Literature Search Request

Search strategy	Database: CAB Abstracts <2000 to 2021 Week 01>
CAB Abstracts on the OVID interface	Search Strategy:
	---
	1 ('covid 19' or 'novel coronavirus' or 'sars-cov-2').mp. (3732)
	2 1 and 202012*.up. (777)
	**************************
	[mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]
Date of coverage	December 2020

Search results

	Date searched	No of items found
CAB Abstracts	14/1/2021	777

References from CAB Abstracts

<1>

Accession Number

 20203588353

Author

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Chandrasinghe, P. C.; Siriwardana, R. C.; Kumarage, S. K.; Munasinghe, B. N. L.; Weerasuriya, A.; Tillakaratne, S.; Pinto, D.; Gunathilake, B.; Fernando, F. R.

Title

A novel structure for online surgical undergraduate teaching during the COVID-19 pandemic.

Abstract

Background: The Covid-19 pandemic necessitated the delivery of online higher education. Online learning is a novel experience for medical education in Sri Lanka. A novel approach to undergraduate surgical learning was taken up in an attempt to improve the interest amongst the students in clinical practice while maximizing the limited contact time. Method: Online learning activity was designed involving medical students from all stages and multi consultant panel discussions. The discussions were designed to cover each topic from basic sciences to high-level clinical management in an attempt to stimulate the student interest in clinical medicine. Online meeting platform with free to use basic plan and a social media platform were used in combination to communicate with the students. The student feedback was periodically assessed for individual topics as well as for general outcome. Lickert scales and numeric scales were used to acquire student agreement on the desired learning outcomes. Results: A total of 1047 student responses for 7 questionnaires were analysed. During a 6-week period, 24 surgical topics were discussed with 51 contact hours. Eighty-seven per cent definitely agreed (highest agreement) with the statement 'students benefitted from the discussions'. Over 95% have either participated for all or most sessions. A majority of the respondents (83.4%) 'definitely agreed' that the discussions helped to improve their clinical sense. Of the total respondents, 79.3% definitely agreed that the discussions helped to build an interest in clinical medicine. Around 90% agreed that both exam-oriented and clinical practice-oriented topics were highly important and relevant. Most widely raised concerns were the poor Internet connectivity and limitation of access to the meeting platform. Conclusion: Online teaching with a novel structure is feasible and effective in a resource-limited setting. Students agree that it could improve clinical interest while meeting the expected learning outcomes.

Publication Type

Journal article.

<2>

Accession Number

  20203588281

Author

  Perondi, B.; Miethke-Morais, A.; Montal, A. C.; Harima, L.; Segurado, A. C.

Title

  Setting up hospital care provision to patients with COVID-19: lessons learnt at a 2400-bed academic tertiary center in Sao Paulo, Brazil.

Source

  Brazilian Journal of Infectious Diseases; 2020. 24(6):570-574. 11 ref.

Publisher

  Elsevier Editora Ltda.

Location of Publisher

  Sao Paulo

Country of Publication

  Brazil

Abstract

  As of August 30, 2020, Brazil ranked second among countries with the highest number of COVID-19 cases, with the city of Sao Paulo as the national epidemic epicenter. Local public healthcare institutions were challenged to respond to a fast-growing hospital demand, reengineering care provision to optimize clinical outcomes and minimize intra-hospital coronavirus infection. In this paper we describe how the largest public hospital complex in Latin America faced this unprecedented burden, managing severe COVID-19 cases while sustaining specialized care to patients with other conditions. In our strategic plan a 900-bed hospital was exclusively designated for COVID-19 care and continuity of care to those not infected with coronavirus ensured in other inpatient facilities. After 152 days, 4241 patients with severe COVID-19 were hospitalized, 70% of whom have already been discharged, whereas the remaining Institutes of the complex successfully maintained high complexity inpatient and urgent/emergency care to non-COVID-19 patients.

Publication Type

  Journal article.

<3>

Accession Number

  20203588060

Author

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McGowan, C. R.; Hellman, N.; Sayem Chowdhury; Abdul Mannan; Newell, K.; Cummings, R.

Title

COVID-19 testing acceptability and uptake amongst the Rohingya and host community in camp 21, Teknaf, Bangladesh.

Source

Conflict and Health; 2020. 14(74). 5 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Facility-based sentinel testing for COVID-19 was implemented in May 2020 to monitor the prevalence of COVID-19 amongst the Rohingya and host community in Cox's Bazar, Bangladesh. In response both to low uptake of testing across all camps, and rumours of an outbreak of an influenza-like illness in May/June 2020, the International Organization for Migration (in partnership with ACAPS) undertook a qualitative study to collect accounts from the Rohingya relating to testing and treatment, and to explore the possibility that what was thought to be an outbreak of influenza may have been COVID-19. The report provided rich descriptions of the apprehension around testing and offered some clear recommendations for addressing these. We developed a testing 'script' in response to these recommendations, deploying it alongside a survey to determine reasons for declining a test. We compared testing uptake before deploying the testing script, and after (controlling for the total number of consultations), to generate a crude measure of the impact of the script on testing uptake. We coded reasons for declining a test thematically, disaggregated by status (Rohingya and host community) and sex. Despite the small sample size our results suggest an increase in testing uptake following the implementation of the script. Reasons provided by patients for declining a test included: (1) fear, (2) the belief that COVID-19 does not exist, that Allah will prevent them from contracting it, or that their symptoms are not caused by COVID-19, (3) no permission from husband/family, and (4) a preference to return at a later time for a test. Our findings largely mirror the qualitative accounts in the International Organization for Migration/ACAPS report and suggest that further testing amongst both populations will be complicated by fear, and a lack of clarity around testing. Our data lend force to the recommendations in the International Organization for Migration/ACAPS report and emphasise that contextual factors play a key role and must be considered in designing and implementing a health response to a novel disease.

Publication Type

Journal article.

<4>

Accession Number

  20203588058

Author

  Shahabi, S.; Jalali, M.; Lankarani, K. B.

Title

  Global health diplomacy: a solution to meet the needs of disabled people in Yemen.

Source

  Conflict and Health; 2020. 14(66). 24 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  People with disabilities (PWD) are one of the most vulnerable groups in society during armed conflicts. According to the statistics, four million persons with disability live in Yemen. Lack of access and the use of rehabilitation services make PWD unable to retrieve their social and economic roles, which would have substantial negative impacts both on their families and community. The conflict escalation, an increase in the number the of displaced, COVID-19 pandemic, an increase in non-communicable diseases, and the exacerbation of poverty and malnutrition have rapidly enhanced the population at risk of disability in Yemen. Accordingly, effective and comprehensive approaches such as global health diplomacy (GHD) should be considered to meet the emerged needs. GHD seeks to address the common challenges in the global health system by involving all key stakeholders and establishing negotiations and diplomatic dialogue among official actors. Given the presence of various regional and international actors in Yemen and the examples of the successful use of GHD under conflict and post-conflict conditions in Iraq and Afghanistan, the use of diplomacy is crucial to respond to the needs of PWD in this war-torn country appropriately.

Publication Type

  Correspondence.

<5>

Accession Number

  20203587937

Author

Ribeiro, L. N. de M.; Fonseca, B. B.

Title

The role of pharmaceutical nanotechnology in the time of COVID-19 pandemic.

Source

Future Microbiology; 2020. 15(16):1571-1582. 99 ref.

Publisher

Future Medicine Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

There is no effective therapy against COVID-19 available so far. In the last months, different drugs have been tested as potential treatments for COVID-19, exhibiting high toxicity and low efficacy. Therefore, nanotechnology can be applied to improve the therapeutic action and minimize the toxicity of loaded drugs. In this review, we summarized the drugs tested as COVID-19 treatment and the advantages of antiviral nanostructured drug-delivery systems. Such systems have demonstrated low in vitro toxicity with better in vitro antiviral activity than free drugs. We believe that this approach should inspire novel nanostructured drug-delivery systems developments to find efficient COVID-19 treatments. Here, we discuss the remaining challenges for such promising nanosystems to be approved for clinical use.

Publication Type

Journal article.

<6>

Accession Number

20203587916

Author

Mohammed Nadershah; Al-Sebaei, M.; Al-Jabbab, A.; Al-Majid, E.; Al-Shadwi, A.

Title

Consensus statement of the Saudi Society of Oral and Maxillofacial Surgery on practice during the COVID-19 pandemic in Saudi Arabia.

Source

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Annals of Saudi Medicine; 2020. 40(6):491-495. 10 ref.

Publisher

King Faisal Specialist Hospital and Research Centre

Location of Publisher

Riyadh

Country of Publication

Saudi Arabia

Abstract

The coronavirus pandemic (COVID-19) has impacted essentially every country's healthcare system in extraordinary ways, fundamentally changing the way we deliver care. The practice of oral and maxillofacial surgery is no exception. In response to this global health crisis, the Saudi Society of Oral and Maxillofacial Surgery has prepared this consensus statement to inform our clinical and other medical colleagues and the public at large on proper procedures during this time. The statement is based on the best scientific evidence available and follows the guidelines put forth by the Saudi Ministry of Health on the COVID-19 response. It explains how to manage and triage oral and maxillofacial patients based on the level of care needed at the time of clinical presentation.

Publication Type

Journal article.

<7>

Accession Number

20203587727

Author

Jasprica, N.; Milovic, M.

Title

Flora of the cobbled streets and pavements in the Mediterranean Old City of Dubrovnik during the COVID-19 lockdown.

Source

Natura Croatica; 2020. 29(1):19-28. 36 ref.

Publisher

Croatian Natural History Museum (Hrvatski prirodoslovni Muzej)

Location of Publisher

Zagreb

Country of Publication

Croatia

Abstract

The flora of the cobbled streets and pavements in the Old City of Dubrovnik, South Croatia, was studied in unusual circumstances with lack of trampling due to the Covid-19 lockdown in April 2020. The features of the flora through analyses of taxonomic composition, life forms, chorotypes and the phytosociological character of species found at eight sites in Dubrovnik Old City and along a transect line on the main street (Stradun) are reported. Altogether, 57 plant species and three subspecies were found. Therophytes, Cosmopolitans and taxa from the Papaveretea rhoeadis and Chenopodietea prevailed. The study highlights the importance of the investigation of both flora and vegetation within Dubrovnik's city historical centre.

Publication Type

Journal article.

<8>

Accession Number

20203587677

Author

Pavli, A.; Smeti, P.; Hadjianastasiou, S.; Theodoridou, K.; Spilioti, A.; Papadima, K.; Andreopoulou, A.; Gkolfinopoulou, K.; Sapounas, S.; Spanakis, N.; Tsakris, A.; Maltezou, H. C.

Title

In-flight transmission of COVID-19 on flights to Greece: an epidemiological analysis.

Source

Travel Medicine and Infectious Disease; 2020. 38. 14 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: The emergence in China in late 2019 and subsequent progression of a pandemic of a respiratory disease named coronavirus disease 2019 (COVID-19) was highly facilitated by international travel. We present 5 cases of probable in-flight transmission in Greece. Methods: We studied international

passengers arriving to or departing from Greece from February 26 through March 9, 2020. Contact tracing extended up to 4 days before the onset of symptoms and focused on close contacts. Close contacts were defined as persons sitting within a distance of <2 m for >15 min, including passengers seated two seats around the index case and all crew members and persons who had close contact with the index case. Results: We investigated 18 international flights with 2224 passengers and 110 crew members. Main countries of departure included Northern Italy, Israel and the United Kingdom. In accordance with the national surveillance investigation, in these flights there were 21 index cases and 891 contact traced cases. Six index cases were symptomatic during the flight. Of the 891 contact traced cases, 4 passengers and 1 crew member developed laboratory-confirmed infection (3 with COVID-19 and 2 with asymptomatic infection); they travelled on the same flight with two COVID-19 cases. Conclusions: Air travel has played a central role in the progression of the COVID-19 pandemic. However, there are scarce data about in-flight transmission. Our extensive investigation showed five cases of probable in-flight transmission. Efforts should be placed in order to ensure the prompt implementation of appropriate infection control measures on board.

Publication Type

  Journal article.

<9>

Accession Number

  20203587528

Author

  Sudipti Arora; Aditi Nag; Jasmine Sethi; Jayana Rajvanshi; Sonika Saxena; Shrivastava, S. K.; Gupta, A. B.

Title

  Sewage surveillance for the presence of SARS-CoV-2 genome as a useful wastewater based epidemiology (WBE) tracking tool in India.

Source

  Water Science and Technology; 2020. 82(12):2823-2836.

Publisher

  IWA Publishing

Location of Publisher

  London

Country of Publication

  UK

Abstract

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The infection with SARS-CoV-2 is reported to be accompanied by the shedding of the virus in fecal samples of infected patients. Earlier reports have suggested that COVID-19 agents can be present in the sewage samples and thus it can be a good indication of the pandemic extent in a community. However, no such studies have been reported in the Indian context. Hence, it becomes absolutely necessary to detect the presence of the SARS-CoV-2 in the wastewater samples from wastewater treatment plants (WWTPs) serving different localities of Jaipur city. Samples from different WWTPs and hospital wastewater samples were collected and wastewater based epidemiology (WBE) studies were carried out using the RT-PCR to confirm the presence of different COVID-19 target genes namely S gene, E gene, ORF1ab gene, RdRp gene and N gene. The results revealed that the untreated wastewater samples showed the presence of SARS-CoV-2 viral genome, which was correlated with the increased number of COVID-19 positive patients from the concerned areas, as reported in the publically available health data. This is the first study that investigated the presence of SARS-CoV-2 viral genome in wastewater, at higher ambient temperature (45 degrees C), further validating WBE as potential tool in predicting and mitigating outbreaks.

Publication Type

 Journal article.

<10>

Accession Number

 20203587527

Author

 Pons, M. N.; Louis, P.; Vignati, D.

Title

 Effect of lockdown on wastewater characteristics: a comparison of two large urban areas.

Source

 Water Science and Technology; 2020. 82(12):2813-2822.

Publisher

 IWA Publishing

Location of Publisher

 London

Country of Publication

 UK

Abstract

 The effect of the lockdown imposed to limit the spread of SARS-CoV-2 in France between March 14 and May 11, 2020 on the wastewater characteristics of two large urban areas (with between 250,000 and 300,000 inhabitants) was studied. The number of outward and inward daily commuters was extracted from

national census databases related to the population and their commuting habits. For urban area A, with the larger number of daily inward commuters (110,000, compared to 53,000 for B), lockdown was observed to have an effect on the monthly load averages of chemical oxygen demand, biochemical oxygen demand, total Kjeldahl nitrogen, total suspended solids and total phosphorus, all of which decreased (confidence level of 95%). This decrease, which varied between 20% and 40% and reached 45% for COD, can be related to the cessation of catering and activities such as hairdressing, which generate large amounts of graywater. The ammonium loads, due to the use of toilets before leaving for work and after returning from work, remained constant. In the case of urban area B, lockdown had no noticeable effect. More data would be necessary in the long term to analyze the effect of changes in the balance between ammonia and carbon sources on the operation of wastewater treatment plants.

Publication Type

  Journal article.

<11>

Accession Number

  20203587512

Author

  Ahmadi, H.; Ebrahimi, A.; Ghorbani, F.

Title

  The impact of COVID-19 pandemic on dental practice in Iran: a questionnaire-based report.

Source

  BMC Oral Health; 2020. 20(354). 41 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: The highly contagious nature of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV2), besides the fact that dental procedures commonly generate blood and saliva droplets that could lead to the contagion have resulted in the closure of many dental clinics. In the present study, we aimed to evaluate the impact of coronavirus disease 2019 (COVID-19) pandemic on dental practice by conducting an online questionnaire among the Iranian dental practitioners and finding their perspectives on the subject. Methods: This report is based on a questionnaire that was conducted among Iranian dentists. The survey

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included questions that evaluate the dentists' perceptions and attitudes toward the COVID-19 pandemic and its effect on their personal life, financial status, and the quality of dental services for patients. Results: Overall, 240 dentists contributed to this study (214 general dentists and 26 specialists). The majority of the participants (n = 170, 70%) did not perform non-emergency procedures during the pandemic. The dental practitioners have suggested several strategies to decrease the risk of contagion, such as reducing treatment sessions (n = 90, 37%), strict triage of patients (n = 156, 64%), and using personal protective equipment (n = 108, 45%). However, most of the dentists (n = 210, 87%) had problems, providing personal protective equipment during the pandemic. Moreover, 97% (n = 234) of the participants reported that they encountered a decrease in their financial income since the eruption of the pandemic. Conclusion: Dental health care workers are at the highest risk of contracting COVID-19. Thus, dental practitioners ought to execute the standard protocols more cautiously during the pandemic. They could also lower their work hours and limit dental procedures to emergency treatments to reduce the risk of COVID-19 transmission. Besides, the public organizations should provide proper equipment for the dental practitioners to decrease the risk of contagion.

Publication Type

 Journal article.

<12>

Accession Number

 20203587013

Author

 Habtamu Sewunet Mekonnen; Abere Woretaw Azagew; Chalachew Adugna Wubneh; Getaneh Mulualem Belay; Nega Tezera Assimamaw; Chilot Desta Agegnehu; Telake Azale; Zelalem Nigussie Azene; Mehari Woldemariam Merid; Atalay Goshu Muluneh; Demiss Mulatu Geberu; Getahun Molla Kassa; Melaku Kindie Yenit; Sewbesew Yitayih Tilahun; Kassahun Alemu Gelaye; Animut Tagele Tamiru; Bayew Kelkay Rade; Eden Bishaw Taye; Asefa Adimasu Taddese; Zewudu Andualem; Henok Dagne; Kiros Terefe Gashaye; Gebisa Guyasa Kabito; Tesfaye Hambisa Mekonnen; Sintayehu Daba Wami; Jember Azanaw; Tsegaye Adane; Mekuriaw Alemayehu

Title

 Community's misconception about COVID-19 and its associated factors among Gondar town residents, Northwest Ethiopia.

Source

 Tropical Medicine and Health; 2020. 48(99). 29 ref.

Publisher

 BioMed Central Ltd

Location of Publisher

 London

Country of Publication

 UK

Abstract

 Background: Despite the implementation of various strategies such as the declaration of COVID-19 emergency state, staying at home, lockdown, and massive protective equipment distribution, still COVID-19 is increasing alarmingly. Therefore, the study aimed to assess the community's perception of COVID-19 and its associated factors in Gondar town, Northwest Ethiopia. Methods: A community-based cross-sectional study was employed among 635 Gondar administrative town residents, from April 20 to April 27, 2020. Study participants were selected using a cluster sampling technique. Data were collected using an interviewer-administered structured questionnaire. Epi-Data version 4.6 and STATA 14 were used for data entry and analysis, respectively. Logistic regressions (bivariable and multivariable) were performed to identify statistically significant variables at $p < 0.05$. Results: Of the 635 study participants, 623 have completed the study with a 98.1% response rate. The mean age of participants was 36.32 years (SD +or- 13.24). The overall magnitude of the community's misconception about COVID-19 stood at 56.9% (349). Age and religion showed a negative association with misconceptions. To be specific, being in the age group of 27-33 (AOR = 0.52, 95% CI 0.32, 0.86) and being a Muslim (AOR 0.51, 95% CI 0.34, 0.78) were negatively associated with the misconception of COVID-19, whereas occupation and awareness showed positive associations with the misconception. To be specific, having an unemployed occupational status (AOR = 1.79, 95% CI 1.14, 2.82) and being unaware of the number of cases of COVID-19 (AOR 1.66, 95% CI 1.05, 2.62) were positively associated with the community's misconception on COVID-19. Conclusion: The magnitude of the community's misconception about COVID-19 among Gondar town residents was high. Age, religion, unemployment, and unawareness about the number of COVID-19 cases were significant factors of misconception about COVID-19. Thus, stakeholders ought to build community perceptions about COVID 19. To resolve misinformation about COVID-19, accurate and relevant information should be provided to the community using appropriate communication media.

Publication Type

 Journal article.

<13>

Accession Number

 20203587012

Author

 Richardson, S.; Ibinaiye, T.; Nikau, J.; Oresanya, O.; Marasciulo, M.; Roca-Feltrer, A.; Rassi, C.; Adesoro, O.

Title

 COVID-19 knowledge, beliefs, prevention behaviours and misinformation in the context of an adapted seasonal malaria chemoprevention campaign in six northern Nigerian States.

Source

 Tropical Medicine and Health; 2020. 48(101). 22 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: Seasonal malaria chemoprevention (SMC) using sulfadoxine-pyrimethamine and amodiaquine is an efficacious intervention for protection of children against Plasmodium falciparum malaria during the rainy season. In response to the global COVID-19 pandemic, Malaria Consortium adapted its SMC delivery model to ensure safety of distributors, data collectors and beneficiaries. We conducted a SMC monitoring survey in July 2020 in the states of Bauchi, Jigawa, Kano, Katsina, Sokoto and Yobe, with questions on COVID-19 prevention behaviours and symptoms, and belief in misinformation. We investigated the associations between receipt of information on COVID-19 by different sources, including from SMC distributors, and these three outcomes using logistic generalised estimating equations. We also considered moderation of effectiveness of message delivery by SMC distributors and adherence to use of face coverings. Results: We obtained a representative sample of 40,157 caregivers of eligible children aged 3-59 months, of which 36,914 (91.92%) reported knowledge of COVID-19. The weighted proportions of respondents who correctly identified COVID-19 prevention behaviours and symptoms, and who reported belief in COVID-19 misinformation, were 80.52% (95% confidence interval [95% CI] 80.02-81.00), 81.72% (95% CI 81.23-82.20) and 22.90% (95% CI 22.24-23.57). Receipt of information on COVID-19 from SMC distributors during the campaign was significantly associated with higher odds of caregiver knowledge of COVID-19 prevention behaviours (odds ratio [OR] 1.78, 95% CI 1.64-1.94, p < 0.001) and symptoms (OR 1.74, 95% CI 1.59-1.90, p < 0.001) and lower odds of belief in COVID-19 misinformation (OR 0.92, 95% CI 0.85-1.00, p = 0.038). The associations between message delivery by SMC distributors and the three outcomes were moderated by their adherence to face covering use. Receipt of information by other sources used to deliver government public health messages, including radio and health facility workers, was also associated with knowledge of COVID-19. Conclusions: Malaria Consortium's SMC programme was successfully adapted in the context of COVID-19 and was a conduit for high-quality public health messages. Standard SMC monitoring and evaluation activities can be adapted to gather evidence on emerging public health issues such as the global COVID-19 pandemic.

Publication Type

  Journal article.

<14>

Accession Number

  20203586734

Author

Mafra, D.; Cardozo, L. F. M. F.; Moraes, C.; Moreira, L. S. G.; Teixeira, K. T. R.; Reis, D. C. M. V.; Fanton, S.; Salarolli, R.; Kalantar-Zadeh, K.; Burrowe, J. D.

Title

Coronavirus disease 2019: quick diet and nutrition guide for patients with chronic kidney disease.

Source

Journal of Renal Nutrition; 2021. 31(1):39-42. 41 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Considering the Covid-19 pandemic and that patients with CKD are included in a high-risk group, a quick nutrition guide for patients with CKD in all stages was developed, and it is available in Portuguese at https://bit.ly/2zfSjl0, in English at https://bit.ly/covid19ckd, in Spanish at https://bit.ly/guia enfermedad renal and in French at https://bit.ly/covid19maladierenale.

Publication Type

Journal article.

<15>

Accession Number

20203586600

Author

D'Aoust, P. M.; Mercier, E.; Montpetit, D.; Jia JianJun; Alexandrov, I.; Neault, N.; Baig, A. T.; Mayne, J.; Zhang Xu; Alain, T.; Langlois MarcAndre; Servos, M. R.; MacKenzie, M.; Figeys, D.; MacKenzie, A. E.; Graber, T. E.; Delatolla, R.

Title

Quantitative analysis of SARS-CoV-2 RNA from wastewater solids in communities with low COVID-19 incidence and prevalence.

Source

Water Research (Oxford); 2021. 188. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  In the absence of an effective vaccine to prevent COVID-19 it is important to be able to track community infections to inform public health interventions aimed at reducing the spread and therefore reduce pressures on health-care, improve health outcomes and reduce economic uncertainty. Wastewater surveillance has rapidly emerged as a potential tool to effectively monitor community infections through measuring trends of RNA signal in wastewater systems. In this study SARS-CoV-2 viral RNA N1 and N2 gene regions are quantified in solids collected from influent post grit solids (PGS) and primary clarified sludge (PCS) in two water resource recovery facilities (WRRF) serving Canada's national capital region, i.e., the City of Ottawa, ON (pop. 1.1M) and the City of Gatineau, QC (pop. 280K). PCS samples show signal inhibition using RT-ddPCR compared to RT-qPCR, with PGS samples showing similar quantifiable concentrations of RNA using both assays. RT-qPCR shows higher frequency of detection of N1 and N2 gene regions in PCS (92.7, 90.6%, n = 6) as compared to PGS samples (79.2, 82.3%, n = 5). Sampling of PCS may therefore be an effective approach for SARS-CoV-2 viral quantification, especially during periods of declining and low COVID-19 incidence in the community. The pepper mild mottle virus (PMMoV) is determined to have a less variable RNA signal in PCS over a three month period for two WRRFs, regardless of environmental conditions, compared to Bacteroides 16S rRNA or human 18S rRNA, making PMMoV a potentially useful biomarker for normalization of SARS-CoV-2 signal. PMMoV-normalized PCS RNA signal from WRRFs of two cities correlated with the regional public health epidemiological metrics, identifying PCS normalized to a fecal indicator (PMMoV) as a potentially effective tool for monitoring trends during decreasing and low-incidence of infection of SARS-Cov-2 in communities.

Publication Type

  Journal article.

<16>

Accession Number

  20203585666

Author

  Chen, J. T.; Krieger, N.

Title

  Revealing the unequal burden of COVID-19 by income, race/ethnicity, and household crowding: US county versus zip code analyses.

Source

 Journal of Public Health Management and Practice; 2021. 27(Suppl. 1):S43-S56. 31 ref.

Publisher

 Lippincott Williams & Wilkins, Inc.

Location of Publisher

 Hagerstown

Country of Publication

 USA

Abstract

  Objective: To overcome the absence of national, state, and local public health data on the unequal economic and social burden of COVID-19 in the United States. Design: We analyze US county COVID-19 deaths and confirmed COVID-19 cases and positive COVID-19 tests in Illinois and New York City zip codes by area percent poverty, percent crowding, percent population of color, and the Index of Concentration at the Extremes. Setting: US counties and zip codes in Illinois and New York City, as of May 5, 2020. Main Outcome Measures: Rates, rate differences, and rate ratios of COVID-19 mortality, confirmed cases, and positive tests by category of county and zip code-level area-based socioeconomic measures. Results: As of May 5, 2020, the COVID-19 death rate per 100 000 person-years equaled the following: 143.2 (95% confidence interval [CI]: 140.9, 145.5) vs 83.3 (95% CI: 78.3, 88.4) in high versus low poverty counties (20% vs <5% of persons below poverty); 124.4 (95% CI: 122.7, 126.0) versus 48.2 (95% CI: 47.2, 49.2) in counties in the top versus bottom quintile for household crowding; and 127.7 (95% CI: 126.0, 129.4) versus 25.9 (95% CI: 25.1, 26.6) for counties in the top versus bottom quintile for the percentage of persons who are people of color. Socioeconomic gradients in Illinois confirmed cases and New York City positive tests by zip code-level area-based socioeconomic measures were also observed. Conclusions: Stark social inequities exist in the United States for COVID-19 outcomes. We recommend that public health departments use these straightforward cost-effective methods to report on social inequities in COVID-19 outcomes to provide an evidence base for policy and resource allocation.

Publication Type

 Journal article.

<17>

Accession Number

 20203585644

Author

 Lett, R.; Bola, R.; Boniface, R.; Eamer, G.; Gathecha, G.

Title

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Conducting an international curriculum review meeting in the age of COVID-19.

Source

Canadian Journal of Surgery; 2020. 63(5):E418-E421. 5 ref.

Publisher

Public Health Agency of Canada

Location of Publisher

Ottawa

Country of Publication

Canada

Abstract

The Canadian Network for International Surgery (CNIS) hosted a workshop in May of 2020 with a goal of critically evaluating Trauma Team Training courses. The workshop was held virtually because of the coronavirus disease 2019 (COVID-19) pandemic. Twenty-three participants attended from 8 countries: Canada, Guyana, Kenya, Nigeria, Switzerland, Tanzania, Uganda and the United States. More participants were able to attend the virtual meeting than the traditional in-person meetings. Web-based videoconference software was used, participants presented prerecorded PowerPoint videos, and questions were raised using a written chat. The review proved successful, with discussions and recommendations for improvements surrounding course quality, lecture content, skills sessions, curriculum variations and clinical practical scenarios. The CNIS's successful experience conducting an online curriculum review involving international participants may prove useful to others proceeding with collaborative projects during the COVID-19 pandemic.

Publication Type

Journal article.

<18>

Accession Number

20203585636

Author

Ayesha Shahid; Amna Javed; Saba Rehman; Rukiya Tariq; Muhammad Ikram; Muhammad Suhail

Title

Evaluation of psychological impact, depression, and anxiety among pregnant women during the COVID-19 pandemic in Lahore, Pakistan.

Source

International Journal of Gynecology & Obstetrics; 2020. 151(3):462-465. 10 ref.

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Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Concerns about vulnerability to COVID-19 and vertical transmission of the disease led to increased incidence of psychological distress, depression, anxiety, and sleep disturbance among pregnant women in Lahore, Pakistan.

Publication Type

  Journal article.

<19>

Accession Number

  20203585635

Author

  Mahajan, N. N.; Kesarwani, S. N.; Shinde, S. S.; Anurupa Nayak; Modi, D. N.; Mahale, S. D.; Gajbhiye, R. K.

Title

  Co-infection of malaria and Dengue in pregnant women with SARS-CoV-2.

Source

  International Journal of Gynecology & Obstetrics; 2020. 151(3):459-462. 3 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Physicians and obstetricians should be vigilant so that they can swiftly identify co-infections of malaria and dengue in pregnant women with COVID-19.

Publication Type

  Journal article.

<20>

Accession Number

  20203585631

Author

  Nieto-Calvache, A. J.; Quintero-Santacruz, M.; Macia-Mejia, C.; Lopez-Giron, M. C.; Vergara-Galliadi, L. M.; Ariza, F.

Title

  Dangerous shortage of blood banks as an indirect effect of SARS-CoV-2: an obstetrics perspective.

Source

  International Journal of Gynecology & Obstetrics; 2020. 151(3):424-430. 35 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Objective: To describe the impact of the SARS-CoV-2 pandemic on the frequency of blood donation (BD) in a Latin American hospital and how the social isolation policy implemented during the pandemic jeopardizes the quality of postpartum hemorrhage (PPH) care due to shortages at blood banks (BB). Methods: A retrospective, descriptive study was conducted, lasting for 31 months, including the start of the pandemic. Frequency of BD and the use of obstetric emergency services was observed. Results: A direct relationship was observed between the pandemic and a decrease in BD. Although emergency obstetric visits decreased, the frequency of deliveries and cases of PPH remained unchanged. After applying strategies to promote voluntary BD, a very slight increase was observed in the frequency of BD, with a negative indicator persisting between donation and blood demand. Conclusion: The SARS-CoV-2 pandemic has led to shortages at BBs. In this context, typical measures to encourage an altruistic attitude toward BD have not had a significant impact. As causes of PPH continue, quality of care may be affected by the current situation at BBs. Governments and institutions must implement new strategies to motivate BD.

Publication Type

  Journal article.

<21>

Accession Number

20203585625

Author

Reeta Mahey; Aparna Sharma; Archana Kumari; Garima Kachhawa; Monica Gupta; Jyoti Meena; Neerja Bhatla

Title

The impact of a segregated team roster on obstetric and gynecology services in response to the COVID-19 pandemic in a tertiary care center in India.

Source

International Journal of Gynecology & Obstetrics; 2020. 151(3):341-346. 10 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Objective: To determine the impact of roster reorganization on ensuring uninterrupted services while providing necessary relief to healthcare workers (HCW) in the obstetrics department of a tertiary care center amid the COVID-19 outbreak. Methods: The COVID-19 rostering response began in April 2020 and evolved in two phases: (1) development of new areas for screening and managing suspected/positive cases of COVID-19; and (2) team segregation according to area of work. The impact of these changes on HCWs and patients was assessed 3 months later. Results: Developing separate areas helped to minimize the risk of exposure of patients and HCWs to those with COVID-19. Residents and consultants worked intensively in clinical areas for 1 week followed by 1-2 weeks of non-clinical or standby assignments, providing adequate opportunity for isolation. Frequent re-evaluation of the roster was nevertheless required as the pandemic progressed. Segregating teams vertically significantly reduced the number of contacts identified on contact tracing and quarantine leaves, while maintaining patient satisfaction with no increase in adverse events. Residents found the roster to be "smart" and "pandemic-appropriate." Conclusion: The "COVID emergency roster" helped ensure quality care with minimum risk of exposure and sufficient breaks for physical and psychological recovery of HCWs. Synopsis A team-based roster in response to COVID-19 outbreak ensured continuity of optimum patient care with minimum exposure and physical and psychological well-being of healthcare workers.

Publication Type

Journal article.

<22>

Accession Number

Author

Namrta Choudhry; Zhao Xin; Xu Dan; Zanin, M.; Chen WeiSan; Yang ZiFeng; Chen JianXin

Title

Chinese therapeutic strategy for fighting COVID-19 and potential small-molecule inhibitors against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Source

Journal of Medicinal Chemistry; 2020. 63(22):13205-13227. 130 ref.

Publisher

American Chemical Society

Location of Publisher

Washington

Country of Publication

USA

Abstract

The coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has led to more than 20 million people infected worldwide with an average mortality rate of 3.6%. This virus poses major challenges to public health, as it not only is highly contagious but also can be transmitted by asymptomatic infected individuals. COVID-19 is clinically difficult to manage due to a lack of specific antiviral drugs or vaccines. In this article, Chinese therapy strategies for treating COVID-19 patients, including current applications of traditional Chinese medicine (TCM), are comprehensively reviewed. Furthermore, 72 small molecules from natural products and TCM with reported antiviral activity against human coronaviruses (CoVs) are identified from published literature, and their potential applications in combating SARS-CoV-2 are discussed. Among these, the clinical efficacies of some accessible drugs such as remdesivir (RDV) and favipiravir (FPV) for COVID-19 are emphatically summarized. We hope this review provides a foundation for managing the worsening pandemic and developing antivirals against SARS-CoV-2.

Publication Type

Journal article.

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<23>

Accession Number

  20203585605

Author

  Clancy, C. J.; Nguyen, M. H.

Title

  Coronavirus disease 2019, superinfections, and antimicrobial development: what can we expect?

Source

  Clinical Infectious Diseases; 2020. 71(10):2736-2743. 49 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Coronavirus disease 2019 (COVID-19) arose at a time of great concern about antimicrobial resistance (AMR). No studies have specifically assessed COVID-19-associated superinfections or AMR. Based on limited data from case series, it is reasonable to anticipate that an appreciable minority of patients with severe COVID-19 will develop superinfections, most commonly pneumonia due to nosocomial bacteria and Aspergillus. Microbiology and AMR patterns are likely to reflect institutional ecology. Broad-spectrum antimicrobial use is likely to be widespread among hospitalized patients, both as directed and empiric therapy. Stewardship will have a crucial role in limiting unnecessary antimicrobial use and AMR. Congressional COVID-19 relief bills are considering antimicrobial reimbursement reforms and antimicrobial subscription models, but it is unclear if these will be included in final legislation. Prospective studies on COVID-19 superinfections are needed, data from which can inform rational antimicrobial treatment and stewardship strategies, and models for market reform and sustainable drug development.

Publication Type

  Journal article.

<24>

Accession Number

  20203585595

Author

  Gu SiLan; Chen YanFei; Wu ZhengJie; Chen YunBo; Gao Hainv; Lv LongXian; Guo FeiFei; Zhang Xuewu; Luo Rui; Huang ChenJie; Lu HaiFeng; Zheng BeiWen; Zhang JiaYing; Yan Ren; Zhang Hua; Jiang HuiYong; Xu QiaoMai; Guo Jing; Gong YiWen; Tang LingLing; Li LanJuan

Title

  Alterations of the gut microbiota in patients with coronavirus disease 2019 or H1N1 influenza.

Source

  Clinical Infectious Diseases; 2020. 71(10):2669-2678. 36 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Background: Coronavirus disease 2019 (COVID-19) is an emerging serious global health problem. Gastrointestinal symptoms are common in COVID-19 patients, and severe acute respiratory syndrome coronavirus 2 RNA has been detected in stool specimens. However, the relationship between the gut microbiome and disease remains to be established. Methods: We conducted a cross-sectional study of 30 patients with COVID-19, 24 patients with influenza A(H1N1), and 30 matched healthy controls (HCs) to identify differences in the gut microbiota by 16S ribosomal RNA gene V3-V4 region sequencing. Results: Compared with HCs, COVID-19 patients had significantly reduced bacterial diversity; a significantly higher relative abundance of opportunistic pathogens, such as Streptococcus, Rothia, Veillonella, and Actinomyces; and a lower relative abundance of beneficial symbionts. Five biomarkers showed high accuracy for distinguishing COVID-19 patients from HCs with an area under the curve (AUC) up to 0.89. Patients with H1N1 displayed lower diversity and different overall microbial composition compared with COVID-19 patients. Seven biomarkers were selected to distinguish the 2 cohorts (AUC = 0.94). Conclusions: The gut microbial signature of patients with COVID-19 was different from that of H1N1 patients and HCs. Our study suggests the potential value of the gut microbiota as a diagnostic biomarker and therapeutic target for COVID-19, but further validation is needed.

Publication Type

  Journal article.

<25>

Accession Number

  20203585323

Author

  Israelow, B.; Song, E.; Mao TianYang; Lu PeiWen; Amit Meir; Liu FeiMei; Alfajaro, M. M.; Wei Jin; Dong, H.; Homer, R. J.; Ring, A.; Wilen, C. B.; Iwasaki, A.

Title

  Mouse model of SARS-CoV-2 reveals inflammatory role of type i interferon signaling.

Source

  Journal of Experimental Medicine; 2020. 217(12). 37 ref.

Publisher

  Rockefeller University Press

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  Severe acute respiratory syndrome-coronavirus 2 (SARS-Cov-2) has caused over 13,000,000 cases of coronavirus disease (COVID-19) with a significant fatality rate. Laboratory mice have been the stalwart of therapeutic and vaccine development; however, they do not support infection by SARS-CoV-2 due to the virus's inability to use the mouse orthologue of its human entry receptor angiotensin-converting enzyme 2 (hACE2). While hACE2 transgenic mice support infection and pathogenesis, these mice are currently limited in availability and are restricted to a single genetic background. Here we report the development of a mouse model of SARS-CoV-2 based on adeno-associated virus (AAV)-mediated expression of hACE2. These mice support viral replication and exhibit pathological findings found in COVID-19 patients. Moreover, we show that type I interferons do not control SARS-CoV-2 replication in vivo but are significant drivers of pathological responses. Thus, the AAV-hACE2 mouse model enables rapid deployment for in-depth analysis following robust SARS-CoV-2 infection with authentic patient-derived virus in mice of diverse genetic backgrounds.

Publication Type

  Journal article.

<26>

Accession Number

  20203585299

Author

  Ibanez, S.; Martinez, O.; Valenzuela, F.; Silva, F.; Valenzuela, O.

Title

  Hydroxychloroquine and chloroquine in COVID-19: should they be used as standard therapy?

Source

  Clinical Rheumatology; 2020. 39(8):2461-2465. 43 ref.

Publisher

  Springer-Verlag

Location of Publisher

  Godalming

Country of Publication

  UK

Abstract

  The pandemic of the new coronavirus, known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has urged the nations to an unprecedented world-wide reaction, including an accelerated exploration of therapeutic options. In the absence of a vaccine and specifically designed antivirals, the medical community has proposed the use of various previously available medications in order to reduce the number of patients requiring prolonged hospitalizations, oxygen therapy, and mechanical ventilation and to decrease mortality from coronavirus disease 2019 (COVID-19). Hydroxychloroquine and chloroquine are among the proposed drugs and are the most widely used so far, despite the lack of robust evidence on their usefulness. The objective of this article is to review and discuss the possible role of these drugs in the therapy of COVID-19.

Publication Type

  Journal article.

<27>

Accession Number

  20203585293

Author

  Guerrero, R.; Bravo, L. E.; Munoz, E.; Grillo Ardila, E. K.; Guerrero, E.

Title

COVID-19: the ivermectin African enigma.

Source

Colombia Medica; 2020. 51(4).

Publisher

Universidad del Valle

Location of Publisher

Cali

Country of Publication

Colombia

Abstract

Introduction: The low frequency of cases and deaths from the SARS-CoV-2 COVID-19 virus in some countries of Africa has called our attention to the unusual behavior of this disease. Aims: Describe SARS-CoV2 infection and death rates in African countries that participated in an intensive Ivermectin mass campaign carried out to control onchocerciasis and compare them with those of countries that did not participate. Methods: Data from 19 countries that participated in the WHO sponsored African Programme for Onchocerciasis Control (APOC), from 1995 until 2015, intended to treat over 90 million people annually and protect an at-risk population of 115 million, were compared with thirty-five (Non-APOC), countries that were not included. Information was obtained from https://www.worldometers.info/coronavirus/database. Results: After controlling for different factors including the Human Development Index, APOC countries, show statistically significant 28% lower mortality (0.72 IC 95% 0,67-0,78) and 8% lower rate of infection (0.92 IC95% 0,91-0,93) due to COVID-19. Conclusions: The incidence in mortality rates and the number of cases is significantly lower among the APOC countries compared to non-APOC countries. That a mass public health preventive campaign against COVID-19 may have taken place, inadvertently, in some African countries with massive community ivermectin use is an attractive hypothesis. Additional studies are needed to confirm it.

Publication Type

Journal article.

<28>

Accession Number

20203585212

Author

Xu Kai; Lu Xiang; Liu Zheng

Title

Our experiences of resuming services in ENT departments in Wuhan, once a COVID-19 epicenter.

Source

  American Journal of Otolaryngology; 2020. 41(6). 7 ref.

Publisher

  Elsevier Inc.

Location of Publisher

  Philadelphia

Country of Publication

  USA

Abstract

  The pandemic of coronavirus disease 2019 (COVID-19) showed a significant impact on routine daily services in departments of otorhinolaryngology head and neck surgery. The city of Wuhan, as the first reported epicenter in the world, resumed medical service since April 8, 2020. As the biggest ENT services provider in Wuhan, we share out institution's triage and screening system in the resuming period.

Publication Type

  Journal article.

<29>

Accession Number

  20203585127

Author

  Enyama, D.; Chelo, D.; Njinkui, D. N.; Kouam, J. M.; Puepi, Y. F. D.; Nkwele, I. M.; Ndenbe, P.; Nguefack, S.; Nguefack, F.; Koum, D. K.; Tetanye, E.

Title

  Impact of the COVID-19 pandemic on pediatricians' clinical activity in Cameroon.

Source

  Archives de Pediatrie; 2020. 27(8):423-427. 26 ref.

Publisher

  Elsevier Masson SAS

Location of Publisher

  Issy-les-Moulineaux

Country of Publication

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France

Abstract

   Background: The outbreak of COVID-19 has imposed many challenges on health systems. The purpose of this study was to describe the impact of the COVID-19 pandemic on the clinical activity of pediatricians. Methods: We conducted a cross-sectional and descriptive online survey among pediatricians practicing in Cameroon. Data were collected through an anonymous pre-tested Google FormR. Results: Among the 118 pediatricians eligible for the survey, 101 responded (85.6%), of whom 61.2% were women. The pediatric outpatient consultations dropped significantly from 60.4% of pediatricians seeing more than 30 patients per week before the pandemic to 9.9% during the pandemic (P < 0.000). According to the occupancy rate of hospitalisation beds, 45.5% of pediatricians reported having 76-100% of pediatric hospitalisation beds occupied per week before the pandemic but no pediatrician reported a similar rate during the pandemic (P < 0.000). There was a significant increase in the use of telehealth, ranging from no pediatrician using telehealth "very frequently" before the pandemic to 23.8% using it during the pandemic (P < 0.000). Most of the pediatricians had at their disposal surgical masks (96%), care gloves (80.2%), hydroalcoholic gel (99.0%), and soap and water (86.1%). For the management of children, 90.1% and 71.3% of pediatricians experienced difficulties accessing COVID-19 PCR and chloroquine, respectively, and 74.3% declared difficulties for proper isolation of patients. More than half (65.3%) of the pediatricians interviewed were "very afraid" or "extremely afraid" of being infected with SARS-Cov-2, respectively 45.5% and 19.8%. The most frequent reasons included fear of infecting their relatives (85.1%) and of developing a severe form of the disease (43.6%). The reluctance to consult health services expressed by the parents was due to: fear of being infected when leaving their home and especially in the health facility (96%), strict compliance with confinement (30.7%), and financial difficulties of families (13.9%). Conclusion: This work highlights the impact of the coronavirus pandemic on the clinical activity of Cameroonian pediatricians. Since the beginning of the pandemic, there has been a significant drop in the use of health facilities, which probably has a negative impact on children's overall level of health. Although the preventive measures explain this drop in attendance at health facilities, the parents' fear of being infected when leaving the house was the predominant reason likely to explain this drop in attendance at health facilities. This could constitute an axis for developing messages to parents to encourage a gradual return to child health services.

Publication Type

   Journal article.

<30>

Accession Number

   20203585118

Author

   Schmidt, F.; Weisblum, Y.; Muecksch, F.; Hoffmann, H. H.; Michailidis, E.; Lorenzi, J. C. C.; Mendoza, P.; Rutkowska, M.; Bednarski, E.; Gaebler, C.; Agudelo, M.; Cho, A.; Wang ZiJun; Gazumyan, A.; Cipolla, M.; Caskey, M.; Robbiani, D. F.; Nussenzweig, M. C.; Rice, C. M.; Hatziioannou, T.; Bieniasz, P. D.

Title

   Measuring SARS-CoV-2 neutralizing antibody activity using pseudotyped and chimeric viruses.

Source

 Journal of Experimental Medicine; 2020. 217(11). 44 ref.

Publisher

 Rockefeller University Press

Location of Publisher

 New York

Country of Publication

 USA

Abstract

  The emergence of SARS-CoV-2 and the ensuing explosive epidemic of COVID-19 disease has generated a need for assays to rapidly and conveniently measure the antiviral activity of SARS-CoV-2-specific antibodies. Here, we describe a collection of approaches based on SARS-CoV-2 spike-pseudotyped, single-cycle, replication-defective human immunodeficiency virus type-1 (HIV-1), and vesicular stomatitis virus (VSV), as well as a replication-competent VSV/SARS-CoV-2 chimeric virus. While each surrogate virus exhibited subtle differences in the sensitivity with which neutralizing activity was detected, the neutralizing activity of both convalescent plasma and human monoclonal antibodies measured using each virus correlated quantitatively with neutralizing activity measured using an authentic SARS-CoV-2 neutralization assay. The assays described herein are adaptable to high throughput and are useful tools in the evaluation of serologic immunity conferred by vaccination or prior SARS-CoV-2 infection, as well as the potency of convalescent plasma or human monoclonal antibodies.

Publication Type

 Journal article.

<31>

Accession Number

  20203585067

Author

  Mairesse, A.; Favresse, J.; Eucher, C.; Elsen, M.; Tre-Hardy, M.; Haventith, C.; Gruson, D.; Dogne, J. M.; Douxfils, J.; Gobbels, P.

Title

  High clinical performance and quantitative assessment of antibody kinetics using a dual recognition assay for the detection of SARS-CoV-2 IgM and IgG antibodies.

Source

  Clinical Biochemistry; 2020. 86:23-27. 26 ref.

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Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Objectives: Several serological SARS-CoV-2 immunoassays have been developed recently but require external validation before widespread use. This study aims at assessing the analytical and clinical performance of the iFlashR anti-SARS-CoV-2 chemiluminescence assay for the detection of both IgM and IgG antibodies. The kinetics of the antibody response was also evaluated. Design & Methods: The precision, carry-over, linearity, limit of blank, detection and quantification were assessed. Sensitivity analysis was performed by using 178 sera collected from 154 RT-PCR confirmed COVID-19 patients. The specificity analysis was performed from 75 selected non-SARS-CoV-2 sera with a potential cross-reaction to the SARS-CoV-2 immunoassay. Results: This iFlashR SARS-CoV-2 assay showed excellent analytical performance. After 2 weeks since symptom onset, the sensitivities for IgM and IgG were 62.2% (95% CI: 52.3-71.2%) and 92.9%% (95% CI: 85.7-96.7%), respectively by using the cut-off provided by the manufacturer. After cut-off optimization (i.e. >2.81 for IgM and >4.86 for IgG), the sensitivity for IgM and IgG were 81.6 (95% CI: 72.7-88.1%) and 95.9% (95% CI: 89.4-98.7%), respectively. Optimized cut-off for IgG improved the sensitivity to reach 100% (95%CI: 87.6-100) from 28 days since symptom onset. Conclusions: This study shows that the iFlashR SARS-CoV-2 assay from YHLO biotechnology, has satisfactory analytical performance. Nevertheless, the sensitivity of the IgM is limited for a proper clinical use compared to IgG. The determination of anti-SARS-CoV-2 IgG antibodies from 28 days since symptom onset was associated with high sensitivity, especially using optimized cut-offs (i.e. 100%).

Publication Type

Journal article.

<32>

Accession Number

20203584566

Author

Shen YeHua; Cheng ChienShan; Wang Peng; Zhu Xu; Lei GuangYan; Fang Yong; Li HaiLiang; Fan WeiJun; Pan HongMing; Tang Zhe; Ma KuanSheng; Li XiaoGuang; Lin ZhengYu; Zhuang YiPing; Ye Xin; Zhai Bo; Han Yue; Huang JinHua; Xu HuiXiong; Zheng RongQin; Chen RuFu; Yu Jie; Xu Dong; Wang ZhongMin; Meng ZhiQiang

Title

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CSCO ablation expert workshop report: recommendations for the management of tumor ablation during the coronavirus disease 2019 epidemic.

Source

  Journal of Cancer Research and Therapeutics; 2020. 16(2):350-355. 20 ref.

Publisher

  Medknow Publications

Location of Publisher

  Mumbai

Country of Publication

  India

Abstract

  The coronavirus disease 2019 (COVID-19) has become a global pandemic since its outbreak in December 2019, which posed a threat to the safety and well-being of people on a global scale. Cancer patients are at high risk of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, and their critical morbidity and case fatality rates are high. The ablation expert committee of the Chinese Society of Clinical Oncology compiled corresponding expert recommendations. These recommendations summarize the preventive measures and management of tumor ablation treatment in medical institutions, including outpatient clinics, oncology wards, ablation operation room, and postablation follow-ups in accordance with the guidelines and protocols imposed by the National Health Commission of the People's Republic of China and the experience in management and prevention according to various hospitals. This consensus aims to reduce and prevent the spread of SARS-CoV-2 and its cross-infection between cancer patients in hospitals and provide regulatory advice and guidelines for medical personnel.

Publication Type

  Journal article.

<33>

Accession Number

  20203584435

Author

  Keske, S.; Mutters, N. T.; Tsioutis, C.; Ergonul, O.

Title

  Influenza vaccination among infection control teams: a EUCIC survey prior to COVID-19 pandemic.

Source

  Vaccine; 2020. 38(52):8357-8361. 11 ref.

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Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

We aimed to describe the influenza vaccination rate and its determinants among infection control team (ICT) across different countries. Online multilingual survey consisting of 23 items, between 17 May -15 July of 2019 targeting the opinions and practices of ICTs regarding the 2018-2019 influenza season was employed. Participants were reached via European Society of Clinical Microbiology and Infectious Diseases (ESCMID) and European Union Certificate for Infection Control (EUCIC) newsletters, social media, and national societies. In total, 899 participants from 56 countries responded to the survey. The overall vaccination rate was 76%, being the highest in Finland, Portugal, Norway, and Israel (100%), whereas the lowest in Italy (68%) and Turkey (39%). Influenza vaccination rate was 86% among IC physicians and 52% among IC nurses. The most significant factors affecting participants' decision were personal influenza vaccine experience (49%) and attitude of the scientific authorities (48%). In multivariate analysis, vaccination of the ICT head (OR: 16.04, 95%CI: 8.4-30.8, p < 0.001) and having free vaccine (OR: 7.56, 95%CI: 2.1-27.4, p=0.02) were found to be the strongest predictors for influenza vaccination, whereas working in Turkey (OR: 0.41, 95%CI: 0.22-0.77, p=0.006) and being an IC nurse (OR:0.43, 95%CI: 0.24-0.80, p=0.007) were significantly associated with not having been vaccinated. In conclusion, COVID-19 pandemic increased the importance of protection against respiratory viruses including influenza. Vaccination strategies should have a special emphasis on IC nurses, who have a relatively lower vaccination rate, should enhance the vaccination of the ICT leaders, and put effort to provide free availability of the influenza vaccine.

Publication Type

Journal article.

<34>

Accession Number

20203584409

Author

Rawson, T. M.; Moore, L. S. P.; Zhu, N.; Ranganathan, N.; Skolimowska, K.; Gilchrist, M.; Satta, G.; Cooke, G.; Holmes, A.

Title

Bacterial and fungal coinfection in individuals with coronavirus: a rapid review to support COVID-19 antimicrobial prescribing.

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Source

 Clinical Infectious Diseases; 2020. 71(9):2459-2468. 52 ref.

Publisher

 Oxford University Press

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

  Background: To explore and describe the current literature surrounding bacterial/fungal coinfection in patients with coronavirus infection. Methods: MEDLINE, EMBASE, and Web of Science were searched using broad-based search criteria relating to coronavirus and bacterial coinfection. Articles presenting clinical data for patients with coronavirus infection (defined as SARS-1, MERS, SARS-CoV-2, and other coronavirus) and bacterial/fungal coinfection reported in English, Mandarin, or Italian were included. Data describing bacterial/fungal coinfections, treatments, and outcomes were extracted. Secondary analysis of studies reporting antimicrobial prescribing in SARS-CoV-2 even in absence of coinfection was performed. Results: 1007 abstracts were identified. Eighteen full texts reporting bacterial/fungal coinfection were included. Most studies did not identify or report bacterial/fungal coinfection (85/140; 61%). Nine of 18 (50%) studies reported on COVID-19, 5/18 (28%) on SARS-1, 1/18 (6%) on MERS, and 3/18 (17%) on other coronaviruses. For COVID-19, 62/806 (8%) patients were reported as experiencing bacterial/fungal coinfection during hospital admission. Secondary analysis demonstrated wide use of broad-spectrum antibacterials, despite a paucity of evidence for bacterial coinfection. On secondary analysis, 1450/2010 (72%) of patients reported received antimicrobial therapy. No antimicrobial stewardship interventions were described. For non-COVID-19 cases, bacterial/fungal coinfection was reported in 89/815 (11%) of patients. Broad-spectrum antibiotic use was reported. Conclusions: Despite frequent prescription of broad-spectrum empirical antimicrobials in patients with coronavirus-associated respiratory infections, there is a paucity of data to support the association with respiratory bacterial/fungal coinfection. Generation of prospective evidence to support development of antimicrobial policy and appropriate stewardship interventions specific for the COVID-19 pandemic is urgently required.

Publication Type

 Journal article.

<35>

Accession Number

 20203584407

Author

Chan FukWoo [Chan, F. W. J.]; Zhang Jinxia [Zhang, J. A.]; Yuan ShuoFeng; Poon KwokMan [Poon, K. M. V.]; Chan ChungSing [Chan, C. S. C.]; Lee ChakYiu [Lee, C. Y. A.]; Chan WanMui; Fan ZhiMeng; Tsoi HoiWah; Wen Lei; Liang RongHui; Cao JianLi; Chen YanXia; Tang KaiMing; Luo CuiTing; Cai JianPiao; Kok KinHang; Chu Hin; Chan KwokHung; Sridhar, S.; Chen ZhiWei; Chen HongLin; To KaiWang [To, K. W. K.]; Yuen KwokYung

Title

Simulation of the clinical and pathological manifestations of coronavirus disease 2019 (COVID-19) in a golden Syrian hamster model: implications for disease pathogenesis and transmissibility.

Source

Clinical Infectious Diseases; 2020. 71(9):2428-2446. 34 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: A physiological small-animal model that resembles COVID-19 with low mortality is lacking. Methods: Molecular docking on the binding between angiotensin-converting enzyme 2 (ACE2) of common laboratory mammals and the receptor-binding domain of the surface spike protein of SARS-CoV-2 suggested that the golden Syrian hamster is an option. Virus challenge, contact transmission, and passive immunoprophylaxis studies were performed. Serial organ tissues and blood were harvested for histopathology, viral load and titer, chemokine/cytokine level, and neutralizing antibody titer. Results: The Syrian hamster could be consistently infected by SARS-CoV-2. Maximal clinical signs of rapid breathing, weight loss, histopathological changes from the initial exudative phase of diffuse alveolar damage with extensive apoptosis to the later proliferative phase of tissue repair, airway and intestinal involvement with viral nucleocapsid protein expression, high lung viral load, and spleen and lymphoid atrophy associated with marked chemokine/cytokine activation were observed within the first week of virus challenge. The mean lung virus titer was between 105 and 107 TCID50/g. Challenged index hamsters consistently infected naive contact hamsters housed within the same cages, resulting in similar pathology but not weight loss. All infected hamsters recovered and developed mean serum neutralizing antibody titers 1:427 14 days postchallenge. Immunoprophylaxis with early convalescent serum achieved significant decrease in lung viral load but not in lung pathology. No consistent nonsynonymous adaptive mutation of the spike was found in viruses isolated from the infected hamsters. Conclusions: Besides satisfying Koch's postulates, this readily available hamster model is an important tool for studying transmission, pathogenesis, treatment, and vaccination against SARS-CoV-2.

Publication Type

Journal article.

<36>

Accession Number

  20203584364

Author

  Zinn, M. K.; Bockmuhl, D.

Title

  Did granny know best? Evaluating the antibacterial, antifungal and antiviral efficacy of acetic acid for home care procedures.

Source

  BMC Microbiology; 2020. 20(265). 54 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: Acetic acid has been used to clean and disinfect surfaces in the household for many decades. The antimicrobial efficacy of cleaning procedures can be considered particularly important for young, old, pregnant, immunocompromised people, but may also concern other groups, particularly with regards to the COVID-19 pandemics. This study aimed to show that acetic acid exhibit an antibacterial and antifungal activity when used for cleaning purposes and is able to destroy certain viruses. Furthermore, a disinfecting effect of laundry in a simulated washing cycle has been investigated. Results: At a concentration of 10% and in presence of 1.5% citric acid, acetic acid showed a reduction of > 5-log steps according to the specifications of DIN EN 1040 and DIN EN 1275 for the following microorganisms: P. aeruginosa, E. coli, S. aureus, L. monocytogenes, K. pneumoniae, E. hirae and A. brasiliensis. For MRSA a logarithmic reduction of 3.19 was obtained. Tests on surfaces according to DIN EN 13697 showed a complete reduction (> 5-log steps) for P. aeruginosa, E. coli, S. aureus, E. hirae, A. brasiliensis and C. albicans at an acetic acid concentration of already 5%. Virucidal efficacy tests according to DIN EN 14476 and DIN EN 16777 showed a reduction of 4-log-steps against the Modified Vaccinia virus Ankara (MVA) for acetic acid concentrations of 5% or higher. The results suggest that acetic acid does not have a disinfecting effect on microorganisms in a dosage that is commonly used for cleaning. However, this can be achieved by increasing the concentration of acetic acid used, especially when combined with citric acid. Conclusions: Our results show a disinfecting effect of acetic acid in a concentration of 10% and in presence of 1.5% citric acid against a variety of microorganisms. A virucidal effect against enveloped viruses could also be proven. Furthermore, the results showed a considerable antimicrobial effect of acetic acid when used in domestic laundry procedures.

Publication Type

  Journal article.

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<37>

Accession Number

  20203584345

Author

  Al-Balas, M.; Al-Balas, H. I.; Jaber, H. M.; Obeidat, K.; Al-Balas, H.; Aborajooh, E. A.; Al-Taher, R.; Al-Balas, B.

Title

  Distance learning in clinical medical education amid COVID-19 pandemic in Jordan: current situation, challenges, and perspectives.

Source

  BMC Medical Education; 2020. 20(341). 20 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: As COVID-19 has been declared as a pandemic disease by the WHO on March 11th, 2020, the global incidence of COVID-19 disease increased dramatically. In response to the COVID-19 situation, Jordan announced the emergency state on the 19th of March, followed by the curfew on 21 March. All educational institutions have been closed as well as educational activities including clinical medical education have been suspended on the 15th of March. As a result, Distance E-learning emerged as a new method of teaching to maintain the continuity of medical education during the COVID-19 pandemic related closure of educational institutions. Distance E-Learning is defined as using computer technology to deliver training, including technology-supported learning either online, offline, or both. Before this period, distance learning was not considered in Jordanian universities as a modality for education. This study aims to explore the situation of distance E-learning among medical students during their clinical years and to identify possible challenges, limitations, satisfaction as well as perspectives for this approach to learning. Methods: This cross-sectional study is based on a questionnaire that was designed and delivered to medical students in their clinical years. For this study, the estimated sample size (n = 588) is derived from the online Raosoft sample size calculator. Results: A total of 652 students have completed the questionnaire, among them, 538 students (82.5%) have participated in distance learning in their medical schools amid COVID-19 pandemic. The overall satisfaction rate in medical distance learning was 26.8%, and it was significantly higher in students with previous experience in distance learning in their medical schools as well as when instructors were actively participating in learning sessions, using multimedia and devoting adequate time for their sessions. The delivery of educational material using synchronous live streaming sessions represented the major modality of teaching and Internet streaming quality and coverage was the main challenge that was reported by 69.1% of students. Conclusion: With advances in technologies and social media, distance learning is a new and rapidly growing approach for undergraduate, postgraduate, and

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health care providers. It may represent an optimal solution to maintain learning processes in exceptional and emergency situations such as COVID-19 pandemic. Technical and infrastructural resources reported as a major challenge for implementing distance learning, so understanding technological, financial, institutional, educators, and student barriers are essential for the successful implementation of distance learning in medical education.

Publication Type

 Journal article.

<38>

Accession Number

 20203584251

Author

 Gao Wei; Chen Si; Wang Kun; Chen RongZhang; Guo Qian; Lu JingJing; Wu XiaoDong; He YanAn; Yan QiaoYun; Wang ShengYun; Wang FeiLong; Jin Li; Hua Jing; Li Qiang

Title

 Clinical features and efficacy of antiviral drug, Arbidol in 220 nonemergency COVID-19 patients from East-West-Lake Shelter Hospital in Wuhan: a retrospective case series.

Source

 Virology Journal; 2020. 17(162). 11 ref.

Publisher

 BioMed Central Ltd

Location of Publisher

 London

Country of Publication

 UK

Abstract

  Objective: We aimed to describe the features of 220 nonemergency (mild or common type) COVID-19 patients from a shelter hospital, as well as evaluate the efficiency of antiviral drug, Arbidol in their disease progressions. Methods: Basic clinical characteristics were described and the efficacy of Arbidol was evaluated based on gender, age, maximum body temperature of the patients. Results: Basically, males had a higher risk of fever and more onset symptoms than females. Arbidol could accelerate fever recovery and viral clearance in respiratory specimens, particularly in males. Arbidol also contributed to shorter hospital stay without obvious adverse reactions. Conclusions: In the retrospective COVID-19 cohort, gender was one of the important factors affecting patient's conditions. Arbidol showed several beneficial effects in these

patients, especially in males. This study brought more researches enlightenment in understanding the emerging infectious disease.

Publication Type

Journal article.

<39>

Accession Number

20203584246

Author

Grandvuillemin, A.; Fresse, A.; Cholle, C.; Yamani, S.; Dautriche, A.

Title

Adverse drug reactions of hydroxychloroquine: analysis of French pre-pandemic SARS-CoV2 pharmacovigilance data. (Special issue: Drugs and COVID-19.)

Source

Therapie; 2020. 75(4):385-387.

Publisher

Elsevier Masson

Location of Publisher

Paris

Country of Publication

France

Publication Type

Correspondence.

<40>

Accession Number

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20203584243

Author

Gerard, A.; Romani, S.; Fresse, A.; Viard, D.; Parassol, N.; Granvuillemin, A.; Chouchana, L.; Rocher, F.; Drici, M. D.

Title

"Off-label" use of hydroxychloroquine, azithromycin, lopinavir-ritonavir and chloroquine in COVID-19: a survey of cardiac adverse drug reactions by the French Network of Pharmacovigilance Centers. (Special issue: Drugs and COVID-19.)

Source

Publisher

Elsevier Masson

Location of Publisher

Paris

Country of Publication

France

Abstract

Introduction: COVID-19 is an unprecedented challenge for physicians and scientists. Several publicized drugs are being used with not much evidence of their efficacy such as hydroxychloroquine, azithromycin or lopinavir-ritonavir. Yet, the cardiac safety of these drugs in COVID-19 deserves scrutiny as they are known to foster cardiac adverse ADRs, notably QTc interval prolongation on the electrocardiogram and its arrhythmogenic consequences. Methods: Since March 27th, 2020, the French Pharmacovigilance Network directed all cardiac adverse drug reactions associated with "off-label" use of hydroxychloroquine, azithromycin and lopinavir-ritonavir in COVID-19 to the Nice Regional Center of Pharmacovigilance. Each Regional Center of Pharmacovigilance first assessed causality of drugs. We performed a specific analysis of these cardiac adverse drug reactions amidst an array of risk factors, reassessed the electrocardiograms and estimated their incidence in coronavirus disease 2019. Results: In one month, 120 reports of cardiac adverse drug reactions have been notified, 103 of which associated with hydroxychloroquine alone (86%), or associated with azithromycin (60%). Their estimated incidence is 0.77% to 1.54% of all patients, notwithstanding strong underreporting. Lopinavir-ritonavir came third with 17 reports (14%) and chloroquine fourth with 3 reports (2.5%). There were 8 sudden, unexplained or aborted deaths (7%), 8 ventricular arrhythmias (7%), 90 reports of prolonged QTc (75%) most of them "serious" (64%), 48 of which proved 500 ms, 20 reports of severe conduction disorders (17%) and 5 reports of other cardiac causes (4%). Six reports derived from automedication. Discussion and conclusion: "Off-label" use of treatments in COVID-19 increases the risk of cardiac ADRs, some of them avoidable. Even if these drugs are perceived as familiar, they are used in patients with added risk factors caused by infection. Precautions should be taken to mitigate the risk, even if they will be proven efficacious.

Publication Type

Journal article.

<41>

Accession Number

 20203584242

Author

 Roustit, M.; Guilhaumou, R.; Molimard, M.; Drici, M. D.; Laporte, S.; Montastruc, J. L.

Title

 Chloroquine and hydroxychloroquine in the management of COVID-19: much kerfuffle but little evidence. (Special issue: Drugs and COVID-19.)

Source

 Therapie; 2020. 75(4):363-370.

Publisher

 Elsevier Masson

Location of Publisher

 Paris

Country of Publication

 France

Abstract

 Chloroquine and hydroxychloroquine are drugs that have shown in vitro activity on the replication of certain coronaviruses. In the context of the SARS-Cov-2 epidemic, the virus responsible for the novel coronavirus disease (COVID-19), these two drugs have been proposed as possible treatments. The results of the first clinical studies evaluating the effect of hydroxychloroquine do not support any efficacy of this drug in patients with COVID-19, due to major methodological weaknesses. Yet, these preliminary studies have aroused considerable media interest, raising fears of massive and uncontrolled use. In the absence of evidence of clinical benefits, the main risk is of exposing patients unnecessarily to the well-known adverse effects of hydroxychloroquine, with a possibly increased risk in the specific setting of COVID-19. In addition, widespread use outside of any recommendation risks compromising the completion of good quality clinical trials. The chloroquine hype, fueled by low-quality studies and media announcements, has yielded to the implementation of more than 150 studies worldwide. This represents a waste of resources and a loss of opportunity for other drugs to be properly evaluated. In the context of emergency, rigorous trials are more than ever needed in order to have, as soon as possible, reliable data on drugs that are possibly effective against the disease. Meanwhile, serious adverse drug reactions have been reported in patients with COVID-19 receiving hydroxychloroquine, justifying to limit its prescription, and to perform suitable cardiac and therapeutic drug monitoring.

Publication Type

 Journal article.

<42>

Accession Number

  20203584237

Author

  Alexandre, J.; Cracowski, J. L.; Richard, V.; Bouhanick, B.

Title

  Drugs acting on renin angiotensin system and use in ill patients with COVID-19. (Special issue: Drugs and COVID-19.)

Source

  Therapie; 2020. 75(4):319-325.

Publisher

  Elsevier Masson

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  Some concerns about the prescription of drugs acting on the renin-angiotensin system (angiotensin-converting enzyme 1 (ACE1) inhibitors, ACEi; angiotensin II type 1 receptor blockers, ARB) have emerged due to SARS COV2 and COVID-19 pandemic. These very legitimate questions are directly the consequence of the recent recognition of the fundamental role of ACE2 (angiotensin-converting enzyme 2) in COVID-19 infection. Indeed, SARS COV2 utilizes ACE2 as a membrane receptor to enter target cells. Consequently, the putative impact of drugs modulating the renin-angiotensin system on the risk of developing severe or fatal severe acute respiratory syndrome in case of COVID-19 infection emerged. As a membrane-bound enzyme (carboxypeptidase), ACE2 inactivates angiotensin II and therefore physiologically counters its effects. Due to a different structure compared with ACE1, ACE2 is insensitive to ACEIs. In vitro, both ARBs and ACEi appear able to upregulate ACE2 tissue expression and activity but these results were not confirmed in Humans. The exact impact of both ARBs and ACEis on COVID-19 infection is definitively known and preliminary results are even in favor of a protective role confers by these drugs. Due to the crucial role of ACE2, some groups support the hypothesis that a modulation of ACE2 expression could represent a valuable therapeutic target could confer protective properties against inflammatory tissue damage in COVID-19 infection. So, studies are currently ongoing to test the impact of elevated ACE2 membrane expression, administration of ARB and infusion of soluble ACE2. In summary, based on the currently available evidences and as recommended by several medical societies, ACEi or ARB should not be systematically discontinued because to date no safety signal was raised with the use of these drugs.

Publication Type

  Journal article.

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<43>

Accession Number

 20203584060

Author

 Rodriguez-Diaz, C. E.; Guilamo-Ramos, V.; Mena, L.; Hall, E.; Honermann, B.; Crowley, J. S.; Baral, S.; Prado, G. J.; Marzan-Rodriguez, M.; Beyrer, C.; Sullivan, P. S.; Millett, G. A.

Title

 Risk for COVID-19 infection and death among Latinos in the United States: examining heterogeneity in transmission dynamics.

Source

 Annals of Epidemiology; 2020. 52:46-53.e2. 42 ref.

Publisher

 Elsevier

Location of Publisher

 New York

Country of Publication

 USA

Abstract

 Purpose: The purpose of this study was to ascertain COVID-19 transmission dynamics among Latino communities nationally. Methods: We compared predictors of COVID-19 cases and deaths between disproportionally Latino counties (17.8% Latino population) and all other counties through May 11, 2020. Adjusted rate ratios (aRRs) were estimated using COVID-19 cases and deaths via zero-inflated binomial regression models. Results: COVID-19 diagnoses rates were greater in Latino counties nationally (90.9 vs. 82.0 per 100,000). In multivariable analysis, COVID-19 cases were greater in Northeastern and Midwestern Latino counties (aRR: 1.42, 95% CI: 1.11-1.84, and aRR: 1.70, 95% CI: 1.57-1.85, respectively). COVID-19 deaths were greater in Midwestern Latino counties (aRR: 1.17, 95% CI: 1.04-1.34). COVID-19 diagnoses were associated with counties with greater monolingual Spanish speakers, employment rates, heart disease deaths, less social distancing, and days since the first reported case. COVID-19 deaths were associated with household occupancy density, air pollution, employment, days since the first reported case, and age (fewer <35 yo). Conclusions: COVID-19 risks and deaths among Latino populations differ by region. Structural factors place Latino populations and particularly monolingual Spanish speakers at elevated risk for COVID-19 acquisition.

Publication Type

 Journal article.

<44>

Accession Number

  20203583979

Author

  Nakat, Z.; Bou-Mitri, C.

Title

  COVID-19 and the food industry: readiness assessment.

Source

  Food Control; 2021. 121. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The COVID-19 pandemic has hit hard on the world economy and global health. Where most businesses are completely closed following governments restrictions, the food sector across the supply chain must remain operational in order to feed the nations. In such a challenging time, keeping the workers healthy and safe is critical while maintaining a high level of food safety and consumer confidence. Against a backdrop of heightened uncertainty, up-to-date and reliable information is more important than ever, both for regulators and this sector. This literature review aims at assembling all current knowledge about COVID-19 and its impact on the food industry. It is an exhaustive compilation of relevant public information and guidance published by the World Health Organization (WHO), and collected from 11 governmental and 10 non-governmental sources as well as 25 peer-reviewed articles published in scientific journals since the beginning of the crisis till June 5th, 2020. This paper could be of assistance to educators, researchers, and policy makers. It could also serve as an assessment tool to ensure business continuity and to determine the level of food industry readiness providing reassurance to all stakeholders during these unprecedented times.

Publication Type

  Journal article.

<45>

Accession Number

  20203583953

Author

  Faour-Klingbeil, D.; Osaili, T. M.; Al-Nabulsi, A. A.; Jemni, M.; Todd, E. C. D.

Title

  The public perception of food and non-food related risks of infection and trust in the risk communication during COVID-19 crisis: a study on selected countries from the Arab region.

Source

  Food Control; 2021. 121.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The coronavirus pandemic caused a state of panic worldwide. Mixed messages were given about its risk and how to contain it, when trust in authorities and reliable scientific information are essential to reduce unnecessary scares and inappropriate risk perceptions. We know little about public concerns and opinions in health authorities in the Arab world. Thus, an attempt was made to generate such information through a web-based survey. A total of 1074 subjects from Lebanon, Jordan, and Tunisia were recruited to explore their perception of food and non-food risks of infection and the influence of the source of information, trust, and attitudes towards the local authorities' communication of risk. Seventy percent of the respondents were concerned that COVID-19 may be transmitted through food. The perception of risk from touching contaminated surfaces and food packaging and being exposed to infected people during food shopping was even higher. For only less than half of the respondents, the information from local authorities was considered trustworthy and the associated risk communication and response to false rumors were timely, effective, and clear. But the satisfaction level among the Jordanians was remarkably stronger than for the Lebanese and Tunisian respondents. The demographic factors, trust in information, and attitudes towards authorities' performance in risk communication did not influence risk perceptions. Respondents' knowledge was limited based on their chief sources of information, such as social media, local news media broadcasts, and announcements by the World Health Organization. Our conclusion is that unnecessary fear increases among the public when risks that impact heath are unknown. More research in the Arab region is needed to understand the determinants of risk perceptions considering psychological factors on the risk to health. Unfortunately, it is difficult to restrict or contain misleading information from various forms of social media. We recommend that for reducing fear and building confidence with the public for appropriate action during the pandemic, local authorities should enhance the quality and level of details of the information that they share during such crises.

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Publication Type

  Journal article.

<46>

Accession Number

  20203583871

Author

  Thomas, D. S.; Yesodharan, D. K.; Arulappan, J.

Title

  Emerging pharmacotherapy for COVID-19 treatment: an integrative review.

Source

  International Journal of Nutrition, Pharmacology, Neurological Diseases; 2020. 10(4):171-178.

Publisher

  Medknow Publications

Location of Publisher

  Mumbai

Country of Publication

  India

Abstract

  Background: COVID-19 has become the global pandemic incapacitating the health systems and demanding investigation of possible pharmacotherapeutic options against SARS CoV-2. Although social distancing, hand sanitizing and supportive care remain as the preventive and management measures of COVID-19, clinical efficacy of various therapeutic agents is being tried out simultaneously to reduce the mortality associated with the disease. Background: To ascertain the potential drugs/treatment for COVID 19 from the published literature across the world from its origin until June 2020. Methods: A literature search was done in CINAHL, Pub Med, Google Scholar, Science Direct, Springer, Wiley, EEEE, and Medline computerized repositories for complete texts from December 2019 until June 2020. The search terms used were COVID-19, treatment, antimalarial, antibiotics, antiretroviral, antiviral, plasma, immunoglobulin, heparin and immunosuppressant. The inclusion criteria adopted in the study were original research articles with current treatment process and potential drugs used in COVID 19 patients, primary data, published in English and full article available for free download. Results: There is no absolute single pharmacotherapeutic measure identified till date to cure this disease. The studies reviewed reported that the clinical improvement of the disease could be due to the result of other supportive measures and the results are inconclusive as the disease is impacted by various coexisting medical conditions. More clinical trials at large scales are needed to tackle this crisis at the earliest. Conclusion: Inventing a new vaccine or drug against coronavirus may take

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years to fully develop. However, clinicians are trying to treat this disease with already prescribed drugs for other diseases like H1N1, malaria, HIV, and SARS. It is important to note that there may be emergence of new clinical characteristics, treatment trials and outcome of COVID-19 as the disease evolves.

Publication Type

  Journal article.

<47>

Accession Number

  20203583682

Author

  Kostolansky, F.; Tomcikova, K.; Briestenska, K.; Mikusova, M.; Vareckova, E.

Title

  Universal anti-influenza vaccines based on viral HA2 and M2e antigens.

Source

  Acta Virologica; 2020. 64(4):417-426. many ref.

Publisher

  AEP - Academic Electronic Press Ltd

Location of Publisher

  Bratislava

Country of Publication

  Slovakia

Abstract

  Aquatic birds are the main reservoir of influenza A viruses (IAVs). These viruses can infect humans repeatedly and cause acute respiratory disease with potential of spread in the form of epidemics. In addition, avian influenza viruses that overcome the interspecies barrier and adapt to humans can cause a world-wide pandemic with severe consequences to human health. Therefore, scientists are focused on the development of a "universal" vaccine with a broad protective efficacy, i.e. against different subtypes of influenza A viruses and not only against the currently co-circulating human epidemic strains. Nowadays, several new vaccine design strategies have been described. Most of them utilize the conserved stem part of influenza surface glycoprotein hemagglutinin (HA) or the ectodomain of M2 (M2e) protein with proton-channel activity. A comparison of the efficacy of novel vaccines and their protective mechanisms against influenza infection is discussed in this review and should be considered for the construction of the most effective broadly protective vaccine with minimal side effects. This is the essential goal in influenza virus research today, especially when the infection with new human coronavirus SARS-CoV-2 can interfere with the course of influenza virus infection.

Publication Type

  Journal article.

<48>

Accession Number

  20203583664

Author

  More, G.; Panei, C. J.; Fuentealba, N.; Aspitia, C.; Bravi, M. E.; Origlia, J.; Rambeaud, M.; Tizzano, M.; Rudd Garces, G.; Golijow, C.; Unzaga, J. M.; Pecoraro, M.

Title

  Results from the first bimester of work at the Faculty of Veterinary Sciences-UNLP: COVID-19 diagnostic unit. [Spanish]

Source

  Analecta Veterinaria; 2020. 40(2). 14 ref.

Publisher

  Facultad de Ciencias Veterinarias, Universidad Nacional de la Plata

Location of Publisher

  La Plata

Country of Publication

  Argentina

Abstract

  The COVID-19 pandemic required rapid development and approval of diagnostic methods and kits. Nasal swab samples (n=1114) were derived to Faculty of Veterinary Sciences- UNLP COVID-19 diagnostic unit by the Buenos Aires Province Ministry of Health during June and July 2020, to perform molecular diagnosis of SARS- CoV-2. Samples of RNA were purified in a type II biosafety cabin and analyzed by real time RT-PCR with the GeneFinderTM kit, which amplifies 3 viral target genes (N, E y RdRp). Of the 1110 samples with positive internal control, 458 (41.2%) were positive (26.9% to all target genes, 4.2% to 2 target genes and almost 10% to one gene, mainly N). Percentage of positive samples remained similar throughout the study period, although the sample number was higher in July (781 samples; 315 positive) compared to June (333 samples; 143 positive). Samples from Berisso, Ensenada and La Plata had significantly lower positive rate than those coming from other counties (27.6% versus 60.7%, respectively). Positivity rate was higher in samples from patients with 3 clinical signs (55.6%). It is necessary to conduct inter-laboratory validation studies and standardization of diagnostic methods used in order to obtain reliable and reproducible results.

Publication Type

Journal article.

<49>

Accession Number

20203583372

Author

Watanabe, S.; Kotsuki, S.; Watanuki, A.; Hashimoto, M.; Touge, Y.; Tanaka, T.; Tanoue, M.; Maruya, Y.; Yamada, M.; Hayashi, Y.

Title

WACCA virtual laboratory, a research society of hydrology and water resources towards post COVID-19. [Japanese]

Source

Journal of Japan Society of Hydrology and Water Resources; 2020. 33(6):274-278.

Publisher

Japan Society of Hydrology and Water Resources

Location of Publisher

Shinjuku-ku

Country of Publication

Japan

Publication Type

Journal article.

<50>

Accession Number

20203583235

Author

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Leone, L. A.; Fleischhacker, S.; Anderson-Steeves, B.; Harper, K.; Winkler, M.; Racine, E.; Baquero, B.; Gittelsohn, J.

Title

Healthy food retail during the COVID-19 pandemic: challenges and future directions.

Source

International Journal of Environmental Research and Public Health; 2020. 17(20). 85 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Disparities in dietary behaviors have been directly linked to the food environment, including access to retail food outlets. The Coronavirus Disease of 2019 (COVID-19) pandemic has led to major changes in the distribution, sale, purchase, preparation, and consumption of food in the United States (US). This paper reflects on those changes and provides recommendations for research to understand the impact of the pandemic on the retail food environment (RFE) and consumer behavior. Using the Retail Food Environment and Customer Interaction Model, we describe the impact of COVID-19 in four key areas: (1) community, state, tribal, and federal policy; (2) retail actors, business models, and sources; (3) customer experiences; and (4) dietary intake. We discuss how previously existing vulnerabilities and inequalities based on race, ethnicity, class, and geographic location were worsened by the pandemic. We recommend approaches for building a more just and equitable RFE, including understanding the impacts of changing shopping behaviors and adaptations to federal nutrition assistance as well as how small food business can be made more sustainable. By better understanding the RFE adaptations that have characterized the COVID-19 pandemic, we hope to gain greater insight into how our food system can become more resilient in the future.

Publication Type

Journal article.

<51>

Accession Number

20203583219

Author

Bogdanova, E.; Andronov, S.; Morell, I. A.; Hossain, K.; Raheem, D.; Filant, P.; Lobanov, A.

Title

 Food sovereignty of the indigenous peoples in the Arctic zone of Western Siberia: response to COVID-19 pandemic.

Source

 International Journal of Environmental Research and Public Health; 2020. 17(20). 56 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

Abstract

 This article presents the challenges facing reindeer herding as being both a profitable business and part of the traditional culture of the nomadic Indigenous peoples in the Arctic zone of Western Siberia which addresses substantial needs of the local population. Reindeer herding products are used as traditional nutrition, and as effective preventive means and remedies for adapting to the cold and geomagnetic activity in the High North. Export trends of traditional reindeer products have decreased local Indigenous peoples' access to venison and had a negative impact on their health. Due to the COVID-19 pandemic, it is especially urgent for the Indigenous peoples to have sufficient access to traditional food and be involved in policy decision-making to maintain this traditional business. We aim to analyze the dependencies of Indigenous peoples on the reindeer produce-exporting "food value chain" and explore how (1) the independence of reindeer herders could be increased in these export chains and (2) how provision of their products to local communities could be secured. The study takes a multidisciplinary approach based on policy and socioeconomic analyses with input from medical research. Primary sources include data collected from interviews and surveys of Indigenous peoples during expeditions to the Nyda settlement, the Nydinskaya tundra, the Tazovsky settlement, the Tazovskaya tundra, the Nakhodka tundra, the Gyda and Gydansky settlements, the Yavai-Salinskaya tundra, the Seyakha settlement, the Seyakhinskaya and Tambeyskaya tundras located along the southern coast of the Ob Bay, the northeast coast of the Yamal Peninsula, the Tazovsky and Gydansky Peninsulas, and the Shuryshkarsky district. Data were collected during the summers and winters of 2014-2020.

Publication Type

 Journal article.

<52>

Accession Number

 20203583183

Author

Alduraywish, A. A.; Srivastava, K. C.; Deepti Shrivastava; Sghaireen, M. G.; Alsharari, A. F.; Al-Johani, K.; Alam, M. K.

Title

A countrywide survey in Saudi Arabia regarding the knowledge and attitude of health care professionals about coronavirus disease (COVID-19).

Source

Publisher

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Coronavirus disease (COVID-19) has emerged as a pandemic. The updated knowledge and a positive attitude of health care professionals (HCPs) towards fighting any pandemic is the key to success. Thus, the present study aims to assess the knowledge and attitude of HCPs towards COVID-19 in the Kingdom of Saudi Arabia (KSA). A cross-sectional study was conducted across the KSA, covering its five geographical regions with a non-probability quota sample. Twenty-nine, close-ended questions evaluating the knowledge and attitude domain were included in the questionnaire. It was developed with the help of Qualtrics software and circulated among the HCPs through the electronic mode. We analyzed data from about 1040 HCPs using the statistical package of social sciences (SPSS) v.21. All variables were presented in number and percentages. Univariate and multivariate logistic regression was performed to explore the odds ratio (OR) and adjusted odds ratio (aOR) of independent variables for inadequate knowledge and attitude. Considering the "good" level of the respective domain, the HCPs have displayed better knowledge (48.2%) over attitude (33.8%). Female (aOR: 1.55; 95% CI: 1.15-2.09; p = 0.004), Diploma degree (aOR: 2.51; 95% CI: 1.64-3.83; p < 0.001), 7-10 years' experience (aOR: 1.47; 95% CI: 1.01-2.15; p = 0.045) were at higher risk of having inadequate knowledge compared to their contemporaries. Among the sources, the Ministry of Health (MOH) website was the most popular source of information (76%). The knowledge and attitude of HCPs regarding COVID-19 was similar across all the regions of KSA. However, the continuing education program is warranted to fill the potential gap in knowledge for HCPs in higher-risk groups.

Publication Type

Journal article.

<53>

Accession Number

  20203583181

Author

  Irigoyen-Camacho, M. E.; Velazquez-Alva, M. C.; Zepeda-Zepeda, M. A.; Cabrer-Rosales, M. F.; Lazarevich, I.; Castano-Seiquer, A.

Title

  Effect of income level and perception of susceptibility and severity of COVID-19 on stay-at-home preventive behavior in a group of older adults in Mexico City.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(20). 61 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Early information on public health behaviors adopted to prevent the spread of coronavirus (COVID-19) may be useful in controlling the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) transmission. The objective of this study was to assess the role of income level (IL) and the perception of older adults, regarding COVID-19 susceptibility and severity, on adopting stay-at-home preventive behavior during the first week of the outbreak in Mexico. Participants in this cross-sectional study were urban community dwellers, aged 65 years from Mexico City. A total of 380 interviews were conducted over the phone. The mean respondent age was 72.9 years, and 76.1% were women. Over half (54.2%) of the participants perceived their susceptibility to COVID-19 as very low or low. Similarly, 33.4% perceived COVID-19 severity as being very low or low, and 57.6% had decided to stay at home: this behavior was associated with IL (beta = 1.05, p < 0.001), and its total effect was partially mediated (15.1%) by perceived severity. Educational attainment was also associated with staying at home (beta = 0.10, p = 0.018) and its total effect was partially mediated (15.0%) by perceived susceptibility. Interventions aimed at low income and less educated older adults should be developed to improve preventive behaviors in this vulnerable group during the COVID-19 pandemic.

Publication Type

  Journal article.

<54>

Accession Number

20203583135

Author

Lee, S. M.; Lee DonHee

Title

Lessons learned from battling COVID-19: the Korean experience.

Source

International Journal of Environmental Research and Public Health; 2020. 17(20). 68 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Background: The COVID-19 pandemic has swept the world like a gigantic tsunami, turning social and economic activities upside down. Methods: This paper presents some of the innovative response strategies implemented by the public health system, healthcare facilities, and government in South Korea, which has been hailed as the model country for its success in containing COVID-19. Korea reinvented its public health infrastructure with a sense of urgency. Results: Korea's success rests on its readiness, with the capacity for massive testing and obtaining prompt test results, effective contact tracing based on its world-leading mobile technologies, timely provision of personal protective equipment (PPE) to first responders, effective treatment of infected patients, and invoking citizens' community and civic conscience for the shared goal of defeating the pandemic. The lessons learned from Korea's response in countering the onslaught of COVID-19 provide unique implications for public healthcare administrators and operations management practitioners. Conclusion: Since many epidemic experts warn of a second wave of COVID-19, the lessons learned from the first wave will be a valuable resource for responding to the resurgence of the virus.

Publication Type

Journal article.

<55>

Accession Number

20203583119

Author

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Delgado-Gallegos, J. L.; Montemayor-Garza, R. de J.; Padilla-Rivas, G. R.; Franco-Villareal, H.; Francisco Islas, J.

Title

Prevalence of stress in healthcare professionals during the COVID-19 pandemic in northeast Mexico: a remote, fast survey evaluation, using an adapted COVID-19 stress scales.

Source

International Journal of Environmental Research and Public Health; 2020. 17(20). 45 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The world is currently subjected to the worst health crisis documented in modern history: an epidemic led by the novel coronavirus disease 2019 (COVID-19). At the epicenter of this crisis, healthcare professionals continue working to safeguard our well-being. To the regular high levels of stress, COVID-19 adds even more so to healthcare professionals in particular, depending on their area, specialty, and type of work. Here we investigated what are the tendencies or areas most affected. Through an adaptation of the original COVID-stress scales, we developed a remote, fast test designed for healthcare professionals in the northeastern part of Mexico, an important part of the country with economic and cultural ties to the United States. Our results showed four key correlations as highly dependent: work area-xenophobia ($p < 0.045$), work with COVID patients-traumatic stress ($p < 0.001$), total number of COVID patients per day-traumatic stress ($p < 0.027$), and total number of COVID patients-compulsive checking and reassurance. Overall, we concluded that normal levels of stress have increased (mild-moderate). Additionally, we determine that the fear of being an asymptomatic patient (potential to spread without knowing) continues being a concern.

Publication Type

Journal article.

<56>

Accession Number

20203583106

Author

Zhang XinXin; Zhu WenFei; Kang SiFan; Qiu LongKun; Lu ZiJun; Sun YuLiang

Title

  Association between physical activity and mood states of children and adolescents in social isolation during the COVID-19 epidemic.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(20). 72 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The COVID-19 epidemic adversely affects the lifestyle of people. This study aimed to examine the impacts of social isolation on physical activity (PA) levels and mood states of children and adolescents and to explore the correlation between them during the COVID-19 epidemic. A total of 9979 children and adolescents (11.63 +or- 1.23 years old) from Yan'an, China volunteered to participate in this study and completed online questionnaires. PA and mood states were measured by International Physical Activity Questionnaire Short Form (IPAQ-SF) and Profile of Mood States (POMS), respectively. The results showed that the mean of students' moderate-to-vigorous PA (MVPA) was 23.19 min per day. The total mood disturbance in the moderate and high-level PA groups were significantly lower than those in the low-level PA group ($p < 0.05$). Additionally, boys and girls had significant differences in PA levels ($p < 0.01$), and the PA levels of students in different grades were also significantly different ($p < 0.01$). Meanwhile, boys' mood states were worse than girls'. The Grade 4 in primary schools had the worst mood states while Grade 5 had the best mood states. The results suggested that the MVPA of students has dropped badly, compared with the results of previous studies investigated in normal times. In addition, the PA level had a significantly positive impact on the mood states of children and adolescents during the COVID-19 epidemic. Sex and grades were factors which affected the PA levels and mood states. This study can help policymakers and healthcare professionals understand PA and mood states of Chinese children and adolescents during the epidemic. We should pay attention to the changes in PA levels and mood states of children and adolescents.

Publication Type

  Journal article.

<57>

Accession Number

  20203583099

Author

Gu JunJian

Title

Risk assessment on continued public health threats: evidence from China's stock market.

Source

International Journal of Environmental Research and Public Health; 2020. 17(20). 66 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Given the disturbing effects of the coronavirus disease 2019 (COVID-19) outbreak, we are motivated to examine whether the continued increase of the provincial public health threats affects the firms' accumulative abnormal return. Using the 178,805 firm-day observations from Chinese listed firms from 10 January to 31 March 2020, we find that the accumulative abnormal return is significantly lower among firms located in the provinces where face the continued increase of new confirmed COVID-19 cases. The relations remain constant after several robustness tests. These findings suggest that investors concern about the potential risk when firms are located in the provinces with higher threats to public health. We also find that the negative effect of increasing public health threats on abnormal return is weaker for firms surrounded by a provincial environment with stronger information accessibility and economic growth. Overall, this study extends the literature by presenting systematic evidence on the effect of the continued increase of provincial public health threats on the market reaction in Chinese listed firms.

Publication Type

Journal article.

<58>

Accession Number

20203583050

Author

Tita, O.; Constantinescu, M. A.; Tita, M. A.; Georgescu, C.

Title

Use of yoghurt enhanced with volatile plant oils encapsulated in sodium alginate to increase the human body's immunity in the present fight against stress.

Source

International Journal of Environmental Research and Public Health; 2020. 17(20). 65 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

(1) Background: The COVID-19 pandemic and the imposition of strict but necessary measures to prevent the spread of the new coronavirus have been, and still are, major stress factors for adults, children, and adolescents. Stress harms human health as it creates free radicals in the human body. According to various recent studies, volatile oils from various aromatic plants have a high content of antioxidants and antimicrobial compounds. An external supply of antioxidants is required to destroy these free radicals. The main purpose of this paper is to create a yoghurt with high antioxidant capacity, using only raw materials from Romania; (2) Methods: The bioactive components used to enrich the cow milk yoghurt were extracted as volatile oils out of four aromatic plants: basil, mint, lavender and fennel. Initially, the compounds were extracted to determine the antioxidant capacity, and subsequently, the antioxidant activity of the yoghurt was determined. The 2,2-diphenyl-1-picrylhy-drazyl (DPPH) method was used to determine the antioxidant activity; (3) Results: The results show that cow milk yoghurt enhanced with volatile oils of basil, lavender, mint and fennel, encapsulated in sodium alginate has an antioxidant and antimicrobial effect as a staple food with multiple effects in increasing the body's immunity. The antioxidant activity proved to be considerably higher than the control sample. The highest antioxidant activity was obtained on the first day of the analysis, decreasing onwards to measurements taken on days 10 and 20. The cow milk yoghurt enriched with volatile basil oil obtained the best results; (4) Conclusions: The paper shows that yoghurts with a high antioxidant capacity were obtained, using only raw materials from Romania. A healthy diet, compliance with safety conditions and finding appropriate and safe methods to increase the body's immunity is a good alternative to a major transition through harder times, such as pandemics. The creation of food products that include natural antioxidant compounds combines both the current great possibility of developing food production in Romania and the prevention and reduction of the effects caused by pandemic stress in the human body.

Publication Type

Journal article.

<59>

Accession Number

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20203582925

Author

Wang ShunDac; Dai MengHua

Title

Status and situation of postgraduate medical students in China under the influence of COVID-19.

Source

Postgraduate Medical Journal; 2020. 96(1142):728-730. 6 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

At the beginning of 2020, the outbreak of COVID-19 in China has brought great impact on the society, economy and life. This article introduces current status of Chinese postgraduate medical students under this epidemic situation in combination with the author's own experience from four aspects: professional spirit, professional knowledge, learning status and protective measures.

Publication Type

Journal article.

<60>

Accession Number

20203582893

Author

Han, E.; Tan, M. M. J.; Turk, E.; Sridhar, D.; Leung, G. M.; Shibuya, K.; Asgari, N.; Oh, J.; Garcia-Basteiro, A. L.; Hanefeld, J.; Cook, A. R.; Hsu LiYang; Teo YikYing; Heymann, D.; Clark, H.; McKee, M.; Legido-Quigley, H.

Title

Lessons learnt from easing COVID-19 restrictions: an analysis of countries and regions in Asia Pacific and Europe.

Source

Lancet (British edition); 2020. 396(10261):1525-1534. 55 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The COVID-19 pandemic is an unprecedented global crisis. Many countries have implemented restrictions on population movement to slow the spread of severe acute respiratory syndrome coronavirus 2 and prevent health systems from becoming overwhelmed; some have instituted full or partial lockdowns. However, lockdowns and other extreme restrictions cannot be sustained for the long term in the hope that there will be an effective vaccine or treatment for COVID-19. Governments worldwide now face the common challenge of easing lockdowns and restrictions while balancing various health, social, and economic concerns. To facilitate cross-country learning, this Health Policy paper uses an adapted framework to examine the approaches taken by nine high-income countries and regions that have started to ease COVID-19 restrictions: five in the Asia Pacific region (ie, Hong Kong [Special Administrative Region], Japan, New Zealand, Singapore, and South Korea) and four in Europe (ie, Germany, Norway, Spain, and the UK). This comparative analysis presents important lessons to be learnt from the experiences of these countries and regions. Although the future of the virus is unknown at present, countries should continue to share their experiences, shield populations who are at risk, and suppress transmission to save lives.

Publication Type

Journal article.

<61>

Accession Number

20203582846

Author

Tulleken, C. van; Wright, C.; Brown, A.; McCoy, D.; Costello, A.

Title

Marketing of breastmilk substitutes during the COVID-19 pandemic.

Source

Lancet (British edition); 2020. 396(10259):e58-e58. 9 ref.

Publisher

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Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<62>

Accession Number

20203582806

Author

Webb, C. E.

Title

Reflections on a highly unusual summer: bushfires, COVID-19 and mosquito-borne disease in NSW, Australia. (Special Issue: Extreme events: how do public health systems learn and adapt?)

Source

Public Health Research & Practice; 2020. 30(4). 19 ref.

Publisher

Sax Institute

Location of Publisher

Ultimo

Country of Publication

Australia

Abstract

Mosquitoes and mosquito-borne disease are a normal part of the Australian summer but the 2019-2020 summer was anything but normal. Above average temperatures and below average rainfall resulted in drought across many parts of New South Wales (NSW), Australia, which then contributed to catastrophic bushfires. However, by late summer, above average rainfall resulted in a dramatic increase in mosquito abundance. While the coronavirus disease 2019 (COVID-19) pandemic unfolded, NSW experienced increased activity of mosquito-borne Ross River virus. All these extreme events created many challenges for managing the pest and the public health risks associated with mosquitoes, from maintenance of mosquito monitoring and control programs through to unique challenges of communicating mosquito bite

prevention advice to local communities. There are important lessons to be learned in situations where extreme weather events may influence the risk of mosquito-borne disease through driving changes in the abundance and diversity of mosquito populations, while also influencing the abundance and distribution of native wildlife that represents important local reservoirs of arboviruses. Similarly, supporting the maintenance of mosquito monitoring and management programs while local authorities face competing priorities due to extreme natural disasters and/or public health events is critical.

Publication Type

  Journal article.

<63>

Accession Number

  20203582803

Author

  Bagheri, M.; Haghollahi, F.; Shariat, M.; Jafarabadi, M.; Aryamloo, P.; Rezayof, E.

Title

  Supplement usage pattern in a group of COVID- 19 patients in Tehran.

Source

  Journal of Family and Reproductive Health; 2020. 14(3):158-165. 26 ref.

Publisher

  Tehran University of Medical Sciences, Centre for Electronic Resources Provision and Journal Improvement

Location of Publisher

  Tehran

Country of Publication

  Iran

Abstract

  Objective: The coronavirus disease 19 (COVID-19) is a highly transmittable and pathogenic viral infection, causes severe acute respiratory syndrome and was spread throughout the world in early 2020. The effects of vitamin and micronutrient supplements on the prevention and treatment of COVID- 19 seems challenging in scientific considerations. On the other side generally, experts warn against over-consumption of these supplements. Materials and methods: This study aimed to investigate the vitamin and micronutrient supplementation usage pattern in past history of patients with COVID-19 via a cross-sectional inquiry. Totally 510 patients referring to the infectious disease clinic of Imam Khomeini Hospital in Tehran from March 2020 to May 2020 were recruited. The inclusion criterion was suspected patients for COVID-19 based on clinical findings and CT scans of the lung. The infected patients included both inpatients (171) and outpatients (339). Demographic information, clinical signs, and the supplement pattern use were collected

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through a questionnaire and the data were statistically analyzed. Results: Vitamin D3 intake was reported in 30% (103 patients) of outpatients and 16.5% (28 patients) of hospitalized patients, which is statistically significant (P=0.001). It shows that, the frequency of vitamin D3 consumption in the outpatient group was higher than inpatient group. This significant difference has also been shown in zinc consumption, in 29 patients (9%) outpatients versus 4 patients (2%) inpatients were reported (P=0.007). Multi nominal regression showed that vitamin D3 intake has a supportive effect and reduces the risk of exacerbation and worsening of the disease. (OR=0.291; 95% CI 0.102-.0834, P=0.022). Conclusion: According to the results of the present study and the findings of other studies, considering the supportive effect of vitamin D3 in reducing the severity of infectious diseases; Clinical trials with an appropriate sample size are recommended to investigate the functional role of this vitamin in improving viral diseases of the respiratory tract.

Publication Type

  Journal article.

<64>

Accession Number

  20203582585

Author

  Stojkovic-Filipovic, J.; Bosic, M.

Title

  Treatment of COVID 19 - repurposing drugs commonly used in dermatology. (COVID-19 special issue.)

Source

  Dermatologic Therapy; 2020. 33(5). 87 ref.

Publisher

  Wiley

Location of Publisher

  Boston

Country of Publication

  USA

Abstract

  For the last two decades, the outbreaks of diseases caused by coronaviruses and intermittent worldwide public health emergences have reminded us that they still represent a severe threat to global health. The recent outbreak of corona virus disease 19 (COVID-19) highlighted the urgent need for effective treatment, and initiated rapid search for therapies, able to counter the most severe disease effects. Many aspects of COVID-19 pathogenesis are unknown, but complex interplay of direct viral damage and immune response

dysregulation is underline. Intensive research is undergoing for therapeutic targets of virus and high-efficiency and low toxicity targeted drugs. There is no available specific antiviral treatment of this disease, therefore repurposing of drugs already available for the treatment of other viral and autoimmune diseases has been a part of research efforts. Well known anti-inflammatory properties of chloroquine and hydroxychloroquine, agents widely used in dermatology, made them potential candidates for the treatment of COVID-19. We review pathogenesis and clinical characteristic of COVID-19, as well as treatment options that have been under evaluation in past several months. In addition, we focus more on chloroquine and hydroxychloroquine, their pharmacological properties, clinical utility, and current recommendations for their use in COVID-19.

Publication Type

  Journal article.

<65>

Accession Number

  20203582579

Author

  Karadag, A. S.; Kayiran, M. A.; Lotti, T.; Wollina, U.

Title

  Immunosuppressive and immunomodulator therapy for rare or uncommon skin disorders in pandemic days. (COVID-19 special issue.)

Source

  Dermatologic Therapy; 2020. 33(5). 116 ref.

Publisher

  Wiley

Location of Publisher

  Boston

Country of Publication

  USA

Abstract

  Immunosuppressive and immunomodulatory therapies are important in dermatology, but indications are influenced by SARS-CoV-2. We will focus on skin disorders such as autoimmune connective tissue disorders, neutrophilic dermatoses, and vasculitis. Immunomodulators such as colchicine and antimalarials can easily be preferred taking their beneficial effects on COVID-19 into consideration and also given their wide spectrum of action. Among the conventional therapies, methotrexate, azathioprine, and mycophenolate mofetil increase the risk of infection, and thus their use is recommended only when necessary and at low

doses. On the other hand, use of cyclosporine is also not recommended as it increases the risk of hypertension, which is susceptible to COVID-19. Anti-TNF agents from among the biological therapies appear to be slightly risky in terms of susceptibility to infection. However, there are ongoing studies which suggest that some biological treatments may reduce cytokine storm impeding the COVID-19 progression as a result, in spite of their susceptibilities to COVID-19. Patients, who will be started on immunosuppressive therapy, should be tested for COVID-19 prior to the therapy, and in the event that COVID-19 is suspected, the therapy should be discontinued.

Publication Type

Journal article.

<66>

Accession Number

20203582578

Author

Temiz, S. A.; Dursun, R.; Daye, M.; Ataseven, A.

Title

Evaluation of dermatology consultations in the era of COVID-19. (COVID-19 special issue.)

Source

Dermatologic Therapy; 2020. 33(5). 14 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

Abstract

It has been reported that dermatology practices may be a vector for SARS-CoV-2 transmission and elective cases should be postponed during the pandemic period. In this context, studies on the change of patient profile in Dermatology outpatient clinic have been conducted. However, there was no study in the literature about dermatology consultations during the pandemic period. One hundred and forty-seven dermatology consultation cases in the era of COVID-19 pandemic between March 11, 2020 and May 4, 2020 were retrospectively evaluated. Twenty-four patients (16.3%) had suspicion and signs of COVID during consultation (fever, cough, shortness of breath, etc.). Nine (37.5%) of these patients also had accompanying COVID-19 skin lesions (two urticarial lesions, two livedo and necrosis, two maculopapular eruption, two vesicular rashes, one pseudo-chilblain). The number of cases that were suspected to have COVID-19 was

statistically significantly higher in consultations requested by the emergency department and intensive care unit, while there were no suspected cases in outpatient clinic consultations (P=.001). Two (1.4%) of these patients were diagnosed with COVID-19 confirmed by PCR within 2 weeks. We acknowledge that daily practice changes frequently during this period, but still our study provides a perspective to other dermatology clinics in terms of the requested dermatology consultations during the pandemic.

Publication Type

  Journal article.

<67>

Accession Number

  20203582446

Author

  Soy, M.; Keser, G.; Atagunduz, P.; Tabak, F.; Atagunduz, I.; Kayhan, S.

Title

  Cytokine storm in COVID-19: pathogenesis and overview of anti-inflammatory agents used in treatment.

Source

  Clinical Rheumatology; 2020. 39(7):2085-2094. 69 ref.

Publisher

  Springer-Verlag

Location of Publisher

  Godalming

Country of Publication

  UK

Abstract

  COVID-19 infection has a heterogenous disease course; it may be asymptomatic or causes only mild symptoms in the majority of the cases, while immunologic complications such as macrophage activation syndrome also known as secondary hemophagocytic lymphohistiocytosis, resulting in cytokine storm syndrome and acute respiratory distress syndrome, may also occur in some patients. According to current literature, impairment of SARS-CoV-2 clearance due to genetic and viral features, lower levels of interferons, increased neutrophil extracellular traps, and increased pyroptosis and probable other unknown mechanisms create a background for severe disease course complicated by macrophage activation syndrome and cytokine storm. Various genetic mutations may also constitute a risk factor for severe disease course and occurrence of cytokine storm in COVID-19. Once, immunologic complications like cytokine storm occur, anti-viral treatment alone is not enough and should be combined with appropriate anti-inflammatory treatment. Anti-rheumatic drugs, which are tried for managing immunologic

complications of COVID-19 infection, will also be discussed including chloroquine, hydroxychloroquine, JAK inhibitors, IL-6 inhibitors, IL-1 inhibitors, anti-TNF-a agents, corticosteroids, intravenous immunoglobulin (IVIG), and colchicine. Early recognition and appropriate treatment of immunologic complications will decrease the morbidity and mortality in COVID-19 infection, which requires the collaboration of infectious disease, lung, and intensive care unit specialists with other experts such as immunologists, rheumatologists, and hematologists.

Publication Type

  Journal article.

<68>

Accession Number

  20203582445

Author

  Galluccio, F.; Ergonenc, T.; Martos, A. G.; Allam, A. E. S.; Perez-Herrero, M.; Aguilar, R.; Emmi, G.; Spinicci, M.; Juan, I. T.; Fajardo-Perez, M.

Title

  Treatment algorithm for COVID-19: a multidisciplinary point of view.

Source

  Clinical Rheumatology; 2020. 39(7):2077-2084. 58 ref.

Publisher

  Springer-Verlag

Location of Publisher

  Godalming

Country of Publication

  UK

Abstract

  The novel coronavirus (Sars-CoV-2) pandemic has spread rapidly, from December to the end of March, to 185 countries, and there have been over 3,000,000 cases identified and over 200,000 deaths. For a proportion of hospitalized patients, death can occur within a few days, mainly for adult respiratory distress syndrome or multi-organ dysfunction syndrome. In these patients, clinical signs and symptoms, as well as laboratory abnormalities, suggest a cytokine storm syndrome in response to the viral infection. No current targeted treatment is yet available for COVID-19, an unknown disease up to 2 months ago, which challenges doctors and researchers to find new drugs or reallocate other treatments for these patients. Since the beginning of the COVID-19 outbreak, a growing body of information on diagnostic and therapeutic strategies has emerged, mainly based on preliminary experience on retrospective studies or

small case series. Antivirals, antimalarials, corticosteroids, biotechnological and small molecules, convalescent plasma and anticoagulants are among the drugs proposed for the treatment or in tested for COVID-19. Given the complexity of this new condition, a multidisciplinary management seems to be the best approach. Sharing and integrating knowledge between specialists, to evaluate the correct timing and setting of every treatment, could greatly benefit our patients. We reviewed the literature, combining it with our experiences and our specialist knowledge, to propose a management algorithm, correlating the clinical features with laboratory and imaging findings to establish the right timing for each treatment.

Publication Type

  Journal article.

<69>

Accession Number

  20203582419

Author

  Alahmad, B.; Al-Shammari, A. A.; Bennakhi, A.; Al-Mulla, F.; Ali, H.

Title

  Fasting blood glucose and COVID-19 severity: nonlinearity matters.

Source

  Diabetes Care; 2020. 43(12):3113-3116. 12 ref.

Publisher

  The American Diabetes Association

Location of Publisher

  Washington

Country of Publication

  USA

Abstract

  OBJECTIVE: Fasting blood glucose (FBG) could be an independent predictor for coronavirus disease 2019 (COVID-19) morbidity and mortality. However, when included as a predictor in a model, it is conventionally modeled linearly, dichotomously, or categorically. We comprehensively examined different ways of modeling FBG to assess the risk of being admitted to the intensive care unit (ICU). RESEARCH DESIGN AND METHODS: Utilizing COVID-19 data from Kuwait, we fitted conventional approaches to modeling FBG as well as a nonlinear estimation using penalized splines. RESULTS: For 417 patients, the conventional linear, dichotomous, and categorical approaches to modeling FBG missed key trends in the exposure-response relationship. A nonlinear estimation showed a steep slope until about 10 mmol/L before flattening. CONCLUSIONS: Our results argue for strict glucose management on admission. Even a small incremental

increase within the normal range of FBG was associated with a substantial increase in risk of ICU admission for COVID-19 patients.

Publication Type

Journal article.

<70>

Accession Number

20203582400

Author

Camargo, S. M. R.; Vuille-dit-Bille, R. N.; Meier, C. F.; Verrey, F.

Title

ACE2 and gut amino acid transport.

Source

Clinical Science; 2020. 134(21):2823-2833.

Publisher

Portland Press Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

ACE2 is a type I membrane protein with extracellular carboxypeptidase activity displaying a broad tissue distribution with highest expression levels at the brush border membrane (BBM) of small intestine enterocytes and a lower expression in stomach and colon. In small intestinal mucosa, ACE2 mRNA expression appears to increase with age and to display higher levels in patients taking ACE-inhibitors (ACE-I). There, ACE2 protein heterodimerizes with the neutral amino acid transporter Broad neutral Amino acid Transporter 1 (B0AT1) (SLC6A19) or the imino acid transporter Sodium-dependent Imino Transporter 1 (SIT1) (SLC6A20), associations that are required for the surface expression of these transport proteins. These heterodimers can form quaternary structures able to function as binding sites for SARS-CoV-2 spike glycoproteins. The heterodimerization of the carboxypeptidase ACE2 with B0AT1 is suggested to favor the direct supply of substrate amino acids to the transporter, but whether this association impacts the ability of ACE2 to mediate viral infection is not known. B0AT1 mutations cause Hartnup disorder, a condition characterized by neutral aminoaciduria and, in some cases, pellagra-like symptoms, such as photosensitive rash, diarrhea, and cerebellar ataxia. Correspondingly, the lack of ACE2 and the concurrent absence of B0AT1 expression in small intestine causes a decrease in L-tryptophan absorption, niacin deficiency,

decreased intestinal antimicrobial peptide production, and increased susceptibility to inflammatory bowel disease (IBD) in mice. Thus, the abundant expression of ACE2 in small intestine and its association with amino acid transporters appears to play a crucial role for the digestion of peptides and the absorption of amino acids and, thereby, for the maintenance of structural and functional gut integrity.

Publication Type

  Journal article.

<71>

Accession Number

  20203582344

Author

  Xiao JianWei; Li Xiang; Xie YuanLiang; Huang ZengFa; Ding Yi; Zhao ShengChao; Yang Pei; Du Dan; Liu Bin; Wang Xiang

Title

  Maximum chest CT score is associated with progression to severe illness in patients with COVID-19: a retrospective study from Wuhan, China.

Source

  BMC Infectious Diseases; 2020. 20(953). 24 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: The Coronavirus Disease 2019 (COVID-19) pandemic is a world-wide health crisis. Limited information is available regarding which patients will experience more severe disease symptoms. We evaluated hospitalized patients who were initially diagnosed with moderate COVID-19 for clinical parameters and radiological feature that showed an association with progression to severe/critical symptoms. Methods: This study, a retrospective single-center study at the Central Hospital of Wuhan, enrolled 243 patients with confirmed COVID19 pneumonia. Forty of these patients progressed from moderate to severe/critical symptoms during follow up. Demographic, clinical, laboratory, and radiological data were extracted from electronic medical records and compared between moderate- and severe/critical-type symptoms. Univariable and multivariable logistic regressions were used to identify the risk factors associated with symptom progression. Results: Patients with severe/critical symptoms were

older (p < 0.001) and more often male (p = 0.046). A combination of chronic obstructive pulmonary disease (COPD) and high maximum chest computed tomography (CT) score was associated with disease progression. Maximum CT score (> 11) had the greatest predictive value for disease progression. The area under the receiver operating characteristic curve was 0.861 (95% confidence interval: 0.811-0.902). Conclusions: Maximum CT score and COPD were associated with patient deterioration. Maximum CT score (> 11) was associated with severe illness.

Publication Type

Journal article.

<72>

Accession Number

20203582303

Author

Marin Gabriel, M. A.; Cuadrado, I.; Alvarez Fernandez, B.; Gonzalez Carrasco, E.; Alonso Diaz, C.; Llana Martin, I.; Sanchez, L.; Olivas, C.; Heras, S. de las; Criado, E.

Title

Multicentre Spanish study found no incidences of viral transmission in infants born to mothers with COVID-19.

Source

Acta Paediatrica; 2020. 109(11):2302-2308. 30 ref.

Publisher

Wiley

Location of Publisher

Copenhagen

Country of Publication

Denmark

Abstract

Aim: Our aim was to describe the clinical features of mothers infected with COVID-19 and examine any potential vertical mother to newborn transmission. We also assessed how effective the discharge recommendations were in preventing transmission during the first month of life. Methods: This multicentre descriptive study involved 16 Spanish hospitals. We reviewed the medical records of 42 pregnant women diagnosed with COVID-19 from March 13, 2020, to March 29, 2020, when they were in their third trimester of pregnancy. They and their newborn infants were monitored until the infant was 1 month old. Results: Over half (52.4%) of the women had a vaginal delivery. The initial clinical symptoms were coughing (66.6%) and fever (59.5%), and one mother died due to thrombo-embolic events. We admitted 37 newborn infants

to the neonatal unit (88%), and 28 were then admitted to intermediate care for organisational virus-related reasons. No infants died, and no vertical transmission was detected during hospitalisation or follow-up. Only six were exclusively breastfed at discharge. Conclusion: There was no evidence of COVID-19 transmission in any of the infants born to COVID-19 mothers, and the post-discharge advice seemed effective. The measures to avoid transmission appeared to reduce exclusive breastfeeding at discharge.

Publication Type

  Journal article.

<73>

Accession Number

  20203582276

Author

  Buonafine, C. P.; Paiatto, B. N. M.; Leal, F. B.; Matos, S. F. de; Morais, C. O. de; Guerra, G. G.; Martuchelli, M. V. V.; Oliveira, D. B. L.; Durigon, E. L.; Soares, C. P.; Candido, E. D.; Telezynski, B. L.; Safadi, M. A. P.; Almeida, F. J.

Title

  High prevalence of SARS-CoV-2 infection among symptomatic healthcare workers in a large university tertiary hospital in Sao Paulo, Brazil.

Source

  BMC Infectious Diseases; 2020. 20(917). 24 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: Brazil became the epicenter of the COVID-19 pandemic in Latin America since May 2020, reporting the highest number of cases and deaths in the region. Healthcare workers (HCWs) are at increased risk of SARS-CoV-2 infection, experiencing a significant burden from COVID-19. Identifying and understanding the clinical characteristics and risk factors associated with infection are of paramount importance to inform screening strategies and infection control practices in this scenario. The aims of this study were to investigate the prevalence and clinical characteristics of HCWs with COVID-19 symptoms. Methods: Between March 21st and May 22nd, 2020 a cross-sectional study was performed in a tertiary university hospital in Sao Paulo. Prevalence of SARS-CoV-2 infection among HCWs with COVID-19

symptoms was determined by RT-PCR testing on nasopharyngeal and oropharyngeal samples. Participants were asked to complete an electronic structured questionnaire including clinical and demographic data. Results: Overall, 125 (42.37%) of 295 symptomatic HCWs tested positive for SARS-CoV-2. Over the 10-week study period, positivity rates varied from 22.2% (95% CI 15.9-60.3%) in the second week to 55.9% (95% CI 43.2-68.6%) in the sixth week, reaching a plateau (38-46%) thereafter. Median (SD) age was 34.2 (9.9) years and 205 (69.5%) were female. We did not find significant differences in the prevalence of the most commonly reported underlying medical condition among healthcare workers that tested positive or negative for SARS-CoV-2 infection. After multivariable analysis, using logistic regression, anosmia (adjusted OR 4.4 95% CI 2.21-8.74) and ocular pain (adjusted OR 1.95 95% CI 1.14-3.33) were the only symptoms independently associated with positivity for SARS-CoV-2 infection. Follow-up information on clinical outcomes showed that 9 (7.2%) HCWs were hospitalized (seven were male) and 2 (1.6%) died. Conclusions: The findings of this study confirmed the high burden of SARS-CoV-2 infection among healthcare workers in the hardest hit city by the pandemic in Latin America. Anosmia and ocular pain were symptoms independently associated with COVID-19 diagnosis. In low and middle-income countries, where limited availability of tests is frequent, these findings may contribute to optimize a targeted symptom-oriented screening strategy.

Publication Type

Journal article.

<74>

Accession Number

20203582113

Author

Shi YunJie; Wang Hao

Title

Progress in the diagnosis and treatment of COVID-19 and the role of surgeons in the front line of the pandemic.

Source

Surgery Today; 2020. 50(11):1544-1548. 34 ref.

Publisher

Springer-Japan

Location of Publisher

Tokyo

Country of Publication

Japan

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Abstract

  The current struggle to control and contain COVID-19 is critical and surgeons are on the front line in the fight against this virus. Surgeons, and other medical workers in the field of surgery, have a solid foundation and experience in medical treatment and intensive care, and an understanding of the support of respiratory, circulatory, digestive, and other systemic organs. Furthermore, the operative standards of aseptic technique in their daily work enable surgeons to adapt to the working environment in infected areas. As surgeons in the anti-pandemic front line in China, we describe our experience with the diagnosis and treatment of COVID-19 in this country and how the work of surgeons is unfolding during the pandemic.

Publication Type

  Journal article.

<75>

Accession Number

  20203582012

Author

  Ankit Dhaundiyal; Puja Kumari; Jawalekar, S. S.; Chauhan, G.; Sourav Kalra; Umashanker Navik

Title

  Is highly expressed ACE 2 in pregnant women "a curse" in times of COVID-19 pandemic?

Source

  Life Sciences; 2021. 264. 96 ref.

Publisher

  Elsevier

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  Angiotensin-converting enzyme 2 (ACE 2) is a membrane-bound enzyme that cleaves angiotensin II (Ang II) into angiotensin (1-7). It also serves as an important binding site for SARS-CoV-2, thereby, facilitating viral entry into target host cells. ACE 2 is abundantly present in the intestine, kidney, heart, lungs, and fetal tissues. Fetal ACE 2 is involved in myocardium growth, lungs and brain development. ACE 2 is highly expressed in pregnant women to compensate preeclampsia by modulating angiotensin (1-7) which binds to the Mas receptor, having vasodilator action and maintain fluid homeostasis. There are reports available on Zika, H1N1 and SARS-CoV where these viruses have shown to produce fetal defects but very little is known

about SARS-CoV-2 involvement in pregnancy, but it might have the potential to interact with fetal ACE 2 and enhance COVID-19 transmission to the fetus, leading to fetal morbidity and mortality. This review sheds light on a path of SARS-CoV-2 transmission risk in pregnancy and its possible link with fetal ACE 2.

Publication Type

Journal article.

<76>

Accession Number

20203581998

Author

Berling Ingrid; King, J. D.; Shepherd, G.; Hoffman, R. S.; Alhatali, B.; Lavergne, V.; Roberts, D. M.; Gosselin, S.; Wilson, G.; Nolin, T. D.; Ghannoum, M.

Title

Extracorporeal treatment for chloroquine, hydroxychloroquine, and quinine poisoning: systematic review and recommendations from the extrip workgroup.

Source

Journal of the American Society of Nephrology; 2020. 31(10):2475-2489.

Publisher

American Society of Nephrology

Location of Publisher

Washington DC

Country of Publication

USA

Abstract

Background: Although chloroquine, hydroxychloroquine, and quinine are used for a range of medical conditions, recent research suggested a potential role in treating COVID-19. The resultant increase in prescribing was accompanied by an increase in adverse events, including severe toxicity and death. The Extracorporeal Treatments in Poisoning (EXTRIP) workgroup sought to determine the effect of and indications for extracorporeal treatments in cases of poisoning with these drugs. Methods: We conducted systematic reviews of the literature, screened studies, extracted data, and summarized findings following published EXTRIP methods. Results: A total of 44 studies (three in vitro studies, two animal studies, 28 patient reports or patient series, and 11 pharmacokinetic studies) met inclusion criteria regarding the effect of extracorporeal treatments. Toxicokinetic or pharmacokinetic analysis was available for 61 patients (13 chloroquine, three hydroxychloroquine, and 45 quinine). Clinical data were available for analysis from 38 patients, including 12 with chloroquine toxicity, one with hydroxychloroquine toxicity, and 25 with quinine

toxicity. All three drugs were classified as non-dialyzable (not amenable to clinically significant removal by extracorporeal treatments). The available data do not support using extracorporeal treatments in addition to standard care for patients severely poisoned with either chloroquine or quinine (strong recommendation, very low quality of evidence). Although hydroxychloroquine was assessed as being non-dialyzable, the clinical evidence was not sufficient to support a formal recommendation regarding the use of extracorporeal treatments for this drug. Conclusions: On the basis of our systematic review and analysis, the EXTRIP workgroup recommends against using extracorporeal methods to enhance elimination of these drugs in patients with severe chloroquine or quinine poisoning.

Publication Type

  Journal article.

<77>

Accession Number

  20203581984

Author

  Monterrosa-Castro, A.; Gonzalez-Sequeda, A.; Beltran-Barrios, T.

Title

  Perception of discrimination in a group of Colombian general practitioners during the COVID-19 pandemic and its relation to labor and psychological factors. [Spanish]

Source

  Salud Uninorte; 2020. 36(1):25-45. 36 ref.

Publisher

  Universidad del Norte

Location of Publisher

  Barranquilla

Country of Publication

  Colombia

Abstract

  Objective: To estimate the frequency of perception of discrimination and its association with occupational stress, anxiety and fear of COVID-19 in Colombian general practitioners. Methods: Cross-sectional study that belongs to Dinamicas Psicosociales Universitarias project with institutional endorsement from the Universidad de Cartagena, Colombia. A group of Colombian general practitioners was invited by social networks to fill out, on the first five days of April-2020, a Google Forms copyright form with questions about fear and opinions regarding COVID-19 with the tools Test of Labor Stress, Generalized Anxiety Disorder and Fear of COVID-19 Scale. The study was anonymous and voluntary with acceptance of terms

and informed consent. For the analysis of the information, two groups were formed: with perception of discrimination and without perception of discrimination, according to the answer to the question "Having had perception of discrimination due to their condition as a physician". Logistic regression was performed between perception of discrimination with anxiety, occupational stress and fear of COVID-19. Results: 531 Colombian doctors participated, half between 20-30 years. 207 (39%) reported perceived discrimination. Pandemic-related anxiety, stress and fear and professional work were highly prevalent and more frequent in the group with perceived discrimination (p <0.05). The presence and severity of anxiety, stress and fear of COVID-19 were associated with a greater presence of discrimination perception, while feeling protected by their work superiors was associated with a lower perception of discrimination. Conclusion: Two out of five participants reported perception of discrimination, a social phenomenon that was associated with anxiety, stress and fear during the COVID-19 pandemic.

Publication Type

  Journal article.

<78>

Accession Number

  20203581871

Author

  Sah, M. K.; Abanish Singh; Sangroula, R. K.

Title

  Knowledge of novel coronavirus disease (COVID-19) among dental surgeons of Nepal: a nationwide study.

Source

  BMC Infectious Diseases; 2020. 20(871). 24 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: COVID-19 is an emerging respiratory disease caused by a novel coronavirus. There is not much evidence assessing the knowledge of dental surgeons regarding COVID-19. This study was conducted to assess the knowledge of COVID-19 among dental surgeons of Nepal. Methods: A web-based cross-sectional study was conducted among registered dental surgeons of Nepal. Ethical approval was obtained. Consent was taken, and knowledge on COVID-19 was assessed via a pre-tested structured questionnaire

using Google form. The form was emailed to the participants. Descriptive analysis was performed using frequency, percentage, median and inter-quartile range. Man-Whitney test and Kruskal-Wallis tests were carried out to see the difference in knowledge score. P-value < 0.05 was considered statistically significant. Results: Total 227 dental surgeons responded to the questionnaire (male: 46.4%; female: 53.7%). Almost two-third (65.2%) of the respondents were B.D.S. (Bachelor of Dental Surgery) graduates. Only 29.1% worked in the government hospitals. 17.6% were currently involved in COVID-19 management. Of the participants, 87.7% knew about the condition of the requirement of Personal Protective Equipment (PPE) but only 29.1% could correctly answer the framed question for PPE. The median knowledge score calculated was 14.0 (8.0-18.0). The bivariate analysis showed a statistically significant difference in knowledge score among the age group 30 years and < 30 years (p=0.013); M.D.S. (Master of Dental Surgery) graduate and B.D.S. graduate (0.041); dental surgeons of government healthcare facilities and other healthcare facilities (p < 0.001); dental surgeons of COVID-19 centers and non-COVID-19 centers (0.002). Conclusion: The dental surgeons of Nepal have a good knowledge of COVID-19, and they can be utilized for assisting in the management of COVID-19 cases in Nepal.

Publication Type

  Journal article.

<79>

Accession Number

  20203581798

Author

  Verweij, P. E.; Rijnders, B. J. A.; Bruggemann, R. J. M.; Azoulay, E.; Bassetti, M.; Blot, S.; Calandra, T.; Clancy, C. J.; Cornely, O. A.; Chiller, T.; Depuydt, P.; Giacobbe, D. R.; Janssen, N. A. F.; Kullberg, B. J.; Lagrou, K.; Lass-Florl, C.; Lewis, R. E.; Liu WeiLun [Liu, W. L. P.]; Lortholary, O.; Maertens, J.; Martin-Loeches, I.; Nguyen, M. H.; Patterson, T. F.; Rogers, T. R.; Schouten, J. A.; Spriet, I.; Vanderbeke, L.; Wauters, J.; Veerdonk, F. L. van de

Title

  Review of influenza-associated pulmonary aspergillosis in ICU patients and proposal for a case definition: an expert opinion.

Source

  Intensive Care Medicine; 2020. 46(8):1524-1535. 67 ref.

Publisher

  Springer Berlin

Location of Publisher

  Heidelberg

Country of Publication

Germany

Abstract

Purpose: Invasive pulmonary aspergillosis is increasingly reported in patients with influenza admitted to the intensive care unit (ICU). Classification of patients with influenza-associated pulmonary aspergillosis (IAPA) using the current definitions for invasive fungal diseases has proven difficult, and our aim was to develop case definitions for IAPA that can facilitate clinical studies. Methods: A group of 29 international experts reviewed current insights into the epidemiology, diagnosis and management of IAPA and proposed a case definition of IAPA through a process of informal consensus. Results: Since IAPA may develop in a wide range of hosts, an entry criterion was proposed and not host factors. The entry criterion was defined as a patient requiring ICU admission for respiratory distress with a positive influenza test temporally related to ICU admission. In addition, proven IAPA required histological evidence of invasive septate hyphae and mycological evidence for Aspergillus. Probable IAPA required the detection of galactomannan or positive Aspergillus culture in bronchoalveolar lavage (BAL) or serum with pulmonary infiltrates or a positive culture in upper respiratory samples with bronchoscopic evidence for tracheobronchitis or cavitating pulmonary infiltrates of recent onset. The IAPA case definitions may be useful to classify patients with COVID-19-associated pulmonary aspergillosis (CAPA), while awaiting further studies that provide more insight into the interaction between Aspergillus and the SARS-CoV-2-infected lung. Conclusion: A consensus case definition of IAPA is proposed, which will facilitate research into the epidemiology, diagnosis and management of this emerging acute and severe Aspergillus disease, and may be of use to study CAPA.

Publication Type

Journal article.

<80>

Accession Number

20203581666

Author

Gao XuDong; Kong Chan; Fan HongRu; Zhang Juan; Chen Shu; Wang Jing

Title

The status of grief counseling among front-line nurses during the coronavirus disease 2019 epidemic. [Chinese]

Source

Academic Journal of Second Military Medical University; 2020. 41(8):849-854. 21 ref.

Publisher

Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

Shanghai

Country of Publication

China

Abstract

Objective: To investigate the status of grief counseling among front-line nurses in Wuhan during the coronavirus disease 2019 (COVID-19) epidemic, so as to provide reference for formulating reasonable nursing management strategies. Methods: A total of 225 front-line nurses were investigated with a basic information questionnaire and attitudes and skills of grief counseling scales. Results: A total of 214 valid questionnaires were collected, with an effective rate of 95.1%. The score of grief counseling attitudes of nurses was 32.80+or-9.41, which was in the middle level. Other grief counseling skills, communication ability, whether they had received relevant training, and frequency of contacting bereaved family members had significant impacts on nurses' grief counseling attitudes (P < 0.05). The score of grief counseling skills was 19.24+or-4.10, which was in the lower middle level. Grief counseling, frequency of contacting bereaved family members, grief counseling training, and education background had significant impacts on nurses' grief counseling skills (P < 0.05). Conclusion: During the COVID-19 epidemic, there have been room for improvement in grief counseling for bereaved family members among nurses in Wuhan. It is suggested to set up a grief counseling nursing group and establish a long-term and sound training framework.

Publication Type

Journal article.

<81>

Accession Number

20203581665

Author

Gao XuDong; Kong Chan; Fan HongRu; Zhang Juan; Chen Shu; Wang Jing

Title

A survey of grief counseling of clinicians from coronavirus disease 2019 designated hospitals. [Chinese]

Source

Publisher

Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

Shanghai

Country of Publication

China

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www.rcvsknowledge.org   P a g e | 80

Abstract

  Objective: To investigate the current status of grief counseling of clinicians from five coronavirus disease 2019 (COVID-19) designated hospitals in Wuhan and to provide reference for hospital management. Methods: A total of 223 clinicians from designated hospitals were investigated with a basic information questionnaire and attitudes and skills of grief counseling scales. Results: A total of 208 valid questionnaires were collected, with an effective rate of 93.3%. The score of grief counseling skills of clinicians from COVID-19 designated hospitals was 19.35+or-4.75, which was in the middle and lower level. Responsibilities and roles, and frequency of contacting bereaved family members had significant effects on the grief counseling skills (P < 0.01). While the score of grief counseling attitudes of clinicians was 33.21+or-9.23, which was in the middle level. Whether they had received relevant training, the communication ability, and other grief counseling skills had significant impacts on their grief counseling attitudes (P < 0.01). Conclusion: The skills and attitudes of grief counseling of clinicians from COVID-19 designated hospitals in Wuhan still need to be improved. The hospital should set up a grief counseling committee, establish a complete grief guidance system and build a long-term training mechanism.

Publication Type

  Journal article.

<82>

Accession Number

  20203581663

Author

  Hou TianYa; Dong Wei; Cai WenPeng; Deng GuangHui

Title

  Panic state and related influencing factors among military personnel during coronavirus disease 2019 outbreak. [Chinese]

Source

  Academic Journal of Second Military Medical University; 2020. 41(8):832-837. 13 ref.

Publisher

  Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

  Shanghai

Country of Publication

  China

Abstract

Objective: To explore the panic state and related influencing factors among military personnel during the early epidemic stage of coronavirus disease 2019 (COVID-19). Methods: In the early stage of the COVID-19 epidemic, 431 officers and soldiers stationed in Hebei were randomly selected by the cluster sampling method and investigated with psychological stress self-evaluation test (PSET), self-rating anxiety scale, and self-designed questionnaires regarding the knowledge of COVID-19, sources of psychological panic scale, evaluation scale of various information released and risk perception scale. Results: A total of 411 valid questionnaires were collected, with an effective rate of 95.36%. The results showed that 5.84% (24/411) of the officers and soldiers were in psychological stress state and 4.14% (17/411) in psychological panic state. The psychological panic score of officers and soldiers in psychological stress state (47.76+or-6.51) was significantly higher than that in non-stress state (32.95+or-10.94), and the difference was statistically significant (t=106.01, P < 0.01). There were significant differences in their understanding of different dimensions of COVID-19 knowledge (X2=91.53, P < 0.01). The high proportions of lack of understanding were found for COVID-19 related research progress (22.87%, 94/411) and symptoms (20.92%, 86/411). The main sources of psychological panic were the highly infectious trait of the virus, all wearing masks and eye glasses, information from the Internet and so on. Among all kinds of released information, the numbers of cumulative confirmed cases, new confirmed cases and cumulative suspected cases were the concerned epidemic information. The age, degree of anxiety in risk perception, possibility of infection, level of psychological stress and knowledge regarding COVID-19 were the predictors of psychological panic among military personnel (P < 0.05 or P < 0.01). Among the dimensions of risk perception, the predictors for apprehension regarding COVID-19 among military personnel included.

Publication Type

Journal article.

<83>

Accession Number

20203581662

Author

Xue XiaoCheng; Jiang HaiYan; Chen XiaoPing; Zhang Yi; She HuiYuan

Title

Visits of fever clinic during the epidemic of coronavirus disease 2019: a preliminary analysis. [Chinese]

Source

Academic Journal of Second Military Medical University; 2020. 41(8):828-831. 10 ref.

Publisher

Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

Shanghai

Country of Publication

China

Abstract

Objective: To observe the visits of fever clinic during the epidemic of coronavirus disease 2019 (COVID-19) and the epidemic characteristics of COVID-19, so as to analyze the disease development trend. Methods: The clinical data of fever outpatients (including covid-19 patients) in Gongli Hospital affiliated to Naval Medical University (Second Military Medical University) from Jan. 15, 2020 to Feb. 29, 2020 were collected for epidemiological descriptive analysis. Results: Among the 2 193 patients visiting our hospital between Jan. 15, 2020 and Feb. 29, 2020, 97.08% had respiratory system infection, followed by digestive system infection and urinary system infection. Eighty-one suspected cases and 10 confirmed cases of COVID-19 were identified. Among the suspected cases, there were 38 males (46.91%) and 43 females (53.09%). Among the confirmed cases, four were males and six were females. The onset age of the suspected cases ranged from 20 to 69 years old (83.95%), and all the 10 confirmed patients were 50 years old. The suspected patients were mainly employees (31 cases, 38.27%) and retirees (14 cases, 17.28%). Among the 10 confirmed patients, eight cases were retirees. Of the suspected cases, 15 (18.52%) had lived in Hubei province and 52 (64.20%) had an epidemiological history. Of the confirmed cases, seven had lived in Hubei province and all had an epidemiological histories. The onset cycles of suspected and confirmed cases were mainly from Jan. 21, 2020 to Feb. 10, 2020. The main clinical symptoms of the suspected cases were fever (66 cases, 81.48%) and cough (50 cases, 61.73%). The blood routine showed normal white blood cell (65 cases, 80.25%), normal lymphocyte (49 cases, 60.49%) and decreased lymphocyte (24 cases, 29.63%). Chest CT showed COVID-19 characteristics in 13 cases (16.05%). Among the 10 confirmed patients, the main clinical manifestations were also fever (nine cases) and cough (eight cases). The blood routine showed normal white blood cells (10 cases), normal lymphocytes (six cases) and decreased lymphocytes (four cases). Chest CT showed COVID-19 characteristics in seven cases. Conclusion: COVID-19 is more common in middle-aged and elderly retirees, with significant epidemiological and family clustering characteristics.

Publication Type

Journal article.

<84>

Accession Number

20203581560

Author

Soni, V. K.; Arundhati Mehta; Ratre, Y. K.; Tiwari, A. K.; Ajay Amit; Singh, R. P.; Sonkar, S. C.; Navaneet Chaturvedi; Dhananjay Shukla; Vishvakarma, N. K.

Title

Curcumin, a traditional spice component, can hold the promise against COVID-19? (Special Issue: Therapeutic targets and pharmacological treatment of COVID-19.)

Source

European Journal of Pharmacology; 2020. 886. many ref.

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Publisher

Elsevier Science Publishers B.V, Biomedical Division

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The severity of the recent pandemic and the absence of any specific medication impelled the identification of existing drugs with potential in the treatment of Coronavirus disease-2019 (COVID-19), caused by severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2). Curcumin, known for its pharmacological abilities especially as an anti-inflammatory agent, can be hypothesized as a potential candidate in the therapeutic regimen. COVID-19 has an assorted range of pathophysiological consequences, including pulmonary damage, elevated inflammatory response, coagulopathy, and multi-organ damage. This review summarizes the several evidences for the pharmacological benefits of curcumin in COVID-19-associated clinical manifestations. Curcumin can be appraised to hinder cellular entry, replication of SARS-CoV-2, and to prevent and repair COVID-19-associated damage of pneumocytes, renal cells, cardiomyocytes, hematopoietic stem cells, etc. The modulation and protective effect of curcumin on cytokine storm-related disorders are also discussed. Collectively, this review provides grounds for its clinical evaluation in the therapeutic management of SARS-CoV-2 infection.

Publication Type

Journal article.

<85>

Accession Number

20203581556

Author

Deshpande, R. R.; Tiwari, A. P.; Narendra Nyayanit; Manisha Modak

Title

In silico molecular docking analysis for repurposing therapeutics against multiple proteins from SARS-CoV-2. (Special Issue: Therapeutic targets and pharmacological treatment of COVID-19.)

Source

European Journal of Pharmacology; 2020. 886. 49 ref.

Publisher

Elsevier Science Publishers B.V, Biomedical Division

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Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  SARS-CoV-2 has devastated the world with its rapid spread and fatality. The researchers across the globe are struggling hard to search a drug to treat this infection. Understanding the time constraint, the best approach is to study clinically approved drugs for control of this deadly pandemic of COVID 19. The repurposing of such drugs can be supported with the study of molecular interactions to enhance the possibility of application. The present work is a molecular docking study of proteins responsible for viral propagation namely 3 Clpro, Nsp10/16, Spike protein, SARS protein receptor binding domain, Nsp 9 viral single strand binding protein and viral helicase. The protein through virus enters the host cell-human angiotensin-converting enzyme 2 (ACE2) receptor, is also used as a target for molecular docking. The docking was done with most discussed drugs for SARS-CoV-2 like Ritonavir, Lopinavir, Remdesivir, Chloroquine, Hydroxychloroquine (HCQ), routine antiviral drugs like Oseltamivir and Ribavirin. In addition, small molecules with anti-inflammatory actions like Mycophenolic acid (MPA), Pemirolast, Isoniazid and Eriodictyol were also tested. The generated data confirms the potential of Ritonavir, Lopinavir and Remdesivir as a therapeutic candidate against SARS-CoV-2. It is observed that Eriodictyol binds to almost all selected target proteins with good binding energy, suggesting its importance in treatment of COVID 19. Molecular interactions of Ritonavir, Lopinavir and Remdesivir against SARS-CoV-2 proteins enhanced their potential as a candidate drug for treatment of COVID-19. Eriodictyol had emerged as a new repurposing drug that can be used in COVID-19.

Publication Type

  Journal article.

<86>

Accession Number

  20203581463

Author

  Zhang HongYi; Shi YuQin; Jing Ping; Zhan PeiYan; Fang Yue; Wang Fang

Title

  Posttraumatic stress disorder symptoms in healthcare workers after the peak of the COVID-19 outbreak: a survey of a large tertiary care hospital in Wuhan.

Source

  Psychiatry Research; 2020. 294. 35 ref.

Publisher

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Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This study examined the prevalence of posttraumatic stress disorder (PTSD) symptoms and assessed mental illness via an online survey among healthcare workers (HCWs) at the Central Hospital of Wuhan after the peak of the COVID-19 outbreak. PTSD symptoms were measured using the PTSD Checklist Civilian Version (PCL-C), with a cutoff score of 50. Among the 642 HCWs, the prevalence of probable PTSD was 20.87%. Additionally, 88.88%, 82.09%, 100%, and 95.52% of HCWs with probable PTSD reported varying degrees of anxiety, depression, somatic symptoms, and insomnia, respectively. HCWs with probable PTSD scored higher on the Hospital Anxiety and Depression Scale (HADS), Patient Health questionnaire-15 (PHQ-15), and Insomnia Severity Index (ISI) than non-PTSD HCWs (all $p < 0.05$). Multivariate regression analysis revealed that HCWs with negative COVID-19 tests (OR, 0.35; 95% CI, 0.21-0.58; $p < 0.00$), those with high Social Support Self-Rating Scale (SSRS) scores (OR, 0.30; 95% CI, 0.17-0.52; $p < 0.00$), and HCWs whose family members tested negative (OR, 0.64; 95% CI, 0.42-0.96; $p = 0.03$) were less likely to have probable PTSD. This study found a high prevalence of probable PTSD and severe mental illness among local HCWs. Our finding emphasizes the need to provide mental health support for HCWs.

Publication Type

Journal article.

<87>

Accession Number

20203581462

Author

Salameh, P.; Hajj, A.; Badro, D. A.; Selwan, C. A.; Aoun, R.; Sacre, H.

Title

Mental health outcomes of the COVID-19 pandemic and a collapsing economy: perspectives from a developing country.

Source

Psychiatry Research; 2020. 294.

Publisher

Elsevier Ltd

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P a g e | 86

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The COVID-19 pandemic has affected physical and mental health worldwide, particularly vulnerable populations with lower social and economic status. This study explored the independent and combined effects of the COVID-19 and economy-related variables on stress and anxiety among Lebanese adults in a developing country facing a severe socio-economic crisis and political turmoil. A cross-sectional study was conducted online between May 10 and 20, 2020, using the snowball sampling technique. All individuals over 18 were eligible. The final sample included 502 respondents. Higher stress and anxiety were associated with younger age, female gender, previous higher socio-economic status, having a family member with a chronic disease, fear of not getting access to treatment, fear of COVID-19, and physical violence at home. However, financial wellness and higher family satisfaction were significantly associated with lower stress. The multivariate analysis showed a significant interaction between fear of COVID-19 and financial wellness on estimated marginal means of stress and anxiety. The combined presence of fear of the pandemic and financial hardship is associated with higher stress and anxiety, particularly among women and younger Lebanese adults with difficult home circumstances. Thus, healthcare professionals need to screen for mental health problems among subgroups presenting multiple risk factors.

Publication Type

Journal article.

<88>

Accession Number

20203581281

Author

Habibi, S. A.; Azizan, A.; Ehteshaminia, Y.; Jadidi-Niaragh, F.; Enderami, S. E.; Akbari, E.; Abediankenari, S.; Hassannia, H.

Title

Design of a multi-epitope peptide vaccine against SARS-CoV-2 based on immunoinformatics data. [Persian]

Source

Journal of Mazandaran University of Medical Sciences; 2020. 30(190):126-132. 14 ref.

Publisher

Mazandaran University of Medical Sciences

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Page | 87

Location of Publisher

Sari

Country of Publication

Iran

Abstract

Background and purpose: In 2019, the world has witnessed the emergence of a virus that caused acute respiratory distress syndrome in human with high mortality rates (approximately 3.7%). So far, no effective treatment has been proven against COVID-19. This study aimed at designing a multiepitope vaccine combining several T-cell and B-cell epitopes of the SARS-CoV-2. Materials and methods: Based on immunoinformatics strategies, B-cell and T-cell epitopes were predicted using immune Epitope Database and Analysis Resource (IEDB). Then, the appropriate predicted epitopes were joined to each other by suitable linkers, and the multi-epitope vaccine constructed was suggested as a vaccine candidate against SARS-CoV-2. Results: In this study, 28 B-cell epitopes and 33 T-cell epitopes were predicted. Then, to design the multi epitope vaccine, 5 epitopes were used from the virion surface of spike protein and one epitope was used from intravirion region of the Envelope, Membrane, and Nucleocapsid proteins that later on were joined with flexible glycine linker. Conclusion: Based on the immunoinformatics results obtained, it seems that different epitopes from SARS-CoV-2 structural proteins have high ability to stimulate humoral and cellular immune responses, so the multi-epitope vaccine designed with these epitopes, can help to accelerate the production of effective vaccines against COVID-19.

Publication Type

Journal article.

<89>

Accession Number

20203581274

Author

Khazaee-Pool, M.; Shahrvsand, S.; Naghibi, S. A.

Title

Predicting COVID-19 preventive behaviors based on health belief model: an internet-based study in Mazandaran province, Iran. [Persian]

Source

Journal of Mazandaran University of Medical Sciences; 2020. 30(190):56-66. 18 ref.

Publisher

Mazandaran University of Medical Sciences

Location of Publisher

Sari

Country of Publication

Iran

Abstract

Background and purpose: Coronavirus disease (COVID-19) is an infectious disease caused by the new corona virus. The disease has led to high death toll and extensive damage throughout the world. The aim of this study was to determine the predictors of COVID-19 preventive behaviors in Iranian population based on the Health Belief Model. Materials and methods: A descriptive-analytical cross-sectional study was carried out in 400 individuals older than 18 years of age in Mazandaran Province, Iran 2020. They were selected using convenience sampling in social networks. Data were collected by a researcher-made scale based on Health Belief Model. Data analysis was done applying Pearson correlation coefficient and linear regression. Results: There were significant positive correlations between preventive behaviors of COVID-19 and perceived susceptibility (r=0.2, P=0.000), perceived benefits (r=0.127, P=0.011), perceived barriers (r=0.189, P=0.000), and perceived self-efficacy (r=0.302, P=0.000). The Health Belief Model constructs predicted 26% of variance for preventive behaviors of COVID-19, among which, perceived self-efficacy (beta=0.220) was the most powerful predictor. Conclusion: This study confirmed the predictive role of self-efficacy in COVID-19 preventive behaviors according to the Health Belief Model. Thus, providing ways to increase self-efficacy such as verbal persuasion, increasing awareness about people abilities, and providing them with suitable models could promote preventive behaviors toward COVID-19.

Publication Type

Journal article.

<90>

Accession Number

20203581218

Author

Dawood, A. A.; Altobje, M. A.

Title

Inhibition of N-linked glycosylation by tunicamycin may contribute to the treatment of SARS-CoV-2.

Source

Microbial Pathogenesis; 2020. 149. 34 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

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Country of Publication

  UK

Abstract

  SARS-CoV-2 remains a medical and economic challenge, due to the lack of a suitable drug or vaccine. The glycans in some proteins play a pivotal role in protein folding, oligomerization, quality control, sorting, and transport so the hindering of N-linked glycosylation of glycoproteins will prevent assembly of the virion. Tunicamycin an anticancer drug inhibit the N- linked glycans. Our study aimed to find out the mechanism action of tunicamycin on the viral glycoproteins. The growth of coronavirus in the presence inhibitor tunicamycin resulted in the production of spikeless, non-infectious virions which were devoid of S protein. We concluded that tunicamycin inhibits E2, S, and M glycoproteins of coronaviruses. Tunicamycin is also diminished glycosylation of PTMs such as HE, and 8 ab of SARS-CoV. Finally, we recommend using this drug to treat the SARS-CoV-2.

Publication Type

  Journal article.

<91>

Accession Number

  20203581216

Author

  Soumya Basu; Balaji Veeraraghavan; Sudha Ramaiah; Anand Anbarasu

Title

  Novel cyclohexanone compound as a potential ligand against SARS-CoV-2 main-protease.

Source

  Microbial Pathogenesis; 2020. 149. 19 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  No commercially available drug candidate has yet been devised which is unique to and not repurposed against SARS-CoV-2 and has high efficacy or safe toxicity profile or both. Taking curcumin as a reference

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compound, we identified a new commercially available cyclohexanone compound, ZINC07333416 with binding energy (-8.72 kcal/mol) better than that of popularly devised anti-Covid-19 drugs like viral protease inhibitor Lopinavir, nucleoside analogue Remdesivir and the repurposed drug hydroxychloroquine when targeted to the active-site of SARS-CoV-2 Main protease (Mpro) through docking studies. The ligand ZINC07333416 exhibits crucial interactions with major active site residues of SARS-CoV-2 Mpro viz. Cys145 and His41 involving in the protease activity; as well as GLU-166 and ASN-142 which plays the pivotal role in the protein-dimerization. The protein-ligand stable interaction was further confirmed with molecular dynamics simulation (MDS) studies. Based on virtual assessment, ZINC07333416 also have significant values in terms of medicinal chemistry, pharmacokinetics, synthetic accessibility and anti-viral activity that encourage its experimental applications against COVID-19.

Publication Type

Journal article.

<92>

Accession Number

20203581212

Author

Cuevas-Barragan, C. E.; Buenrostro-Nava, M. T.; Palos-Gomez, G. M.; Ramirez-Padilla, E. A.; Mendoza-Macias, B. I.; Rivas-Caceres, R. R.

Title

Use of NasoilR via intranasal to control the harmful effects of COVID-19.

Source

Microbial Pathogenesis; 2020. 149. 56 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In the absence of vaccines and antiviral drugs available to prevent and treat COVID-19, it becomes imperative to find or use all those products with the potential to fight this virus. This article is an attempt to propose ways to prevent, treat and control the COVID-19 virus, using a product based on plant extracts with the potential to reduce the symptoms caused by the SARS-CoV-2 virus. NasoilR counts as one of its main components, Asclepias curassavica extracts, and in the present study it has been shown that it is an

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effective adjuvant in the treatment of Covid-19, increasing the respiratory capacity of the patients (SpO2> 90%) and reducing the symptoms from the first application, improving the patients around the fifth to the eighth application. At a preventive level, the individuals in this study who have applied it (400 individuals) only a 3.15% of these presented symptoms, disappearing when increasing the weekly applications.

Publication Type

Journal article.

<93>

Accession Number

20203581121

Author

Wu JianPing

Title

A novel angiotensin converting enzyme 2 (ACE2) activating peptide: a reflection of 10 years of research on a small peptide Ile-Arg-Trp (IRW).

Source

Journal of Agricultural and Food Chemistry; 2020. 68(49):14402-14408. 61 ref.

Publisher

American Chemical Society

Location of Publisher

Washington

Country of Publication

USA

Abstract

IRW (Ile-Arg-Trp) was identified as an inhibitor of angiotensin converting enzyme (ACE) from egg white protein ovotransferrin through an integrated in silico digestion and quantitative structure and activity relationship prediction in 2011. Oral administration of IRW to spontaneously hypertensive rats (SHRs) can significantly reduce blood pressure, via upregulation of ACE2, but not through the inhibition of ACE. ACE2 converts Ang II into Ang (1-7), thus lowering blood pressure via Mas receptor (MasR); coinfusion of Mas receptor antagonist A779 and IRW in SHRs abolished blood pressure-lowering effect of IRW, supporting a key role of ACE2/Ang (1-7)/MasR axis. Our ongoing study further established new roles of IRW as an antioxidant, an anti-inflammatory agent, an insulin sensitizer, and a bone cell anabolic. Future studies are warranted to understand the unique structure features of this peptide, its mechanisms of action at various targets, its bioavailability and metabolism, and its possible roles toward COVID-19.

Publication Type

 Journal article.

<94>

Accession Number

 20203581033

Author

 Tu WenXiao; Li JingXin; Wang Rui; Meng Ling; Xiang NiJuan; Shi GuoQing

Title

 Risk assessment of public health emergencies concerned in the mainland of China, October 2020.
[Chinese]

Source

 Disease Surveillance; 2020. 35(10):879-882. 2 ref.

Publisher

 Editorial Board of Disease Surveillance

Location of Publisher

 Beijing

Country of Publication

 China

Abstract

 Objective: To assess the risk of public health emergencies, both the indigenous ones and the imported
ones, which might occur in the mainland of China in October 2020. Methods: An internet based expert
counsel was conducted on 29 September 2020 by Chinese Center for Disease Control and Prevention to
analyze the surveillance data of public health emergencies and priority communicable diseases both at
home and abroad reported through different channels, and the experts in all provincial centers for disease
control and prevention attended this conference through video terminal. Results: It is predicted that the
incidence of public health emergencies in October would be higher than in September, 2020, and might be
similar to the average level during the same period in previous years as the reopen of schools and recovery
of economic activities. At present, the global coronavirus disease 2019 (COVID-19) pandemic is still ongoing
out of control. The low risk status (without local transmission) of COVID-19 in China has been maintained
since 29 August 2020, but the risk of imported cases and local transmission of COVID-19 still exists. By now,
the active strategy to prevent the importation and re-emergency of COVID-19 in China has been taking,
once the local transmission is detected, accurate prevention and control based on routine measures will be
conducted, including local emergency response as situation demands. By strengthening the quarantine at
international airports and land border ports in China, improving the monitoring of imported frozen

products and strengthening the management of illegal entry, China can effectively detect and timely control the new local transmission of COVID-19 in the future. Norovirus infectious diarrhea and food poisoning are also public health concerns, especially during the 8 days of National Day festival and mid-autumn festival. Conclusion: Special attention should be paid to COVID-19, and general attention should be paid to norovirus infectious diarrhea and food poisoning.

Publication Type

Journal article.

<95>

Accession Number

20203581032

Author

Han Hui; Wu Bo; Li HaiShan; Jia JiaoJiao

Title

Summary of global surveillance data of infectious diseases in September 2020. [Chinese]

Source

Disease Surveillance; 2020. 35(10):876-878. 8 ref.

Publisher

Editorial Board of Disease Surveillance

Location of Publisher

Beijing

Country of Publication

China

Abstract

In September 2020, a total of 61 infectious diseases were reported globally, affecting 217 countries and regions. Except for influenza, the top five infectious diseases affecting greatest number of countries and regions were coronavirus disease 2019 (COVID-19, 217), dengue fever (27), measles (10), poliomyelitis (10) and cholera (8). The top five infectious diseases with highest case fatality rates were Ebola virus disease (41.4%), Lassa fever (20.7%), West Nile fever (11.5%), monkeypox (3.7%) and COVID-19 (3.0%). The top five infectious diseases with greatest number of deaths were COVID-19, dengue fever, West Nile fever, cholera and Ebola virus disease. The prevalent infectious diseases in Asia were COVID-19 and dengue fever, the prevalent infectious diseases in Africa were COVID-19, Ebola virus disease, cholera, yellow fever, Lassa fever and measles, the prevalent infectious diseases in America were COVID-19 and dengue fever, the prevalent infectious diseases in Europe were COVID-19, West Nile fever and measles.

Publication Type

  Journal article.

<96>

Accession Number

  20203580755

Author

  Tuncel, O. K.; Pullukcu, H.; Erdem, H. A.; Kurtaran, B.; Tasbakan, S. E.; Tasbakan, M. I.

Title

  COVID-19-related anxiety in people living with HIV: an online cross-sectional study.

Source

  Turkish Journal of Medical Sciences; 2020. 50(8):1792-1800. 36 ref.

Publisher

  Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

  Ankara

Country of Publication

  Turkey

Abstract

  Background/aim: The emergence of the coronavirus disease 2019 (COVID-19) outbreak has had an
enormous emotional impact on some vulnerable groups, such as people living with human
immunodeficiency virus (HIV) (PLHIV). This study was planned with the aim of assessing the anxiety levels
of PLHIV and the sources of their anxiety. Materials and methods: A web-based questionnaire was sent to
PLHIV using the virtual snowball sampling method. The questionnaire included questions about
sociodemographic status, information about HIV infection, and the Beck Anxiety Inventory (BAI).
Additionally, some opinions of the participants about COVID-19 were asked. Results: A total of 307
respondents, with a median age of 33 years, from 32 different cities, participated in the study. More than
half of the respondents reported the belief that COVID-19 was not sufficiently well-known by the medical
community and nearly 45% believed that they would have more complications if they contracted COVID-19.
One-fourth of the participants had anxiety. Having a preexisting psychiatric disorder, perceiving that they
were practicing insufficient preventive measures, not being sure about the presence of any individuals with
COVID-19 in their environment, and living with a household member with a chronic disease were found to
be the risk factors of PLHIV for having anxiety during this pandemic. The BAI scores were correlated with
the patient-reported anxiety levels about the spread of COVID-19 in Turkey, acquiring COVID-19,
transmitting COVID-19 to another person, and transmitting HIV to another person. Among the stated

conditions, the most common concern was the spread of COVID-19 all over the country, while the least common was transmitting HIV to someone else. Conclusion: The results revealed that a significant proportion of the sample had anxiety, and the findings were essential for developing evidence-based strategies for decreasing the anxiety of PLHIV, especially for those who had risk factors and to provide them with better health care during this pandemic or other pandemic-like crises.

Publication Type

Journal article.

<97>

Accession Number

20203580752

Author

Demir, A.; Erayman, I.; Dogan, O.; Kekilli, M.

Title

Influence of aluminum salts on COVID-19 infected patients.

Source

Turkish Journal of Medical Sciences; 2020. 50(8):1771-1780. 17 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Background/aim: Based on the antiviral and antibacterial properties of aluminum salts, we aimed to find out the influence of aluminum salts on COVID-19 infected patients. Materials and methods: We performed an observational retrospective cohort study which includes the patients diagnosed as COVID-19 and received aluminum salts in addition to actual treatments during hospitalization as the treatment group (Alum Group). Patients who received standard COVID-19 treatment protocols in the Infectious Diseases Clinics were included as the Control Group. Clinical findings, laboratory parameters, length of stay, survival, radiological follow-up, intensive care and mechanical ventilation needs, the presence of comorbidity, polymerase chain reaction (PCR) tests, symptoms, symptom recovery times, hospital stay times, treatment protocols, and clinical presence of pneumonia were examined in all patients. Advanced chemical composition analyzes of existing aluminum salts were also performed. Results: A total of 109 patients, 54 in the alum group and 55 in the control group, were included in the study. None of the patients in the

aluminum group developed side effects due to the intake of aluminum salt. Survival status was significantly different between the two groups as there were 5 loss in the Control Group and none in the Alum Group (P=0.023). The symptom recovery time was significantly shorter in the Alum Group; 2 (1-3) vs. 1 (1-2) days, P=0.003. According to the paired samples analyses of the comparison between hospitalization and discharge, CRP levels significantly drops in the Alum Group (from 54.09 to 27, P=0.001) but not in the Control Group. The drop was significantly same for the lactate dehydrogenase (LDH) and procalcitonin levels with P=0.001. Conclusion: It has been observed that aluminum salts have beneficial effects in COVID-19 infected cases. Considering the low systemic toxicity of intermittent oral intake of aluminum salts as food supplements and the fact that pandemic control is still not achieved, the use of aluminum salts is promising.

Publication Type

 Journal article.

<98>

Accession Number

 20203580751

Author

 Kavak, D. G.; Oksuz, A. S.; Cengiz, C.; Kayral, I. H.; Senel, F. C.

Title

 The importance of quality and accreditation in health care services in the process of struggle against COVID-19.

Source

 Turkish Journal of Medical Sciences; 2020. 50(8):1760-1770. 29 ref.

Publisher

 Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

 Ankara

Country of Publication

 Turkey

Abstract

  Background/aim: The aim of this research is to evaluate the relationship between the quality of health and accreditation standards with the Covid-19 process and to reveal the importance of quality and accreditation in health care in the process of combating coronavirus. Materials and methods: The relationship between hospital accreditation standards of Turkish Healthcare Quality and Accreditation Institute and the Covid-19 process was evaluated. The standards were analyzed within the framework of

the technical guidance areas provided by the World Health Organization for countries for the Covid-19 process. Results: The standards were found to be 79,6% related to the Covid-19 process. The standard set including risk management, health and safety of employees, patient safety, end of life services, prevention of infections, drug management, sterilization management, laboratory services, waste management, outsourcing, material and device management, adverse event reporting, corporate communication, and social responsibilities sections are 100% related to the Covid-19 process. Conclusion: Studies on quality and accreditation in health services are important in terms of being prepared for Covid-19 and similar epidemic and pandemic situations, and to carry out planned and effective management of the process.

Publication Type

  Journal article.

<99>

Accession Number

  20203580688

Author

  Theoharides, T. C.; Antonopoulou, S.; Demopoulos, C. A.

Title

  Coronavirus 2019, microthromboses, and platelet activating factor.

Source

  Clinical Therapeutics; 2020. 42(10):1850-1852. 36 ref.

Publisher

  Excerpta Medica Inc.

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  Recent articles have reported elevated markers of coagulation, endothelial injury, and microthromboses in lungs from deceased patients with coronavirus 2019 (COVID-19). Platelets are critical in the formation of thrombi, and their most potent trigger is platelet activating factor (PAF). PAF is produced by cells involved in host defense, and its biological actions bear similarities with COVID-19 disease manifestations, including pulmonary microthromboses and inflammation, possibly via activation of mast cells. The histamine1 receptor antagonist rupatadine was developed to have anti-PAF activity and inhibits activation of human mast cells in response to PAF. Rupatadine could be repurposed for COVID-19 prophylaxis.

Publication Type

Journal article.

<100>

Accession Number

20203580656

Author

Milne, R. J.; Delcea, C.; Cotfas, L. A.

Title

Airplane boarding methods that reduce risk from COVID-19.

Source

Safety Science; 2021. 134.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Airlines have recently instituted practices to reduce the risk of their passengers becoming infected with the novel coronavirus (SARS-CoV-2). Some airlines block their airplanes' middle seats to preserve social distancing among seated passengers. In this context, we present six new boarding methods and compare their performance with that of the two best boarding methods used to date with social distancing. We evaluate the eight boarding methods using three performance metrics related to passenger health and one operational metric (airplane boarding time) for a one-door airplane. The three health metrics reflect the risks of virus spread by passengers through the air and surfaces (e.g. headrests and seat arms) and consider the amount of aisle social distancing between adjacent boarding passengers walking towards their seats. For an airline that highly values the avoidance of window seat risk, the best method to use is one of the new methods: back-to-front by row - WilMA, though it will result in a longer time to complete boarding of the airplane. Airlines placing greater emphasis on fast boarding times-- while still providing favorable values for the health metrics--will be best served by using new methods back-to-front by row - WilMA - offset 2 and - offset 3 when aisle social distancing is 1 m and 2 m respectively.

Publication Type

Journal article.

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<101>

Accession Number

  20203580626

Author

  Liu XiaoCao; Raghuvanshi, R.; Ceylan, F. D.; Bolling, B. W.

Title

  Quercetin and its metabolites inhibit recombinant human angiotensin-converting enzyme 2 (ACE2) activity.

Source

  Journal of Agricultural and Food Chemistry; 2020. 68(47):13982-13989. 48 ref.

Publisher

  American Chemical Society

Location of Publisher

  Washington

Country of Publication

  USA

Abstract

  Angiotensin-converting enzyme 2 (ACE2) is a host receptor for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Inhibiting the interaction between the envelope spike glycoproteins (S-proteins) of SARS-CoV-2 and ACE2 is a potential antiviral therapeutic approach, but little is known about how dietary compounds interact with ACE2. The objective of this study was to determine if flavonoids and other polyphenols with B-ring 3',4'-hydroxylation inhibit recombinant human (rh)ACE2 activity. rhACE2 activity was assessed with the fluorogenic substrate Mca-APK(Dnp). Polyphenols reduced rhACE2 activity by 15-66% at 10 M. Rutin, quercetin-3-O-glucoside, tamarixetin, and 3,4-dihydroxyphenylacetic acid inhibited rhACE2 activity by 42-48%. Quercetin was the most potent rhACE2 inhibitor among the polyphenols tested, with an IC50 of 4.48 M. Thus, quercetin, its metabolites, and polyphenols with 3',4'-hydroxylation inhibited rhACE2 activity at physiologically relevant concentrations in vitro.

Publication Type

  Journal article.

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100

<102>

Accession Number

20203580533

Author

Yang Bo; Yang Jing; Zhou Lan; Xue Cheng; Li HongXian; Hu WeiFeng; Liu NanMei

Title

Inflammatory cytokine depletion in severe coronavirus disease 2019 infectious pneumonia a case report.

Source

Medicine (Baltimore); 2020. 99(49). 9 ref.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

Hagerstown

Country of Publication

USA

Abstract

Rationale: Multiorgan/system injury was observed in severely infected coronavirus disease 2019 (COVID-19) patients, in addition to viral pneumonia. Recognizing and correcting the key and immediate dysfunctions may reduce mortality. Patient concerns: A 66-year-old previously healthy male patient was referred to the isolation ward in Guanggu Branch of Hubei Province Maternity and Childcare Hospital with a high fever and nonproductive cough for twenty days. Diagnoses: Diagnosis of severe COVID-19 infectious pneumonia was established by travel history, clinical features, chest imaging, and a positive oropharyngeal swab specimen result for the severe acute respiratory syndrome coronavirus 2 RT-PCR assay. Interventions: In addition to standard supportive care, combined inflammatory cytokine depletion therapy (double filtration plasma pheresis and tocilizumab) and convalescent plasma were administered. Outcomes: The patient's homeostatic parameters (blood pressure, heart rate, spontaneous respiration, SPO2, and blood gas) recovered, along with the recovery on chest imaging. All the intravenous catheters were removed. Supportive care continued for several days, and the patient was transferred to a non-ICU isolation ward. Lessons: It is not safe to draw causal conclusions between cytokine depletion and clinical manifestation improvement with only 1 case, but this is a potential research direction in facing the COVID-19 crisis.

Publication Type

Journal article.

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101

<103>

Accession Number

  20203580365

Author

  Akour, A.; Al-Tammemi, A. B.; Barakat, M.; Kanj, R.; Fakhouri, H. N.; Malkawi, A.; Musleh, G.

Title

  The impact of the COVID-19 pandemic and emergency distance teaching on the psychological status of university teachers: a cross-sectional study in Jordan.

Source

  American Journal of Tropical Medicine and Hygiene; 2020. 103(6):2391-2399. 42 ref.

Publisher

  American Society of Tropical Medicine and Hygiene

Location of Publisher

  Deerfield

Country of Publication

  USA

Abstract

  The COVID-19 pandemic has struck many countries globally. Jordan has implemented strict nationwide control measures to halt the viral spread, one of which was the closure of universities and shifting to remote teaching. The impact of this pandemic could extend beyond the risk of physical harm to substantial psychological consequences. Our study aimed at assessing (1) psychological status, (2) challenges of distance teaching, and (3) coping activities and pandemic-related concerns among university teachers in Jordan in the midst of COVID-19-related quarantine and control measures. We conducted a cross-sectional study using an anonymous online survey. The measure of psychological distress was obtained using a validated Arabic version of the Kessler Distress Scale (K10). Other information collected included sociodemographic profile, methods used to handle distress, motivation to participate in distance teaching, and challenges of distance teaching as well as the most worrisome issues during this pandemic. Three hundred eighty-two university teachers returned completed surveys. Results of K10 showed that 31.4% of respondents had severe distress and 38.2% had mild to moderate distress. Whereas gender was not associated with distress severity, age had a weak negative correlation (Rho = -0.19, P < 0.0001). Interestingly, most teachers had moderate to high motivation for distance teaching. Engagement with family was the most reported self-coping activity. More than half of the participants were most concerned and fearful about SARS-CoV-2 infection. In conclusion, university teachers have shown to exhibit various levels of psychological distress and challenges during the implementation of precautionary national measures in the battle against COVID-19 in Jordan.

Publication Type

  Journal article.

<104>

Accession Number

  20203580362

Author

  Maharlouei, N.; Asadi, N.; Bazrafshan, K.; Roozmeh, S.; Rezaianzadeh, A.; Zahed-Roozegar, M. H.; Shaygani, F.; Kharmandar, A.; Honarvar, B.; Hemyari, C.; Omidifar, N.; Zare, M.; Lankarani, K. B.

Title

  Knowledge and attitude regarding COVID-19 among pregnant women in southwestern Iran in the early period of its outbreak: a cross-sectional study.

Source

  American Journal of Tropical Medicine and Hygiene; 2020. 103(6):2368-2375. 25 ref.

Publisher

  American Society of Tropical Medicine and Hygiene

Location of Publisher

  Deerfield

Country of Publication

  USA

Abstract

  Both knowledge and attitude can play key roles in the prevention of novel COVID-19. This cross-sectional study was conducted on a statistical sample of pregnant women in southwestern Iran between March and April 2020 to evaluate their knowledge and attitude toward this condition. So, pregnant mothers registered in antenatal clinics affiliated to Shiraz University of Medical Sciences were called and asked to fill in a three-part online questionnaire including sociodemographic characteristics, obstetric/medical history, and knowledge/attitude toward COVID-19. P-values < 0.05 were considered statistically significant. The mean score of knowledge among 540 respondents was 34 (+or-4.1) out of 43. Also, 44.3% answered more than 80% of the items correctly. Higher knowledge scores were accordingly associated with marriage duration, area of residence, health insurance coverage, socioeconomic status (SES), and self-rated health status. However, a strong relationship was found between knowledge, SES, and health insurance coverage with reference to multivariate analysis results. Moreover, majority of the pregnant women and their households expressed their concern about using preventive measures against COVID-19. Although most respondents were moderately worried about becoming infected with COVID-19, 264 (48.9%) cases reported that they were very much anxious about their newborns being infected with COVID-19 and 388 (71.9%) individuals asserted that they were worried about their mortality due to this infection. Besides, most mothers maintained that they had some degrees of rumination, which could interfere with their routine daily chores. Hence, health policy-makers should pay much focus on educating pregnant mothers to help them prevent mental exhaustion.

Publication Type

Journal article.

<105>

Accession Number

Author

Alberca, R. W.; Yendo, T. M.; Ramos, Y. A. L.; Fernandes, I. G.; Oliveira, L. de M.; Teixeira, F. M. E.; Beserra, D. R.; Oliveira, E. A. de; Gozzi-Silva, S. C.; Andrade, M. M. de S.; Branco, A. C. C. C.; Pietrobon, A. J.; Pereira, N. Z.; Brito, C. A. de; Orfali, R. L.; Aoki, V.; Duarte, A. J. da S.; Benard, G.; Sato, M. N.

Title

COVID-19 and Chagas disease in two coinfected patients.

Source

Publisher

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

American trypanosomiasis, also named Chagas disease (CD), is an anthropozoonosis caused by the protozoan parasite Trypanosoma cruzi. The disease affects millions of people worldwide, leading yearly to approximately 50,000 deaths. COVID-19, generated by SARS-CoV-2, can lead to lymphopenia and death. We hereby describe the first report of two patients with CD and COVID-19 coinfection, from hospitalization until patients' death.

Publication Type

Journal article.

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104

<106>

Accession Number

  20203580330

Author

  Juma, C. A.; Mushabaa, N. K.; Salam, F. A.; Ahmadi, A.; Lucero-Prisno, D. E., III

Title

  COVID-19: the current situation in the Democratic Republic of Congo.

Source

  American Journal of Tropical Medicine and Hygiene; 2020. 103(6):2168-2170. 17 ref.

Publisher

  American Society of Tropical Medicine and Hygiene

Location of Publisher

  Deerfield

Country of Publication

  USA

Abstract

  COVID-19 is a highly contagious disease that has affected all African countries including the Democratic Republic of Congo (DRC). Formidable challenges limit precautionary measures which were instituted by the government to curb the pandemic. Insufficient COVID-19 testing laboratories, limited medical and personal protective equipment, and an inadequate number of health workers leave the country ill-equipped in the fight against the pandemic. Lack of assistance from the government to those who lost their jobs due to lockdown forced these individuals to go outside to find provisions, thus increasing the spread of the virus. Moreover, the fragile healthcare system is overburdened by civil conflicts and other epidemics and endemics amid the COVID-19 pandemic. The conflicts have led to thousands of deaths and hundreds of thousands of displacements and deprived many people of basic health services. The 11th outbreak of Ebola has been increasing at an alarming pace, and it is expected to soar because of a shortfall of funds and insufficient numbers of health workers. The DRC with the cooperation of regional powers needs to address these challenges in a manner similar to that used in the previous Ebola epidemics. Moreover, the government should have a balance in shifting the available resources between COVID-19 and other diseases. Until a vaccine is available, the DRC needs to be prudent when lifting restrictions to prevent explosion of new cases.

Publication Type

  Journal article.

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105

<107>

Accession Number

  20203580329

Author

  Mallhi, T. H.; Khan, Y. H.; Azreen Syazril Adnan

Title

  Stratification of acute kidney injury in COVID-19.

Source

  American Journal of Tropical Medicine and Hygiene; 2020. 103(6):2164-2167. 26 ref.

Publisher

  American Society of Tropical Medicine and Hygiene

Location of Publisher

  Deerfield

Country of Publication

  USA

Abstract

  Despite myriad improvements in the care of COVID-19 patients, atypical manifestations are least appreciated during the current pandemic. Because COVID-19 is primarily manifesting as an acute respiratory illness with interstitial and alveolar pneumonia, the possibility of viral invasions into the other organs cannot be disregarded. Acute kidney injury (AKI) has been associated with various viral infections including dengue, chikungunya, Zika, and HIV. The prevalence and risks of AKI during the course of COVID-19 have been described in few studies. However, the existing literature demonstrate great disparity across findings amid variations in methodology and population. This article underscores the propensity of AKI among COVID-19 patients, limitations of the exiting evidence, and importance of timely identification during the case management. The prevalence of AKI is variable across the studies ranging from 4.7% to 81%. Evidence suggest old age, comorbidities, ventilator support, use of vasopressors, black race, severe infection, and elevated levels of baseline serum creatinine and d-dimers are independent risk factors of COVID-19 associated with AKI. COVID-19 patients with AKI also showed unsatisfactory renal recovery and higher mortality rate as compared with patients without AKI. These findings underscore that AKI frequently occurs during the course of COVID-19 infection and requires early stratification and management.

Publication Type

  Journal article.

<108>

Accession Number

20203580189

Author

Mulugeta Kiros; Henok Andualem; Teklehaimanot Kiros; Wasihun Hailemichael; Sisay Getu; Alene Geteneh; Derbie Alemu; Woldaregay Erku Abegaz

Title

COVID-19 pandemic: current knowledge about the role of pets and other animals in disease transmission.

Source

Virology Journal; 2020. 17(143). 65 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

On 11 March 2020, the World Health Organization (WHO) announced Corona Virus Disease (COVID-19), a disease caused by a pathogen called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), a pandemic. This ongoing pandemic has now been reported in 215 countries with more than 23 million confirmed cases and more than 803 thousand deaths worldwide as of August 22, 2020. Although efforts are undergoing, there is no approved vaccine or any specific antiretroviral drug to treat COVID-19 so far. It is now known that SARS-CoV-2 can affect not only humans but also pets and other domestic and wild animals, making it a one health global problem. Several published scientific evidence has shown that bats are the initial reservoir hosts of SARS-CoV-2, and pangolins are suggested as an intermediate hosts. So far, little is known concerning the role of pets and other animals in the transmission of COVID- 19. Therefore, updated knowledge about the potential role of pets in the current outbreak will be of paramount importance for effective prevention and control of the disease. This review summarized the current evidence about the role of pets and other animals in the transmission of COVID-19.

Publication Type

Journal article.

<109>

Accession Number

20203580169

Author

 Souza, M. K. B. de

Title

 Social distancing measures and demands for the reorganization of hemotherapy services in the context of COVID-19.

Source

 Ciencia & Saude Coletiva; 2020. 25(12):4969-4978. 20 ref.

Publisher

 Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

 Rio de Janeiro

Country of Publication

 Brazil

Abstract

  The article aims to discuss the consequences of social distancing measures on the availability of blood and organization of blood therapy services at the beginning of the Covid-19 pandemic in Brazil. News published in April 2020 on the websites of the country's state Blood Service Networks were consulted and organized in an Excel spreadsheet, presented in summary charts, and descriptions of results were prepared. A critical situation of blood supply, especially of some blood types, has been observed in many states. This situation is influenced by the circulation of the new coronavirus. The adoption of social distancing measures associated with unchanged transfusion demands for outpatient, urgency and emergency care required the implementation of strategies and actions for the reorganization of the services. Protection measures were incorporated, flows were changed and new routines were established. This study shows the extent to which the epidemiological situation of Covid-19 and the necessary measures for its control influenced the stocks and availability of blood. Changes in the organization of blood therapy services were fundamental in order to ensure protection, mitigate the risks of spreading the virus, and ensure the blood supply to meet the needs of the health system.

Publication Type

 Journal article.

<110>

Accession Number

 20203580168

Author

  Bezerra, E. C. D.; Santos, P. S. dos; Lisbinski, F. C.; Dias, L. C.

Title

  Spatial analysis of Brazil's COVID-19 response capacity: a proposal for a Healthcare Infrastructure Index.

Source

  Ciencia & Saude Coletiva; 2020. 25(12):4957-4967. 28 ref.

Publisher

  Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

  Rio de Janeiro

Country of Publication

  Brazil

Abstract

  One of the concerns linked to the COVID-19 pandemic is the capacity of health systems to respond to the demand for care for people with the disease. The objective of this study was to create a COVID-19 response Healthcare Infrastructure Index (HII), calculate the index for each state in Brazil, and determine its spatial distribution within and across regions. The HII was constructed using principal component factor analysis. The adequacy of the statistical model was tested using the Kaiser-Meyer-Olkin test and Bartlett's test of sphericity. The spatial distribution of the HII was analyzed using exploratory spatial data analysis. The data were obtained from DATASUS, the Federal Nursing Council, Ministry of Health, Government Procurement Portal, and the Transparency Portal. The nine states in the country's North and Northeast regions showed the lowest indices, while the five states from the Southeast and South regions showed the highest indices. Low-low clusters were observed in Amazonas and Para and high-high clusters were found in Minas Gerais, Rio de Janeiro, Sao Paulo, and Parana.

Publication Type

  Journal article.

<111>

Accession Number

  20203580167

Author

  Gurgel, A. do M.; Santos, C. C. S. dos; Alves, K. P. de S.; Araujo, J. M. de; Leal, V. S.

Title

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109

Government strategies to ensure the human right to adequate and healthy food facing the COVID-19 pandemic in Brazil.

Source

Ciencia & Saude Coletiva; 2020. 25(12):4945-4956. 50 ref.

Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The Covid-19 pandemic revealed a concrete and immediate threat to food and nutrition security (FNS), especially for vulnerable groups. This study aimed to identify government strategies implemented in Brazil to provide the Human Right to Adequate and Healthy Food in high social vulnerability contexts during the Covid-19 pandemic. A cross-sectional study was carried out, with analysis of official documents published between March 20 and July 30, 2020, by the Federal Government, Federal District, Brazilian states, and capitals, focusing on measures to ensure availability and physical or financial access to food. Strategies implemented mainly involve food distribution and minimum income assurance. The following were implemented: Basic Emergency Income (Federal Government); Food Acquisition Program (PAA), and emergency financial aid (states); emergency food donation programs (states and municipalities). Existing measures were adapted to the pandemic, such as the National School Food Program (PNAE), the National Food Acquisition Program (PAA), and the distribution of food and staple food baskets. While essential, these strategies have limited scope and are insufficient to ensure FNS.

Publication Type

Journal article.

<112>

Accession Number

20203580152

Author

Buss, P. M.; Hartz, Z. M. de A.; Pinto, L. F.; Rocha, C. M. F.

Title

Health promotion and quality of life: a historical perspective of the last two 40 years (1980-2020).

Source

Ciencia & Saude Coletiva; 2020. 25(12):4723-4735. 45 ref.

Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

This article updates the previous text of the main author published in 2000, revisiting the scientific evidence that reaffirms the contribution of health to the quality of life of individuals and populations. More than the access to health services of any quality, it is necessary to face determinants of health in its entirety, which requires healthy public policies, an effective intersectoral articulation of public power and mobilization of the population. The authors revisit the emergence and development of health promotion, focusing on the analysis of the most promising health strategies for the increase in quality of life, especially in societies with high social and health inequalities, as in the case of Brazil, reinforced by the recent pandemic of COVID-19. Such strategies were concretized on healthy municipalities and intersectoral actions, in health and in all policies which confront social determinants, through their own foundations and practices that are closely related to innovations in public management for integrated and sustainable local development, in view of the 2030 Agenda and its Sustainable Development Objectives (SDG).

Publication Type

Journal article.

<113>

Accession Number

20203580094

Author

Gaeckle, N. T.; Lee JiHyeon; Park YenSil; Kreykes, G.; Evans, M. D.; Hogan, C. J., Jr.

Title

Aerosol generation from the respiratory tract with various modes of oxygen delivery.

Source

American Journal of Respiratory and Critical Care Medicine; 2020. 202(8):1125-1132. 28 ref.

Publisher

American Thoracic Society

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111

Location of Publisher

New York

Country of Publication

USA

Abstract

Rationale: Aerosol generation with modes of oxygen therapy such as high-flow nasal cannula and noninvasive positive-pressure ventilation is a concern for healthcare workers during the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic. The amount of aerosol generation from the respiratory tract with these various oxygen modalities is unknown. Objectives: To measure the size and number concentration of particles and droplets generated from the respiratory tract of humans exposed to various oxygen delivery modalities. Methods: Ten healthy participants with no active pulmonary disease were enrolled. Oxygen modalities tested included nonhumidified nasal cannula, face mask, heated and humidified high-flow nasal cannula, and noninvasive positive-pressure ventilation. Aerosol generation was measured with each oxygen mode while participants performed maneuvers of normal breathing, talking, deep breathing, and coughing. Testing was conducted in a negative-pressure room. Particles with a diameter between 0.37 and 20 m were measured using an aerodynamic particle spectrometer. Measurements and Main Results: Median particle concentration ranged from 0.041 to 0.168 particles/cm3. Median diameter ranged from 1.01 to 1.53 m. Cough significantly increased the number of particles measured. Measured aerosol concentration did not significantly increase with the use of either humidified high-flow nasal cannula or noninvasive positive-pressure ventilation. This was the case during normal breathing, talking, deep breathing, and coughing. Conclusions: Oxygen delivery modalities of humidified high-flow nasal cannula and noninvasive positive-pressure ventilation do not increase aerosol generation from the respiratory tract in healthy human participants with no active pulmonary disease measured in a negative-pressure room.

Publication Type

Journal article.

<114>

Accession Number

20203580064

Author

Mousavi, S. Z.; Rahmanian, M.; Sami, A.

Title

A connectivity map-based drug repurposing study and integrative analysis of transcriptomic profiling of SARS-CoV-2 infection.

Source

Infection, Genetics and Evolution; 2020. 86.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Aims: The recent outbreak of COVID-19 has become a global health concern. There are currently no effective treatment strategies and vaccines for the treatment or prevention of this fatal disease. The current study aims to determine promising treatment options for the COVID-19 through a computational drug repurposing approach. Materials and methods: In this study, we focus on differentially expressed genes (DEGs), detected in SARS-CoV-2 infected cell lines including "the primary human lung epithelial cell line NHBE" and "the transformed lung alveolar cell line A549". Next, the identified DEGs are used in the connectivity map (CMap) analysis to identify similarly acting therapeutic candidates. Furthermore, to interpret lists of DEGs, pathway enrichment and protein network analysis are performed. Genes are categorized into easily interpretable pathways based on their biological functions, and overrepresentation of each pathway is tested in comparison to what is expected randomly. Key findings: The results suggest the effectiveness of lansoprazole, folic acid, sulfamonomethoxine, tolnaftate, diclofenamide, halcinonide, saquinavir, metronidazole, ebselen, lidocaine and benzocaine, histone deacetylase (HDAC) inhibitors, heat shock protein 90 (HSP90) inhibitors, and many other clinically approved drugs as potent drugs against COVID-19 outbreak. Significance: Making new drugs remain a lengthy process, so the drug repurposing approach provides an insight into the therapeutics that might be helpful in this pandemic. In this study, pathway enrichment and protein network analysis are also performed, and the effectiveness of some drugs obtained from the CMap analysis has been investigated according to previous researches.

Publication Type

Journal article.

<115>

Accession Number

20203579881

Author

Asraf Hussain; Tripathi Garima; Singh, B. M.; Ramji Ram; Tripti, R. P.

Title

Knowledge, attitudes, and practices towards COVID-19 among Nepalese Residents: a quick online cross-sectional survey.

Source

  Asian Journal of Medical Sciences; 2020. 11(3):6-11. 11 ref.

Publisher

  Manipal College of Medical Sciences

Location of Publisher

  Pokhara

Country of Publication

  Nepal

Abstract

  Background: Corona virus disease 2019 (COVID-19) is a highly infectious disease. It is caused by a novel virus belonging to a family known as corona virus. This virus was first identified in the month December 2019 in Wuhan, China Hubei province. Since its first identification it has spread globally. It was declared a public health emergency of international concern on January 30, 2020 by WHO. Despite all efforts the virus continues to spread and WHO declared it a pandemic on March 11, 2020. In Nepal the first case was tested positive on 23rd January and ever since numbers are increasing as days passed by. Residents of the country are the most important stakeholders to control the spread of such viruses. Nepal is a land locked country situated between India and China and is one of the vulnerable areas among SAARC nations. In spite of being such a vulnerable nation there was a lack of previous studies detecting the degree of awareness among Nepalese residents towards COVID 19. Aims and Objectives: This study aims to assess the current level of awareness towards COVID 19 among Nepalese residents and to analyze their attitudes and practices towards COVID 19 which is very important for people's active participation to control this pandemic. In this study we investigated Nepalese residents KAP towards COVID-19. Material and Methods: This is cross sectional online study. A self-developed online questionnaire was completed by the participants. There were a total 29 questions among which 15 questions assessed knowledge, 6 questions assessed attitude and remaining 8 questions assessed practice. Results: Among the respondents (n=760), 65.7% were male, 50.3% were healthcare workers, overall range of correct answers for knowledge questionnaire was 60.0-98.7%, that for attitude was 77.9-96.4% and for practice was 78.2-95.0%. Participants with a medical degree had statistically significant better practice against COVID 19 compared with the general population. Conclusion: Findings of this study show that knowledge among people of Nepal about COVID 19 is satisfactory. Yet a significant number of participants are lacking confidence when compared to other countries. Better practice against COVID requires a sense of responsibility, though the respondents with medical background had better sense of act against COVID prevention practice.

Publication Type

  Journal article.

<116>

Accession Number

20203579874

Author

Saksham Garg; Arpita Roy

Title

In silico analysis of selected alkaloids against main protease (Mpro) of SARS-CoV-2.

Source

Chemico-Biological Interactions; 2020. 332. 35 ref.

Publisher

Elsevier Science Ireland Ltd.

Location of Publisher

Shannon

Country of Publication

Irish Republic

Abstract

In the present situation, COVID-19 has become the global health concern due to its high contagious nature. It initially appeared in December 2019 in Wuhan, China and now affected more than 190 countries. As of now preventive measures are the sole solution to stop this disease for further transmission from person to person transmissions as there is no effective treatment or vaccine available to date. Research and development of new molecule is a laborious process; therefore, drug repurposing can be an alternative solution that involves the identification of potential compounds from the already available data. Alkaloids are potential source of therapeutic agents which might be able to treat novel COVID-19. Therefore, in the present study, twenty potential alkaloid molecules that possess antiviral activity against different viral diseases have taken into consideration and scrutinized using Lipinski's rule. Then out of twenty compounds seventeen were further selected for docking study. Docking study was performed using Autodock software and the best four molecule which provides maximum negative binding energy was selected for further analysis. Two alkaloids namely thalimonine and sophaline D showed potential activity to inhibit the Mpro but to confirm the claim further in-vitro studies are required.

Publication Type

Journal article.

<117>

Accession Number

20203579576

Author

Yayla, B. C. C.; Ozsurekci, Y.; Aykac, K.; Oygar, P. D.; Gurlevik, S. L.; Ilbay, S.; Kukul, M. G.; Karahan, S.; Cengiz, A. B.; Ceyhan, M.

Title

Characteristics and management of children with COVID-19 in Turkey.

Source

Balkan Medical Journal; 2020. 37(6):341-347. 28 ref.

Publisher

Galenos Yayinevi

Location of Publisher

Istanbul

Country of Publication

Turkey

Abstract

Aims: Limited data about disease management strategies are available for pediatric patients with coronavirus disease-2019, particularly in Turkey. This study aimed to share the data on patients aged under 18 years in our country to be beneficial for understanding the disease course in children. Methods: A retrospective review of the medical records of pediatric patients aged under 18 years who were confirmed as coronavirus disease-2019 between March 11, and June 23, 2020, and were admitted to our hospitals was conducted. Results: A total of 220 pediatric patients with coronavirus disease-2019 were evaluated, of which 48.2% were boys, with a median age of 10 years, and 9.5% had underlying diseases. Patients were classified according to severity, with the percentages of asymptomatic, mild, moderate, and critical/severe cases determined to be 25.5%, 45%, 26.8%, and 2.7%, respectively. Extracorporeal membrane oxygenation was required in two patients (0.9%) and mechanical ventilation in three (1.4%). Targeted therapies were used in six patients (2.7%), with hydroxychloroquine being the most commonly used agent either alone (one patient) or in combination with favipiravir (five patients). Two patients (0.9%) died, and nine (4.1%) were still hospitalized during the study period. Conclusion: Although the disease course of coronavirus disease-2019 seems to be mild in children, critical illness is significant, and the treatment strategy primarily should consist of supportive care according to our preliminary observations.

Publication Type

Journal article.

<118>

Accession Number

20203579378

Author

Chen YiXin [Chen, T. Y. X.]; Farghaly, S.; Cham, S.; Tatem, L. L.; Sin, J. H.; Rauda, R.; Ribisi, M.; Sumrani, N.

Title

COVID-19 pneumonia in kidney transplant recipients: focus on immunosuppression management.

Source

Transplant Infectious Disease; 2020. 22(5). 28 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

Abstract

Background: The coronavirus disease of 2019, also known as COVID-19, has been declared a global pandemic. Significant controversies exist regarding treatment modalities for this novel disease, especially in immunocompromised patients. Experience with management of COVID-19 in kidney transplant recipients is scarce; effects of this virus on immunosuppressed individuals are not well understood. Methods: We identified 30 renal transplant recipients with confirmed COVID-19 pneumonia who were admitted to inpatient between March 2020 and April 2020. All patients received a 5-day course of hydroxychloroquine and azithromycin; half of the patients received methylprednisolone. During hospitalization, calcineurin inhibitors and antimetabolites were held; prednisone was continued. Results: Clinical presentation of flu-like symptoms was similar to those in the general population. Hyponatremia, lymphopenia, acute kidney injury, and elevated inflammatory markers were common. Over the course of follow-up, 23 have been discharged home with a functioning allograft and in stable condition; 4 experienced acute kidney injury requiring renal replacement therapy; 7 patients were intubated, and 6 expired. The mortality rate in our cohort was 20%. Conclusion: Our findings described the characteristics and outcomes of this highly fatal illness in a multi-ethnic kidney transplant cohort, with insights on immunosuppression management that could further our understanding of this unique disease in immunocompromised populations.

Publication Type

Journal article.

<119>

Accession Number

20203578961

Author

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117

Xiao ChunXiu; Lin YanJuan; Lin RenQin; Liu AnNa; Zhong GuiQin; Lan CaiFeng

Title

Effects of progressive muscle relaxation training on negative emotions and sleep quality in COVID-19 patients: a clinical observational study.

Source

Medicine (Baltimore); 2020. 99(47). 23 ref.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

Hagerstown

Country of Publication

USA

Abstract

This study investigates the effect of progressive muscle relaxation training on negative mood and sleep quality in Coronavirus Pneumonia (COVID-19) patients. COVID-19 is an emerging infectious disease, and there is still uncertainty about when the outbreak will be contained and the effectiveness of treatments. Considering that this disease is highly contagious, patients need to be treated in isolation. This may lead to psychological symptoms such as anxiety and depression, and even sleep problems. This study is a clinical observation study. Participants included 79 COVID-19 patients admitted to a designated hospital for COVID-19 patients in Wuhan from February to March, 2020. Patients were selected and assigned to the control group and the observation group according to their wishes, with 40 and 39 cases in each group, respectively. The control group received routine treatment and nursing, and the observation group received progressive muscle relaxation training, in addition to the routine treatment and nursing. We compared scores of the Pittsburgh Sleep Quality Index Scale (PSQI), the Generalized Anxiety Disorder (GAD-7), and the Patient Health Questionnaire (PHQ-9) before and after the intervention. There was no significant difference in PSQI, GAD-7, and PHQ-9 scores between the control group and the observation group before the intervention (P > .05). After the intervention, the difference in scores of PSQI, GAD-7, and PHQ-9 in the 2 groups were statistically significant (P < .05). Progressive muscle relaxation training can significantly reduce anxiety and depression and improve sleep quality in COVID-19 patients during isolation treatment. Progressive muscle relaxation training was shown to improve the treatment effect of patients and is worthy of clinical promotion.

Publication Type

Journal article.

<120>

Accession Number

20203578939

Author

  Saxena, G.; Garg, M.

Title

  Comparison of psychological impact of COVID-19 pandemic among frontline healthcare professionals in a tertiary care hospital of north India.

Source

  Annals of International Medical and Dental Research; 2020. 6(6). 29 ref.

Publisher

  Society for Health Care & Research Development

Location of Publisher

  Moradabad

Country of Publication

  India

Abstract

  Background: This study aims to assess the level of worry, psychological distress, perception regarding quality of information, and influence of these factors on the behaviour of Healthcare professionals (HCPs) during Covid-19 pandemic outbreak in India. Methods: Medics and nurses were distributed self-reporting questionnaires through paper and/or online mode. This included a survey developed to understand various aspects of worry in HCPs, quality of information received, and intended attitudes, along with a GHQ-28 for assessing psychological distress. Results: Moderate level of psychological distress was found in 28% of total respondents. Overall, 58% reported to be worried about Covid-19, with nurses worrying more than medics, mainly about the fear of infecting loved-ones. High level of satisfaction with the quality of information received about illness was noted with strong desire for additional information. Despite worrying, very few reported changes in their behaviour, however, psychological support was considered important by HCPs to deal with the stress. Conclusion: Covid-19 has resulted in high distress among HCPs. To manage this level of anxiety and prevent its long-term impact on wellbeing, psychological interventions should be inculcated in pandemic preparedness strategies.

Publication Type

  Journal article.

<121>

Accession Number

  20203578924

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119

Author

Zuckerman, A. D.; Patel, P. C.; Sullivan, M.; Potts, A.; Knostman, M.; Humphreys, E.; O'Neal, M.; Bryant, A.; Torr, D. K.; Lobo, B.; Peek, G.; Kelley, T.; Manfred, J.; Tomichek, J.; Crothers, G.; Catlin, R.; Brumagin, H. E.; Hughes, L.; Hayman, J.

Title

From natural disaster to pandemic: a health-system pharmacy rises to the challenge.

Source

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Purpose: This report describes a health-system pharmacy's response to a natural disaster while staff members simultaneously prepared for the coronavirus disease 2019 (COVID-19) pandemic. By detailing our experience, we hope to help other institutions that are current facing or could encounter similar crises. Summary: In early March 2020, a tornado destroyed the health system's warehouse for storage of most clinical supplies, including personal protective equipment and fluids. The pharmacy purchasing team collaborated with suppliers and manufacturers to recover losses and establish alternative storage areas. Days later, the pharmacy department was forced to address the impending COVID-19 pandemic. Key elements of the COVID-19 response included reducing the potential for virus exposure for patients and staff; overcoming challenges in sourcing of staff, personal protective equipment, and medications; and changing care delivery practices to maintain high-quality patient care while maximizing social distancing. The pharmacy department also created distance learning opportunities for 70 pharmacy students on rotations. After an initial plan, ongoing needs include adjustment in patient care activities if significant staff losses occur, when and how to resume clinical activities, and how to best utilize the resources accumulated. Elements of practice changes implemented to reduce COVID-19 threats to patients and pharmacy personnel have proven beneficial and will be further evaluated for potential continuation. Conclusion: The pharmacy department's efforts to respond to a natural disaster and unprecedented pandemic have proven successful to this point and have illuminated several lessons, including the necessity of cohesive department communication, staff flexibility, prioritization of teamwork, and external collaboration.

Publication Type

Journal article.

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120

<122>

Accession Number

  20203578904

Author

  Abraham, D. A.; Vijayakumar, T. M.; Rajanandh, M. G.

Title

  Challenges of non-COVID-19 patients with chronic illness during the pandemic.

Source

  Journal of Research in Pharmacy Practice; 2020. 9(3):155-157. 7 ref.

Publisher

  Medknow Publications

Location of Publisher

  Mumbai

Country of Publication

  India

Abstract

  Challenges faced by non-COVID-19 patients with chronic illness are limitless during the lockdown period. These patients are mostly immunocompromised and vulnerable to infection. The worst affected would be chronic disease patients with lower household income. Patients' fear of approaching medical facilities and also travel restrictions limit the patients to reach the healthcare team, and either of this leads to poor health outcome. Frequent communication with chronic disease patients by healthcare professionals is a key to encourage the patients to be adherent to the medications and manage their disease conditions.

Publication Type

  Journal article.

<123>

Accession Number

  20203578882

Author

  Pan HaiTing; Xin Yan; Peng HongTao; Wang Li

Title

Exploration of multi teaching methods reform in medical immunology online course education. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2232-2240. 14 ref.

Publisher

Editorial Board of Chinese Journal of Immunology

Location of Publisher

Changchun

Country of Publication

China

Abstract

Impacted by the COVID-19 pandemic, Chinese universities postponed reopening and has relied on internet platforms to provide teaching courses. Faced with the teaching of Medical Immunology under this special circumstance, the Teaching and Research Department of Immunology at Basic Medical School has used a variety of pedagogical methodologies and resources to fully meet the regular curriculum schedule for medical students of clinic-related majors. The department shifted to online courses and remote guidance from the traditional face-to-face pedagogy, in an attempt to meet the students' need to continue learning in spite of suspended classes.

Publication Type

Journal article.

<124>

Accession Number

20203578878

Author

Wang Ning; Jiang FengLiang; Guo Na; Hu ZhiFang; Lyu MingHua; Chen LiHua

Title

Application research in online teaching of "medical immunology" based on "duifene" platform. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2218-2222. 8 ref.

Publisher

Editorial Board of Chinese Journal of Immunology

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122

Location of Publisher

Changchun

Country of Publication

China

Abstract

Online teaching is an important way to adapt to the development of medical education in the information age. Since this teaching method is not limited by the time and the space, it plays an important role in school teaching during the COVID-19 epidemic. In order to give full play to the advantages of online teaching and deep integration with traditional classroom teaching ideas, we explored the use of the "presentation assimilation discussion" teaching concept in the medical immunology theoretical course teaching process and applied the "Duifene" platform for the first time. We use this platform for the entire online teaching, student management, curriculum design, teaching organization, formative evaluation and other practices. This exploration promoted the reform of medical immunology teaching and laid a good foundation for improving the quality of online teaching courses.

Publication Type

Journal article.

<125>

Accession Number

20203578875

Author

Yu XiaoLi; Shao LiJun; Li WanWei; Niu GuoYu; Chen JunHao

Title

Study of online teaching on experimental immunology during COVID-19 epidemic. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2208-2211. 6 ref.

Publisher

Editorial Board of Chinese Journal of Immunology

Location of Publisher

Changchun

Country of Publication

China

Abstract

Objective: Under the COVID-19 epidemic, the Ministry of Education put forward the guidance of "suspended class, ongoing teaching and learning", and universities actively adopted the online teaching mode. This study focuses on the online teaching mode of " Experimental Immunology" theory course. It includes four aspects based on the overall goal of students ' core literacy cultivation:building the online teaching mode, strengthening the teaching norms to ensure the quality of teaching, cultivating the students ' autonomous learning ability and the ideological penetration in online teaching. This study will provide the basis for college teachers to properly use the online resources to develop online teaching.

Publication Type

Journal article.

<126>

Accession Number

20203578872

Author

Liu BiYuan; Zou Yan; Wu CanRong; Shen KeJia; Chen ChaoLong

Title

Online teaching practice and experience of Nutritional immunology public elective course under novel coronavirus pneumonia outbreak. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2196-2199. 6 ref.

Publisher

Editorial Board of Chinese Journal of Immunology

Location of Publisher

Changchun

Country of Publication

China

Abstract

Nutritional immunology is a public elective course for entire undergraduate in our school, whose aim is spread of immunology and nutrition knowledge to improve health quality and scientific literacy of students. Due to cause of novel coronavirus pneumonia in the first half of this year, online teaching had to be used to finish teaching task of nutritional immunology public course. Preliminary summary and thinking of online teaching was made from teaching design and preparation, specific implementation, and feedback of

teaching effect in nutritional immunology course, which would be to provide help for carrying out network teaching better and to improve effect of public course teaching.

Publication Type

Journal article.

<127>

Accession Number

20203578870

Author

Guo Na; Gao XingChun; Jiang PengTao; Wang Ning; Hu ZhiFang; Li AiLian; Jiang FengLiang

Title

Practice and exploration of "dual platform " network teaching of medical immunology in context of COVID-19 epidemic. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2189-2192. 9 ref.

Publisher

Editorial Board of Chinese Journal of Immunology

Location of Publisher

Changchun

Country of Publication

China

Abstract

Objective: Network teaching has been used for a long time, but it is mostly used as an auxiliary way of adult education or traditional teaching. In context of COVID-19 epidemic, Ministry of Education called for "Suspending classes without stopping learning", which promoted online teaching to mainstream position and completely replaced traditional offline teaching mode. Medical immunology, as a course with quick knowledge update and many difficult problems, is undoubtedly challenging quality of teaching under premise that even traditional offline teaching cannot guarantee students' full understanding. This paper mainly introduces research group practice process in network teaching of Medical Immunology course in undergraduate study, in order to fully and reasonably excavate advantages of network teaching and provide some reference for network teaching of Medical Immunology.

Publication Type

Journal article.

<128>

Accession Number

  20203578868

Author

  Yang Qiong; Zhao ZhiBin; Gao CaiYue; Yang ShuHan; Li Ling; Li Fang; Lian ZheXiong

Title

  Teaching explorations in medical immunology online education during COVID-19 pandemic. [Chinese]

Source

  Chinese Journal of Immunology; 2020. 36(18):2182-2185. 7 ref.

Publisher

  Editorial Board of Chinese Journal of Immunology

Location of Publisher

  Changchun

Country of Publication

  China

Abstract

  As a compulsory course for medical undergraduates, "Medical Immunology" is regarded with strong systematic and theoretical features. Under the circumstances of "classes suspended but learning continues" during COVID-19 pandemic, the teaching team of "Medical Immunology" has organized a team integrated with teachers of basic and clinical medicine, based on the similarities and differences of online and offline teaching. We mainly adopted with PPT recording mode, supplemented with MOOC online. Besides, the education of ideological and political elements has been merged to the course teaching and we evaluated the teaching efficiency by questionnaire investigation. This program which treats students as the center, is of great help to the future blended learning mode of medical immunology.

Publication Type

  Journal article.

<129>

Accession Number

  20203578867

Author

  Yang Di; Wang ShuFeng; Xu GuiLian; Wu YuZhang; Tian Yi

Title

  Thoughts and practice of introducing immunodiagnosis, immunoprophylaxis and immunotherapy of COVID-19 into medical immunology online teaching. [Chinese]

Source

  Chinese Journal of Immunology; 2020. 36(18):2178-2181. 17 ref.

Publisher

  Editorial Board of Chinese Journal of Immunology

Location of Publisher

  Changchun

Country of Publication

  China

Abstract

  The outbreak of COVID-19 has made us recognize the importance of immunology. In combination with the research of immunology in the field of COVID-19, we intend to integrate immunodiagnosis, immunoprophylaxis and immunotherapy into the online teaching of Medical Immunology and discuss latest progress of COVID-19. Its purpose is to enhance the practicability and pertinence of teaching contents, and improve students' application ability and transformation ability, so that they can apply their knowledge to the needs of disease prevention and treatment.

Publication Type

  Journal article.

<130>

Accession Number

  20203578804

Author

  Eick, G. N.; Madimenos, F. C.; Cepon-Robins, T. J.; Devlin, M. J.; Kowal, P.; Sugiyama, L. S.; Snodgrass, J. J.

Title

Validation of an enzyme-linked immunoassay assay for osteocalcin, a marker of bone formation, in dried blood spots. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

American Journal of Human Biology; 2020. 32(5). 2 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Objectives: Investigating factors that contribute to bone loss and accretion across populations in remote settings is challenging, particularly where diagnostic tools are scarce. To mitigate this challenge, we describe validation of a commercial ELISA assay to measure osteocalcin, a biomarker of bone formation, from dried blood spots (DBS). Methods: We validated the Osteocalcin Human SimpleStep ELISA kit from Abcam (ab1951214) using 158 matched plasma and DBS samples. Passing-Bablok regression analysis assessed the relationships between plasma and DBS osteocalcin concentrations. Dilutional linearity and spike and recovery experiments determined if the DBS matrix interfered with osteocalcin measurement, and intra- and inter-assay coefficients of variation (CVs) were calculated. Limit of detection, analyte stability, and specific forms of osteocalcin measured by the kit were also investigated. Results: Mean plasma osteocalcin value was 218.2 ng/mL (range 64.6-618.1 ng/mL). Linear relationships existed between plasma and DBS concentrations of osteocalcin, with no apparent bias in plasma vs DBS concentrations. There was no apparent interference of the DBS matrix with measurement of osteocalcin in DBS. Intra-assay CV for DBS was ~8%, while average inter-assay CV was 14.8%. Limit of detection was 0.34 ng/mL. Osteocalcin concentrations were stable in DBS stored at -28 degrees C and room temperature, but not those stored at 37 degrees C. This ELISA kit detects total osteocalcin. Conclusions: Osteocalcin, a bone formation biomarker, can be measured from DBS. Combined with a previously validated DBS assay for TRACP-5b, a bone resorption biomarker, these assays have the potential to help researchers disentangle the many factors contributing to bone strength.

Publication Type

Journal article.

<131>

Accession Number

20203578802

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128

Author

  Wagner, K. J. P.; Fragas Hinnig, P. de; Rossi, C. E.; Almeida Alves, M. de; Leite, M. S.; Vasconcelos, F. de A. G. de

Title

  Time trends in the prevalence of breastfeeding among schoolchildren from public and private schools in Florianopolis, Southern Brazil: from 2002 to 2013. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

  American Journal of Human Biology; 2020. 32(5). many ref.

Publisher

  Wiley

Location of Publisher

  Hoboken

Country of Publication

  USA

Abstract

  Objective: To describe breastfeeding trends from 2002 to 2012/2013, and to investigate whether breastfeeding practices differ between mothers of children in public and private schools. Methods: Data were obtained from three school-based cross-sectional studies conducted with 7 to 10 years old children. The total sample was 7264 individuals. Data related to breastfeeding were analyzed descriptively and compared using the chi-square test for heterogeneity or trend. Results: In the 10-year period was observed a decrease in the total percentage of schoolchildren who were not breastfed (12.9%-10.5%) and an increase in the percentage of schoolchildren breastfed for >12 months (23.9%-36.7%). In public schools, the increase of breastfeeding for >12 months was independent of maternal age and years of schooling. In private schools, the increase was observed for schoolchildren born to older mothers and to more educated mothers, although the highest percentage was observed for schoolchildren born to less educated mothers. Conclusions: The results confirm the complexity of determining breastfeeding behaviors, and understanding these dynamics is fundamental to develop and improve programs and actions aimed at encouraging, supporting, and protecting breastfeeding. However, strategies developed in Brazil during the first decade of the 21st century should explain the increase of proportion of breastfed children for more than 12 months, and the concomitant decrease of never breastfeed children in the city of Florianopolis (Southern Brazil).

Publication Type

  Journal article.

<132>

Accession Number

  20203578798

Author

  To, S. B.; Brewis, A. A.; Pomer, A.; Naseri, T.; Reupena, M. S.; McGarvey, S. T.; Hawley, N. L.

Title

  Changing body norms in the context of increasing body size: Samoa in 1995 and 2018. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

  American Journal of Human Biology; 2020. 32(5).

Publisher

  Wiley

Location of Publisher

  Hoboken

Country of Publication

  USA

Abstract

  Objective: To understand how body size preferences changed in Samoa between 1995 and 2017 to 2019. Methods: Data were from adults aged from 31 to 59 years, who participated in two separate cross-sectional studies of obesity and cardiometabolic risk conducted in Samoa in 1995 and 2017 to 2019. Participants nominated line drawings representing their current size, ideal size, the most attractive and healthiest size, and the lower/upper limits of "normal" size. Results: In both sexes, body size preferences and perceived current average body size have increased, yet preference for bodies smaller than one's perceived current size has persisted. Furthermore, the range of body sizes that people considered "normal" has narrowed, suggesting decreased tolerance for extremes of body size. Conclusions: These findings may have implications for mental and physical health outcomes, inform development of future health initiatives, and contribute to a deeper understanding of how body norms and weight-related public health efforts interface.

Publication Type

  Journal article.

<133>

Accession Number

  20203578795

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Author

 Cayres-Santos, S. U.; Urban, J. B.; Barbosa, M. F.; Lemes, I. R.; Kemper, H. C. G.; Fernandes, R. A.

Title

 Sports participation improves metabolic profile in adolescents: ABCD growth study. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

 American Journal of Human Biology; 2020. 32(5).

Publisher

 Wiley

Location of Publisher

 Hoboken

Country of Publication

 USA

Abstract

  To analyze the impact of participation in sports with different cardiorespiratory fitness (CRF) demands on changes in metabolic and cardiovascular markers in adolescents. Longitudinal study with 12 months of follow-up (Analysis of Behaviors of Children During Growth [ABCD Growth Study]). Overall, 184 adolescents (age 15.6 +or- 2.1) were classified according to sports participation: non-sport (control), low CRF sports, and high CRF sports. Metabolic outcomes were total cholesterol (TC) and its fractions, triacylglycerol (TG), glucose, insulin levels, and the insulin resistance index. Cardiovascular outcomes were arterial thickness (carotid and femoral [ultrasound]), blood pressure, and resting heart rate. Adolescents engaged in sports classified as high CRF demand presented a significant increase in HDL-c (1.2 mg/dL [95%CI: -0.5 to 3.0]) when compared to the non-sport group (-2.4 mg/dL [95%CI: -4.4 to -0.5]). Regular engagement in high CRF sports was significantly related to changes in TC (beta = -0.027 [95%CI: -0.048 to -0.005]), HDL-c (beta = 0.009 [95%CI: 0.001 to 0.019]), LDL-c (beta = -0.032 [95%CI: -0.049 to -0.016]), and glucose (beta = -0.017 [95%CI: -0.025 to -0.008]), while engagement in low CRF sports was related to changes in TG (beta = -0.065 [95%CI: -0.112 to -0.019]). No significant relationships for cardiovascular parameters were observed in the low CRF group, but one significant relationship was found between high CRF sports and changes in SBP (beta = -0.063 [95%CI: -0.117 to -0.009]). In conclusion, engagement in sports seems to be beneficial for improvements in metabolic and cardiovascular parameters in adolescents, mainly sports with higher CRF demand.

Publication Type

 Journal article.

<134>

Accession Number

20203578665

Author

Hariyanto, T. I.; Japar, K. V.; Damay, V.; Kwenandar, F.; Sieto, N. L.; Kurniawan, A.

Title

The use of ACE inhibitor/ARB in SARS-CoV-2 patients: a comprehensive narrative review.

Source

Asian Journal of Medical Sciences; 2020. 11(6):113-120. 45 ref.

Publisher

Manipal College of Medical Sciences

Location of Publisher

Pokhara

Country of Publication

Nepal

Abstract

The three most common comorbidities that are associated with increased mortality in COVID-19 patients are Hypertension, Diabetes, and Cardiovascular disease, Angiotensin-converting enzyme (ACE) inhibitors and Angiotensin II receptor blockers (ARB) are the drugs most commonly prescribed for the management of these diseases. Recent experimental study in animals and humans have found that SARS-CoV-2 uses ACE2 as the receptors for entry. Moreover, in an animal study, the use of ACE inhibitor/ARB increases the level of ACE2 expression that can lead to increased SARS-CoV-2 infectivity. On the other side, some evidences suggest that the ACE2 receptor is not necessary for SARS-CoV-2 entry into the cell and suggested that there is a cofactor that play part. Experimental studies in humans also showed that there is no association between ACE inhibitor/ARB with SARS-CoV-2 infectivity and mortality. In conclusion, there is still insufficient data to stop the use of inhibitor/ARB in SARS-CoV-2 patients. Therefore, we suggested that in line with the recommendations from ESC and AHA/ACC, the use of these two drugs in SARS-CoV-2 patients with cardiovascular comorbidity should still be continued.

Publication Type

Journal article.

<135>

Accession Number

20203578658

Author

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132

Amitava Acharyya; Susmita Ghosh; Manas Ghosh; Kalyan Sarkar; Sonali Ghosh; Ambarish Bhattacharya; Kaushik Ghosh

Title

Knowledge, attitudes, and practices towards COVID-19 among hospital staff of West Bengal during COVID-19 outbreak: a hospital based cross sectional study.

Source

Publisher

Manipal College of Medical Sciences

Location of Publisher

Pokhara

Country of Publication

Nepal

Abstract

Background: COVID-19 disease is a highly contagious and totally unknown disease which is caused by SARS-CoV-2. This disease spread throughout the world irrespective of social, economical and political variation. Health care staff are the frontline COVID-19 worrier and their understanding of this disease is very important. Aims and Objective: The aim of this study was to assess the knowledge, attitudes and practices (KAP) towards COVID-19 disease among the healthcare staff of a tertiary care hospital of West Bengal. Materials and Methods: An analytic cross-sectional study was conducted at Murshidabad Medical College, Murshidabad from 25th April, 2020 to 2nd May, 2020. A total of 214 health care staff (83 nurses, 75 doctors, 20 para-medical staff, 24 administrative staff, and 12 sweepers) participated in this questionnaire based KAP study. The questionnaire was prepared according to the World Health Organization' on Corona virus disease (COVID-19) "advice for the public". The Systematic random sampling procedure was employed for data collection. The data was analysed using T-test, ANOVA, chi-square test and regression model. The informed consent was taken from each participant. Result: Female (62%) participants were more than male (38%) participants. Mean age of the participants was 27.03+or-7.63 years. About the half participants were unmarried (55%) and studied up to bachelor's degree (49%). The overall knowledge score found to be "medium level" with 77% reporting correct answers. The knowledge score was statistically different among age group, education level, marital status and occupational group of health care staff in this hospital by univariate analysis. The good attitudes and good practices were not related with knowledge score. The majority of the respondents (78%) had confidence on their attitude that "India can win the battle against COVID-19". Only 86% participants wore masks while going out in the lock-down period and 79% participants had not visited any crowded place. Only 18% participants used traditional home remedies for flu like symptoms. In multivariate analysis, doctors were found with better knowledge score and attitude towards COVID-19 than other healthcare staff in this hospital. Conclusion: The two preventive practice (social isolation and mask use) and optimistic attitude towards COVID-19 of health care staff were not totally depended on COVID-19 related knowledge score. However, knowledge score was depended on marital status, educational background, age, occupation and place of residence. Government should emphasize more on COVID-19 related health education and health promotion programme at community level.

Publication Type

Journal article.

<136>

Accession Number

  20203578620

Author

  Li LiuCheng; Zhang ZhiHui; Zhou WenCheng; Chen Jie; Jin HuaQian; Fang HongMei; Chen Qin; Jin YeCheng; Qu Jiao; Kan LianDi

Title

  Lianhua Qingwen prescription for Coronavirus disease 2019 (COVID-19) treatment: advances and prospects.

Source

  Biomedicine & Pharmacotherapy; 2020. 130. 53 ref.

Publisher

  Elsevier Masson SAS

Location of Publisher

  Issy-les-Moulineaux

Country of Publication

  France

Abstract

  Background: An outbreak of Coronavirus Disease 2019 (COVID-19) which was infected by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), is still spreading and has led to unprecedented health emergency over the world. Though no specific drug has been developed so far, emerging agents have been confirmed effective or potentially beneficial to restrain it. Lianhua Qingwen (LHQW) is a commonly used Chinese medical preparation to treat viral influenza, including in the fight against SARS in 2002-2003 in China. Recent data also showed that LHQW played a vigorous role in COVID-19 treatment. Purpose: This review will elucidate the pre-clinical and clinical evidence of LHQW in lung protection and antiviral activities, and provide timely data delivery for the exploration of effective treatment strategies in the therapy of COVID-19. Study design and method: The research data were obtained from the academic databases (up to August 8, 2020) including Pubmed, CNKI and Web of Science, on ethnobotany and ethno medicines. The search keywords for screening the literature information were "virus", "COVID-19", or "SARS-CoV-2", and "Lianhua Qingwen". The documents were filtered and summarized for final evaluation. Results: The collected evidence demonstrated that LHQW exhibited benefits against COVID-19. Impressively, LHQW in conjunction with conventional treatment could significantly improve COVID-19 patients as a synergetic strategy. The mechanisms were mainly involved the antiviral activity, and regulation of inflammation response as well as immune function. Conclusion: Although the data were far from adequate, the latest advances had shown the benefits of LHQW in COVID-19, especially in combination with other antiviral drugs. This review provides comprehensive evidence of LHQW as a complementary strategy for treating COVID-19. Nevertheless, imperious researches should be conducted to

clarify the unconfirmed effects, regulatory mechanisms and adverse reactions of LHQW in treating COVID-19 by means of well designed randomized controlled trials.

Publication Type

Journal article.

<137>

Accession Number

20203578566

Author

Uddin, M. M.; Akter, A.; Khaleduzzaman, A. B. M.; Sultana, M. N.; Hemme, T.

Title

Application of the farm simulation model approach on economic loss estimation due to coronavirus (COVID-19) in Bangladesh dairy farms - strategies, options, and way forward.

Source

Tropical Animal Health and Production; 2021. 53(33). 16 ref.

Publisher

Springer Berlin

Location of Publisher

Heidelberg

Country of Publication

Germany

Abstract

The objective of this paper is to quantify the economic loss of the dairy farms due to the pandemic novel Coronavirus (COVID-19) infection by analyzing the real-time data of two typical farms (BD-2 and BD-14 cow) in Bangladesh and propose a strategic plan of action to make policy decisions in order to support the dairy industry. The International Farm Comparison Network (IFCN) Farm Simulation Approach and Technology Impact Policy Impact Calculations (TIPICAL) model was used considering with Corona (WC) and without Corona (WOC). The Integrated Dairy Research Network (IDRN) database (January 2019 to July 2020) was used for simulation of IFCN two typical farms. The milk price is decreased by 17% and feed price is increased by 3.7% due to COVID-19 in March which was used as the base for farm simulation. This resulted in a decrease in milk yield by 7.9% and 8.9% for small household and family farms, respectively. The cost of milk production increased by 19.10% and 10.9% for household and family farms, respectively. This has an overall negative impact on farm income which accounted for national economic loss from dairy farms in Bangladesh to 4.43 million USD/day (36.84 crore BDT). This loss has been fluctuated from April onward and

was higher in June (3.83 million USD/day) due to a combination of COVID-19, flood, and seasonality effect on lowering milk production. At the same time, the farmers' response to the resilience capacity (liquidity, operating profit margin, and financial performance) to combat COVID-19-induced situation has been declined substantially. Based on this, we conclude that the government might take a strategy to support farmers by providing financial support for increasing the operating capital and decreasing the cost of milk production. The outcome of this study is expected to be beneficial for policymakers, farmers, and processors in Bangladesh and similar other countries elsewhere.

Publication Type

Journal article.

<138>

Accession Number

20203578385

Author

Dincturk, C.; Dal, I.; Aciksoz, S.

Title

Doctrines of the pandemic and new outdoor uses. [Turkish]

Source

Bartin Orman Fakultesi Dergisi; 2020. 22(3):791-801. 52 ref.

Publisher

Bartin Orman Fakultesi, Bartin Universitesi

Location of Publisher

Bartin

Country of Publication

Turkey

Abstract

A virus (COVID-19) that emerged in Wuhan, China towards the end of 2019 was reported to the World Health Organization (WHO) and was declared as a pandemic on a global scale as it began to spread rapidly. The COVID-19 virus can be transmitted to people of all ages, but it affects some groups more. Countries trying to influence the pace of the pandemic take measures such as canceling events, imposing curfews or restricting the use of outdoor spaces. Increasing the social distance in the city plays a major role in reducing the spread of the virus in urban space. In this context, existing urban systems need to be strengthened. This study aims to protect the environment and community health in creating sustainable and healthy cities based on human-environment-epidemic. In order to evaluate the general and spatial perception of human,

environment and epidemic issues in the study, a survey study was conducted, and the data obtained were evaluated in the SPSS 23.0 program. Firstly, demographic data and then propositions for measuring the relationship between human-landscape-epidemic were evaluated; as a result, "determinations regarding the effects of the pandemic factor on the landscape" were made. To improve the living conditions in the public sphere; suggestions for outdoor use, improvement of public health and competent institutions were presented.

Publication Type

Journal article.

<139>

Accession Number

20203578100

Author

Ravelomanantsoa, N. A. F.; Guth, S.; Andrianiaina, A.; Andry, S.; Gentles, A.; Ranaivoson, H. C.; Brook, C. E.

Title

The zoonotic potential of bat-borne coronaviruses.

Source

Emerging Topics in Life Sciences; 2020. 4(4):365-381.

Publisher

Portland Press Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Seven zoonoses - human infections of animal origin - have emerged from the Coronaviridae family in the past century, including three viruses responsible for significant human mortality (SARS-CoV, MERS-CoV, and SARS-CoV-2) in the past twenty years alone. These three viruses, in addition to two older CoV zoonoses (HCoV-229E and HCoV-NL63) are believed to be originally derived from wild bat reservoir species. We review the molecular biology of the bat-derived Alpha- and Betacoronavirus genera, highlighting features that contribute to their potential for cross-species emergence, including the use of well-conserved mammalian host cell machinery for cell entry and a unique capacity for adaptation to novel host environments after host switching. The adaptive capacity of coronaviruses largely results from their large genomes, which reduce the risk of deleterious mutational errors and facilitate range-expanding

recombination events by offering heightened redundancy in essential genetic material. Large CoV genomes are made possible by the unique proofreading capacity encoded for their RNA-dependent polymerase. We find that bat-borne SARS-related coronaviruses in the subgenus Sarbecovirus, the source clade for SARS-CoV and SARS-CoV-2, present a particularly poignant pandemic threat, due to the extraordinary viral genetic diversity represented among several sympatric species of their horseshoe bat hosts. To date, Sarbecovirus surveillance has been almost entirely restricted to China. More vigorous field research efforts tracking the circulation of Sarbecoviruses specifically and Betacoronaviruses more generally is needed across a broader global range if we are to avoid future repeats of the COVID-19 pandemic.

Publication Type

  Journal article.

<140>

Accession Number

  20203577931

Author

  Rossi, J.; Woods, T.

Title

  Understanding shareholder satisfaction and retention in CSA incentive programs.

Source

  Journal of Food Distribution Research; 2020. 51(3):16-40. 38 ref.

Publisher

  Food Distribution Research Society, Inc.

Country of Publication

  USA

Abstract

  Innovations in Community Supported Agriculture (CSA) have intensified during the COVID-19 pandemic, including the use of employer voucher programs. With many first-time shareholders trying the CSA model, evaluating shareholder satisfaction may help improve retention rates. We evaluate a dataset of new and experienced shareholders enrolled in a pilot CSA voucher program to determine what variables impact their decisions to join or recommend CSA. We find that increased levels of shareholder engagement during the CSA season and certain shareholder motivations for initially joining a CSA are associated with increased satisfaction and likelihood of joining a CSA in the future.

Publication Type

  Journal article.

<141>

Accession Number

20203577568

Author

Ghahremanloo, M.; Lops, Y.; Choi Yunsoo; Mousavinezhad, S.

Title

Impact of the COVID-19 outbreak on air pollution levels in East Asia.

Source

Science of the Total Environment; 2021. 754. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This study leverages satellite remote sensing to investigate the impact of the coronavirus outbreak and the resulting lockdown of public venues on air pollution levels in East Asia. We analyze data from the Sentinel-5P and the Himawari-8 satellites to examine concentrations of NO2, HCHO, SO2, and CO, and the aerosol optical depth (AOD) over the BTH, Wuhan, Seoul, and Tokyo regions in February 2019 and February 2020. Results show that most of the concentrations of pollutants are lower than those of February 2019. Compared to other pollutants, NO2 experienced the most significant reductions by almost 54%, 83%, 33%, and 19% decrease in BTH, Wuhan, Seoul, and Tokyo, respectively. The greatest reductions in pollutants occurred in Wuhan, with a decrease of almost 83%, 11%, 71%, and 4% in the column densities of NO2, HCHO, SO2, and CO, respectively, and a decrease of about 62% in the AOD. Although NO2, CO, and formaldehyde concentrations decreased in the Seoul and Tokyo metropolitan areas compared to the previous year, concentrations of SO2 showed an increase in these two regions due to the effect of transport from polluted upwind regions. We also show that meteorological factors were not the main reason for the dramatic reductions of pollutants in the atmosphere. Moreover, an investigation of the HCHO/NO2 ratio shows that in many regions of East China, particularly in Wuhan, ozone production in February 2020 is less NOX saturated during the daytime than it was in February 2019. With large reductions in the concentrations of NO2 during lockdown situations, we find that significant increases in surface ozone in East China from February 2019 to February 2020 are likely the result of less reaction of NO and O3 caused by significantly reduced NOX concentrations and less NOX saturation in East China during the daytime.

Publication Type

 Journal article.

<142>

Accession Number

 20203577494

Author

 Fan YeeVan; Jiang Peng; Hemzal, M.; Klemes, J. J.

Title

 An update of COVID-19 influence on waste management.

Source

 Science of the Total Environment; 2021. 754. many ref.

Publisher

 Elsevier Ltd

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

  COVID-19 has been sweeping the world. The overall number of infected persons has been increased from 5 M in March 2020 to over 22 M in August 2020 and growing, which seems not to get its peak at the current stage. This has contributed to waste generation and different phases of challenges in waste management practices. The impacts including change in waste amount, composition, timing/frequency (temporal), distribution (spatial) and risk, which affects the handling and treatment practices. Recent impacts, challenges and developments on waste management in the response of COVID-19 have been assessed in this update. Singapore, the cities of Shanghai in China and Brno in the Czech Republic (a member state of the European Union), representing different pandemic development situation and also various cultural attitudes, are specifically analysed and discussed with current data. However, it should be noted that it is still fast developing. A varying trend in term of the waste amount is identified. Shanghai is showing a ~23% decline in household waste amount; however, Singapore is showing a ~3% increase, and Brno is showing a ~1% increase in household waste amount but ~40% decline in business and industrial waste. Manual sorting and recycling have been reported as restricted due to safety precaution. This is supported by the interview communication with ZEVO SAKO (the largest incineration plant in the Czech Republic). This study highlighted that the practices or measures at each place could serve as a guideline and reference. However, adaption is required according to the geographical and socioeconomic factors.

Publication Type

Journal article.

<143>

Accession Number

20203577487

Author

Mishra, A.; Bruno, E.; Zilberman, D.

Title

Compound natural and human disasters: managing drought and COVID-19 to sustain global agriculture and food sectors.

Source

Science of the Total Environment; 2021. 754. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Individually, both droughts and pandemics cause disruptions to global food supply chains. The 21st century has seen the frequent occurrence of both natural and human disasters, including droughts and pandemics. Together their impacts can be compounded, leading to severe economic stress and malnutrition, particularly in developing countries. Understanding how droughts and pandemics interact, and identifying appropriate policies to address them together and separately, is important for maintaining a robust global food supply. Herein we assess the impacts of each of these disasters in the context of food and agriculture, and then discuss their compounded effect. We discuss the implications for policy, and suggest opportunities for future research.

Publication Type

Journal article.

<144>

Accession Number

  20203577330

Author

  Hendrikse, C.; Parak, M.; Hoving, D. J. van

Title

  A descriptive analysis of the effect of the national COVID-19 lockdown on the workload and case mix of patients presenting to a district-level emergency centre in Cape Town, South Africa.

Source

  SAMJ - South African Medical Journal; 2020. 110(11):1113-1118. 25 ref.

Publisher

  Health and Medical Publishing Group

Location of Publisher

  Cape Town

Country of Publication

  South Africa

Abstract

  Background. The global COVID-19 pandemic caused many countries to institute nationwide lockdowns to limit the spread of the disease. Objectives. To describe the effect of the national COVID-19 lockdown in South Africa (SA) on the workload and case mix of patients presenting to a district-level emergency centre. Methods. The electronic patient tracking and registration database at Mitchells Plain Hospital, a district-level hospital in Cape Town, was retrospectively analysed. The 5-week lockdown period (27 March - 30 April 2020) was compared with a similar period immediately before the lockdown (21 February - 26 March). A comparison was also made with corresponding time periods during 2018 and 2019. Patient demographics, characteristics, diagnoses and disposition, as well as process times, were compared. Results. A total of 26 164 emergency centre visits were analysed (8 297 in 2020, 9 726 in 2019, 8 141 in 2018). There was a reduction of 15% in overall emergency centre visits from 2019 to 2020 (non-trauma 14%, trauma 20%). A 35% decrease was seen between the 2020 lockdown period and the 5-week period before lockdown (non-trauma 33%, trauma 43%), and the reduced number of visits stayed similar throughout the lockdown period. The median age increased by 5 years during the 2020 lockdown period, along with an 8% decrease in patients aged <12 years. High-acuity patients increased by 6% and the emergency centre mortality rate increased by 1%. All process times were shorter during the lockdown period (time to triage -24%, time to consultation -56%, time to disposition decision -29%, time in the emergency centre -20%). Conclusions. The SA national COVID-19 lockdown resulted in a substantial decrease in the number of patients presenting to the emergency centre. It is yet to be seen how quickly emergency centre volumes will recover as lockdown measures are eased.

Publication Type

Journal article.

<145>

Accession Number

20203577324

Author

McQuoid-Mason, D. J.

Title

Is the COVID-19 regulation that prohibits parental visits to their children who are patients in hospital invalid in terms of the Constitution? What should hospitals do?

Source

SAMJ - South African Medical Journal; 2020. 110(11):1086-1087. 6 ref.

Publisher

Health and Medical Publishing Group

Location of Publisher

Cape Town

Country of Publication

South Africa

Abstract

This article deals with whether the COVID-19 regulation that prohibits parental visits to their children who are patients in hospital is invalid in terms of the Constitution of South Africa. The article contends that the ban on visits by parents to their children in hospital is a violation of the children's rights provisions of the Constitution regarding the 'best interests of the child', and the 'best interests standard' in the Children's Act 38 of 2005. The article also points out that the regulations are not saved by the limitations clause of the Constitution, because the restriction is not 'reasonable and justifiable' and a 'less restrictive means' can be used to achieve the same purpose of preventing the spread of the COVID-19 virus. The article concludes that the relevant regulation is legally invalid, and hospitals would be fully justified in allowing parental visits to child patients provided proper precautions are taken to contain the virus.

Publication Type

Journal article.

<146>

Accession Number

  20203577323

Author

  Ezeokoli, O. T.; Pohl, C. H.

Title

  Opportunistic pathogenic fungal co-infections are prevalent in critically ill COVID-19 patients: are they risk factors for disease severity?

Source

  SAMJ - South African Medical Journal; 2020. 110(11):1081-1085. 55 ref.

Publisher

  Health and Medical Publishing Group

Location of Publisher

  Cape Town

Country of Publication

  South Africa

Abstract

  Fungal co-infections, especially with Aspergillus and Candida species, are prevalent in hospitalised COVID-19 patients, and could influence patient outcomes and hamper treatment efforts. However, information about and elucidation of the causal relationship between fungal co-infections and COVID-19 disease outcomes or severity in patients are still lacking. Such information, if and when available, will help facilitate appropriate case management.

Publication Type

  Journal article.

<147>

Accession Number

  20203577267

Author

Alexander, M. R.; Schoeder, C. T.; Brown, J. A.; Smart, C. D.; Moth, C.; Wikswo, J. P.; Capra, J. A.; Meiler, J.; Chen WenBiao; Madhur, M. S.

Title

Predicting susceptibility to SARS-CoV-2 infection based on structural differences in ACE2 across species.

Source

FASEB Journal; 2020. 34(12):15946-15960. 61 ref.

Publisher

John Wiley and Sons, Inc

Location of Publisher

New York

Country of Publication

USA

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the cause of the global pandemic of coronavirus disease-2019 (COVID-19). SARS-CoV-2 is a zoonotic disease, but little is known about variations in species susceptibility that could identify potential reservoir species, animal models, and the risk to pets, wildlife, and livestock. Certain species, such as domestic cats and tigers, are susceptible to SARS-CoV-2 infection, while other species such as mice and chickens are not. Most animal species, including those in close contact with humans, have unknown susceptibility. Hence, methods to predict the infection risk of animal species are urgently needed. SARS-CoV-2 spike protein binding to angiotensin-converting enzyme 2 (ACE2) is critical for viral cell entry and infection. Here we integrate species differences in susceptibility with multiple in-depth structural analyses to identify key ACE2 amino acid positions including 30, 83, 90, 322, and 354 that distinguish susceptible from resistant species. Using differences in these residues across species, we developed a susceptibility score that predicts an elevated risk of SARS-CoV-2 infection for multiple species including horses and camels. We also demonstrate that SARS-CoV-2 is nearly optimal for binding ACE2 of humans compared to other animals, which may underlie the highly contagious transmissibility of this virus among humans. Taken together, our findings define potential ACE2 and SARS-CoV-2 residues for therapeutic targeting and identification of animal species on which to focus research and protection measures for environmental and public health.

Publication Type

Journal article.

<148>

Accession Number

20203577169

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145

Author

Saha, B. K.; Bonnier, A.; Chong Woon

Title

Antimalarials as antivirals for COVID-19: believe it or not!

Source

American Journal of the Medical Sciences; 2020. 360(6):618-630. 68 ref.

Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a novel coronavirus responsible for the coronavirus disease -19 (COVID-19). Since December 2019, SARS-CoV-2 has infected millions of people worldwide, leaving hundreds of thousands dead. Chloroquine (CQ) and Hydroxychloroquine (HCQ) are antimalarial medications that have been found to have in vitro efficacy against SARS-CoV-2. Several small prospective studies have shown positive outcomes. However, this result has not been universal, and concerns have been raised regarding the indiscriminate use and potential side effects. The clinicians are conflicted regarding the usage of these medications. Appropriate dose and duration of therapy are unknown. Here, we will discuss the pharmacokinetic and pharmacodynamic properties of CQ and HCQ, as well as review the antiviral properties. The manuscript will also examine the available data from recent clinical and preclinical trials in order to shed light on the apparent inconsistencies.

Publication Type

Journal article.

<149>

Accession Number

20203577137

Author

Satyendra Khichar; Naresh Midha; Gopal Krishana Bohra; Deepak Kumar; Maya Gopalakrishanan; Bharat Kumar; Varatharajan Sakthivadivel; Mahendra Kumar Garg

Title

Healthcare resource management and pandemic preparedness for COVID-19: a single centre experience from Jodhpur, India.

Source

International Journal of Health Policy and Management; 2020. 9(11):493-495. 8 ref.

Publisher

Kerman University of Medical Sciences

Location of Publisher

Kerman

Country of Publication

Iran

Publication Type

Correspondence.

<150>

Accession Number

20203577135

Author

Raaj Kishore Biswas; Samin Huq; Awan Afiaz

Title

Relaxed lockdown in Bangladesh during COVID-19: should economy outweigh health?

Source

International Journal of Health Policy and Management; 2020. 9(11):488-490. 10 ref.

Publisher

Kerman University of Medical Sciences

Location of Publisher

Kerman

Country of Publication

Iran

Publication Type

Correspondence.

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147

<151>

Accession Number

 20203577132

Author

 Kim Hyoungah; Kim Dohyeong; Paul, C.; Lee ChangKil

Title

 The spatial allocation of hospitals with negative pressure isolation rooms in Korea: are we prepared for new outbreaks?

Source

 International Journal of Health Policy and Management; 2020. 9(11):475-483. 40 ref.

Publisher

 Kerman University of Medical Sciences

Location of Publisher

 Kerman

Country of Publication

 Iran

Abstract

   Background: Allocation of adequate healthcare facilities is one of the most important factors that public health policy-makers consider when preparing for infectious disease outbreaks. Negative pressure isolation rooms (NPIRs) are one of the critical resources for control of infectious respiratory diseases, such as the novel coronavirus disease 2019 (COVID-19) outbreak. However, there is insufficient attention to efficient allocation of NPIR-equipped hospitals. Methods: We aim to explore any insufficiency and spatial disparity of NPIRs in South Korea in response to infectious disease outbreaks based on a simple analytic approach. We examined the history of installing NPIRs in South Korea between the severe acute respiratory syndrome (SARS) outbreak in 2003 and the Middle East respiratory syndrome coronavirus (MERS-Cov) in 2015 to evaluate the allocation process and spatial distribution of NPIRs across the country. Then, for two types of infectious diseases (a highly contagious disease like COVID-19 vs. a hospital-based transmission like MERS-Cov), we estimated the level of disparity between NPIR capacity and demand at the sub-regional level in South Korea by applying the two-step floating catchment area (2SFCA) method. Results: Geospatial information system (GIS) mapping reveals a substantial shortage and misallocation of NPIRs, indicating that the Korean government should consider a simple but evidence-based spatial method to identify the areas that need NPIRs most and allocate funds wisely. The 2SFCA method suggests that, despite the recent addition of NPIRs across the country, there should still be more NPIRs regardless of the spread pattern of the disease. It also illustrates high levels of regional disparity in allocation of those facilities in preparation for an infectious disease, due to the lack of evidence-based approach. Conclusion: These findings highlight

the importance of evidence-based decision-making processes in allocating public health facilities, as misallocation of facilities could impede the responsiveness of the public health system during an epidemic. This study provides some evidence to be used to allocate the resources for NPIRs, the urgency of which is heightened in the face of rapidly evolving threats from the novel COVID-19 outbreak.

Publication Type

  Journal article.

<152>

Accession Number

  20203576987

Author

  Melo, A. de S.; Sobral, A. I. G. da P.; Marinho, M. L. M.; Duarte, G. B.; Gomes, T. H. F.; Sobral, M. F. F.

Title

  How climate variables influence the spread of SARS-CoV-19 in the United States.

Source

  Sustainability; 2020. 12(21). 46 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  During the 2020 Coronavirus pandemic, several scientific types of research investigated the causes of high transmissibility and deaths caused by SARS-CoV-2. Among the spreading factors of the disease, it is known that there is an association between temperature and infected people. However, the studies that identified this phenomenon explored an association relationship, which is weaker and does not allow the identification of which variable would be the cause. This study aimed to analyze the impact of temperature variations and other climatic variables on the infection rate of COVID-19. Data were extracted from weather stations in the United States, which were segregated by county and day. Daily COVID-19 infections and deaths per county were also collected. Two models were used: the first model to analyze the temperature and the number of infected cases and the second model to evaluate the variables of temperature, precipitation, and snow in relation to COVID-19 infection. Model 1 shows that an increase in temperature at time zero caused a decrease in the number of infected cases. Meanwhile, a decrease in

temperature after the temperature shock was associated with an increase in the number of cases, which tended to zero overall. A 1% increase in temperature caused a 0.002% decrease in the number of cases. The results suggested a causal relationship between the average temperature and number of CODIV-19 cases. Model 2, which includes temperature, precipitation, and snow shows that an increase in temperature resulted in a 0.00154% decrease response. There was no significant effect of increased precipitation and snow on the infection rate with COVID-19.

Publication Type

Journal article.

<153>

Accession Number

20203576889

Author

Alwahaibi, N.; Al-Maskari, M.; Al-Dhahli, B.; Al-Issaei, H.; Al-Bahlani, S.

Title

A review of the prevalence of COVID-19 in the Arab world.

Source

Journal of Infection in Developing Countries; 2020. 14(11):1238-1245. 50 ref.

Publisher

Open Learning on Enteric Pathogens (OLOEP)

Location of Publisher

Sassari

Country of Publication

Italy

Abstract

Introduction: Coronavirus disease 2019 (COVID-19) is a rapidly spreading disease worldwide. It is a real test for all health authorities including Arab countries. In this review, we aimed to assess the prevalence of COVID-19 in the Arab world. In addition, to compare the findings of this study with other top affected countries. Methodology: We searched for official websites from the Ministries of Health and other official sources in all 22 Arab countries. Medline, Science Direct and Google Scholar websites were also used to search for COVID-19, 2019 novel coronavirus, SARS-CoV-2 and coronavirus. The time period was from 1 January 2020 to 31 May 2020. Results: As of May 31, 2020, COVID-19 has caused 290,428 confirmed cases, 3,696 deaths and 157,886 cured cases in all Arab countries. In terms of confirmed cases, Saudi Arabia followed by Qatar, UAE, Kuwait and Egypt have the highest reported cases. However, the total number of

deaths was dominant in Egypt, followed by Algeria, Saudi Arabia, Sudan and UAE. In comparison to other non-Arab countries and confirmed cases, Arab countries come fourth after USA, Brazil and Russia. In terms of death, the Arab world is not listed as the top ten affected countries as only scored eight deaths per million have been recorded. Conclusions: Most Arab countries took some serious early steps to minimize the outbreak of COVID-19. At the moment, controlling the source of infection, the route of transmission and taking care of infected patients are the main challenges for health authorities in all Arab countries.

Publication Type

Journal article.

<154>

Accession Number

20203576846

Author

Richa Mukhra; Kewal Krishan; Tanuj Kanchan

Title

COVID-19 sets off mass migration in India.

Source

Archives of Medical Research; 2020. 51(7):736-738. 5 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

The communication discusses COVID-19 triggered reverse migration in India. India has witnessed the second largest mass migration in its history after the Partition of India in 1947, where more than 14 million people were displaced and migrated to India and Pakistan respectively, depending on their religious faiths. The opinion describes the trend of migration and related effects on the migrants as well as the nation at large.

Publication Type

Correspondence.

<155>

Accession Number

  20203576780

Author

  Zeitlinger, M.; Koch, B. C. P.; Bruggemann, R.; Cock, P. de; Felton, T.; Hites, M.; Le, J.; Luque, S.; MacGowan, A. P.; Marriott, D. J. E.; Muller, A. E.; Nadrah, K.; Paterson, D. L.; Standing, J. F.; Telles, J. P.; Wolfl-Duchek, M.; Thy, M.; Roberts, J. A.

Title

  Pharmacokinetics/pharmacodynamics of antiviral agents used to treat SARS-CoV-2 and their potential interaction with drugs and other supportive measures: a comprehensive review by the PK/PD of anti-infectives study group of the European society of antimicrobial agents.

Source

  Clinical Pharmacokinetics; 2020. 59(10):1195-1216. 29 ref.

Publisher

  Adis International Ltd

Location of Publisher

  Auckland

Country of Publication

  New Zealand

Abstract

  There is an urgent need to identify optimal antiviral therapies for COVID-19 caused by SARS-CoV-2. We have conducted a rapid and comprehensive review of relevant pharmacological evidence, focusing on (1) the pharmacokinetics (PK) of potential antiviral therapies; (2) coronavirus-specific pharmacodynamics (PD); (3) PK and PD interactions between proposed combination therapies; (4) pharmacology of major supportive therapies; and (5) anticipated drug-drug interactions (DDIs). We found promising in vitro evidence for remdesivir, (hydroxy)chloroquine and favipiravir against SARS-CoV-2; potential clinical benefit in SARS-CoV-2 with remdesivir, the combination of lopinavir/ritonavir (LPV/r) plus ribavirin; and strong evidence for LPV/r plus ribavirin against Middle East Respiratory Syndrome (MERS) for post-exposure prophylaxis in healthcare workers. Despite these emerging data, robust controlled clinical trials assessing patient-centred outcomes remain imperative and clinical data have already reduced expectations with regard to some drugs. Any therapy should be used with caution in the light of potential drug interactions and the uncertainty of optimal doses for treating mild versus serious infections.

Publication Type

  Journal article.

<156>

Accession Number

  20203576584

Author

  Nascimento Junior, J. A. C.; Santos, A. M.; Quintans Junior, L. J.; Walker, C. I. B.; Borges, L. P.; Serafini, M. R.

Title

  SARS, MERS and SARS-CoV-2 (COVID-19) treatment: a patent revie.

Source

  Expert Opinion on Therapeutic Patents; 2020. 30(8):567-579. 106 ref.

Publisher

  Taylor & Francis

Location of Publisher

  Abingdon

Country of Publication

  UK

Abstract

  Introduction: Coronavirus has been responsible for several virus outbreaks since 2003, caused by SARSCoV-1, MERS-CoV, and currently SARS-CoV-2 (COVID-19), the causative agent of coronavirus disease in 2019. COVID-19 has become a global public health emergency because of its high virulence and mortality capacity. This patent review aims to provide an overview of the patents that present possible treatments for SARS-CoV-1, SARS-CoV-2 and MERS-CoV. Areas covered: To treat SARS, MERS and SARS-CoV-2, researchers have filed patents for a number of therapeutic agents. Most of the treatments found were protease inhibitors aimed at proteases such as PLpro, 3 CLpro, RNA helicase, and Spike protein, or used monoclonal antibodies and interferons. In addition, the use of Chinese folk medicine and its multitude of medicinal plants with strong antiviral properties was reinforced. Thus, these therapies used in previous epidemics can serve as an aid in the new pandemic by SARS-CoV-2 and be a starting point for new treatments. Expert opinion: The various antiviral alternatives presented in this review offer therapeutic options to fight coronavirus infections. If shown to be effective, these drugs may be extremely important in the current pandemic.

Publication Type

  Journal article.

<157>

Accession Number

  20203576539

Author

  Chen ShiTao; Cheng ZeYuan; Wu Jing

Title

  Risk factors for adolescents' mental health during the COVID-19 pandemic: a comparison between Wuhan and other urban areas in China.

Source

  Globalization and Health; 2020. 16(96). 32 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: The outbreak of Coronavirus Disease is causing considerable acute risk to public health and might also have an unanticipated impact on the mental health of children and adolescents in the long run. This study collected data during the national lockdown period in China and aims to understand whether there is a clinically significant difference in anxiety, depression, and parental rearing style when comparing adolescents from Wuhan and other cities in China. This study also intends to examine whether gender, grade in school, single child status, online learning participation, parents' involvement in COVID-19 related work, and parents being quarantined or infected due to the disease would lead to clinically significant differences in anxiety and depression. Beyond that, this study explored the pathways among the different variables in order to better understand how these factors play a part in impacting adolescents' mental health condition. Results: Results showed that there was a statistically significant difference in anxiety symptoms between participants who were from Wuhan compared to other urban areas, but not in depressive symptoms. In addition, participants' grade level, gender, relative being infected, and study online have direct positive predictive value for depressive and anxiety symptoms, whereas location and sibling status have indirect predictive value. Having relatives who participated in COVID-19 related work only had positive direct predictive value toward depression, but not anxiety. Conclusions: This study discovered several risk factors for adolescents' depression and anxiety during the pandemic. It also called for a greater awareness of Wuhan parents' mental wellbeing and recommended a systematic approach for mental health prevention and intervention.

Publication Type

  Journal article.

<158>

Accession Number

  20203576496

Author

  Rahimi, R.; Dolatabadi, Z.; Moeindarbary, S.; Behzadfar, S.; Ghasemi, N. F.; Tafrishi, R.; Kamali, M.

Title

  A systematic review of the prevalence of mental health disorders in pregnant women during the COVID-19 pandemic.

Source

  International Journal of Pediatrics; 2020. 8(11):12397-12407. 50 ref.

Publisher

  Mashhad University of Medical Sciences

Location of Publisher

  Mashhad

Country of Publication

  Iran

Abstract

  Background: There is not enough evidence to estimate the prevalence of depression and anxiety in pregnant women during the COVID-19 outbreak. This study aimed to investigate the prevalence of mental health disorders among pregnant women during the COVID-19 pandemic. Materials and Methods: In the present systematic review, a search process was conducted to screen the databases of ProQuest, Scopus, EMBASE, Web of Science, and MEDLINE for the relevant articles published between 2019 and 2020. The quality of the articles was assessed by the STROBE checklist. Results: From the relevant studies, 15 were selected for review. The results showed the prevalence of anxiety was between 3.8 to 17.5% in Asian countries, with the lowest in Iran (3.8%) and the highest in Sri Lanka (17.5%). The prevalence of anxiety was from 23.9 to 72% in Western countries, with the lowest in the USA (23%) and the highest in Canada (72%). In two of the studies in China, the prevalence of anxiety was from 3.09 to 29.6% and of depression from 5.2 to 40%. The incidence rate of self-harm thoughts as a result of the epidemic was significantly high (RR=2.85, 95% CI= 1.70, 8.85, P=0.005). Conclusion: The prevalence of anxiety was from 3.8 to 17.5% in Asian countries and from 23.9 to 72% in Western countries. The prevalence of depression was from 5.2 to 40%. Moderate levels of anxiety and depression were reported in Western countries compared with Asian countries. Depression and anxiety should be regularly screened in obstetrics and gynecology wards following the current epidemic to ensure optimal mental health during pregnancy and infancy.

Publication Type

  Journal article.

<159>

Accession Number

  20203574690

Author

  Shumba, C.; Maina, R.; Mbuthia, G.; Kimani, R.; Mbugua, S.; Shah, S.; Abubakar, A.; Luchters, S.; Shaibu, S.; Ndirangu, E.

Title

  Reorienting nurturing care for early childhood development during the COVID-19 pandemic in Kenya: a review.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(19). 108 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  In Kenya, millions of children have limited access to nurturing care. With the Coronavirus disease 2019 (COVID-19) pandemic, it is anticipated that vulnerable children will bear the biggest brunt of the direct and indirect impacts of the pandemic. This review aimed to deepen understanding of the effects of COVID-19 on nurturing care from conception to four years of age, a period where the care of children is often delivered through caregivers or other informal platforms. The review has drawn upon the empirical evidence from previous pandemics and epidemics, and anecdotal and emerging evidence from the ongoing COVID-19 crisis. Multifactorial impacts fall into five key domains: direct health; health and nutrition systems; economic protection; social and child protection; and child development and early learning. The review proposes program and policy strategies to guide the reorientation of nurturing care, prevent the detrimental effects associated with deteriorating nurturing care environments, and support the optimal development of the youngest and most vulnerable children. These include the provision of cash transfers and essential supplies for vulnerable households and strengthening of community-based platforms for nurturing care. Further research on COVID-19 and the ability of children's ecology to provide nurturing care is needed, as is further testing of new ideas.

Publication Type

  Journal article.

<160>

Accession Number

 20203574650

Author

 Al-Anzi, B. S.; Alenizi, M.; Al-Dallal, J.; Abookleesh, F. L.; Ullah, A.

Title

 An overview of the world current and future assessment of novel COVID-19 trajectory, impact, and potential preventive strategies at healthcare settings.

Source

 International Journal of Environmental Research and Public Health; 2020. 17(19). 35 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

Abstract

  This study is an overview of the current and future trajectory, as well as the impact of the novel Coronavirus (COVID-19) in the world and selected countries including the state of Kuwait. The selected countries were divided into two groups: Group A (China, Switzerland, and Ireland) and Group B (USA, Brazil, and India) based on their outbreak containment of this virus. Then, the actual data for each country were fitted to a regression model utilizing the excel solver software to assess the current and future trajectory of novel COVID-19 and its impact. In addition, the data were fitted using the Susceptible-Infected-Recovered (SIR) Model. The Group A trajectory showed an "S" shape trend that suited a logistic function with $r2 > 0.97$, which is an indication of the outbreak control. The SIR models for the countries in this group showed that they passed the expected 99% end of pandemic dates. Group B, however, exhibited a continuous increase of the total COVID-19 new cases, that best suited an exponential growth model with $r2 > 0.97$, which meant that the outbreak is still uncontrolled. The SIR models for the countries in this group showed that they are still relatively far away from reaching the expected 97% end of pandemic dates. The maximum death percentage varied from 3.3% (India) to 7.2% with USA recording the highest death percentage, which is virtually equal to the maximum death percentage of the world (7.3%). The power of the exponential model determines the severity of the country's trajectory that ranged from 11 to 19 with the USA and Brazil having the highest values. The maximum impact of this COVID-19 pandemic occurred during the uncontrolled stage (2), which mainly depended on the deceptive stage (1). Further, some novel potential containment strategies are discussed. Results from both models showed that the Group A

countries contained the outbreak, whereas the Group B countries still have not reached this stage yet. Early measures and containment strategies are imperative in suppressing the spread of COVID-19.

Publication Type

  Journal article.

<161>

Accession Number

  20203574636

Author

  Kuang JinYi; Ashraf, S.; Das, U.; Bicchieri, C.

Title

  Awareness, risk perception, and stress during the COVID-19 pandemic in communities of Tamil Nadu, India.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(19). 49 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The health and economic consequences of the COVID-19 pandemic is expected to disproportionately impact residents of lower-middle income countries. Understanding the psychological impact of the pandemic is important to guide outreach interventions. In this study, we examined people's awareness of COVID-19 symptoms, risk perception, and changes in behaviors and stress levels during the lockdown in peri-urban Tamil Nadu India. Field workers conducted phone call surveys (included n = 2044) in 26 communities from 20-25 May 2020. The majority perceived no (60%) or low (23%) level of risk of personally contracting coronavirus. Common fears were related to health and economic concerns, including loss of income (62%), inability to travel freely (46%), and becoming sick (46%). Residents were well aware of the common symptoms of COVID-19, such as fever (66%) and dry cough (57%), but not the asymptomatic transmission (24%). The majority experienced increased stress about finance (79%) and the lockdown (51%). Our findings emphasize the need to develop context-adequate education and communication programs to raise vigilance about asymptomatic transmission and to sustain preventative behaviors. The

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158

evidence on fear and changes in stress levels could inform designing coping strategies and programs focused on mental well-being.

Publication Type

 Journal article.

<162>

Accession Number

 20203574593

Author

 Randler, C.; Tryjanowski, P.; Jokimaki, J.; Kaisanlahti-Jokimaki, M. L.; Staller, N.

Title

 SARS-CoV2 (COVID-19) pandemic lockdown influences nature-based recreational activity: the case of birders.

Source

 International Journal of Environmental Research and Public Health; 2020. 17(19). 53 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

Abstract

 The new corona virus infection SARS-CoV2 which was later renamed COVID-19 is a pandemic affecting public health. The fear and the constraints imposed to control the pandemic may correspondingly influence leisure activities, such as birding, which is the practice of observing birds based on visual and acoustic cues. Birders are people who carry out birding observations around the globe and contribute to the massive data collection in citizen science projects. Contrasting to earlier COVID-19 studies, which have concentrated on clinical, pathological, and virological topics, this study focused on the behavioral changes of birders. A total of 4484 questionnaire survey responses from 97 countries were received. The questionnaire had an open-ended style. About 85% of respondents reported that COVID-19 has changed their birding behavior. The most significant change in birdwatchers' behavior was related to the geographic coverage of birding activities, which became more local. People focused mostly on yard birding. In total, 12% of respondents (n = 542 cases) reported having more time for birding, whereas 8% (n = 356 cases) reported having less time for birding. Social interactions decreased since respondents, especially older people, changed their birding

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behavior toward birding alone or with their spouse. Women reported more often than men that they changed to birding alone or with their spouse, and women also reported more often about canceled fieldtrips or society meetings. Respondents from higher developed countries reported that they spend currently more time for birding, especially for birding alone or with their spouse, and birding at local hotspots. Our study suggests that long lockdowns with strict regulations may severely impact on leisure activities. In addition, a temporal and spatial shift in birding due to the pandemic may influence data quality in citizen science projects. As nature-based recreation will be directed more toward nearby sites, environmental management resources and actions need to be directed to sites that are located near the users, e.g., in urban and suburban areas. The results can be applied with caution to other nature-based recreational activities.

Publication Type

  Journal article.

<163>

Accession Number

  20203574406

Author

  Li Chenxi; Zhao ChengXue; Bao JingFeng; Tang Bo; Wang YunFeng; Gu Bing

Title

  Laboratory diagnosis of coronavirus disease-2019 (COVID-19).

Source

  Clinica Chimica Acta; 2020. 510:35-46. 111 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The outbreak of Coronavirus Disease-2019 (COVID-19) caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) has threatened health worldwide. As of the end of 2020, there were nearly 10 million confirmed cases and nearly 5 million deaths associated with COVID-19. Rapid and early laboratory diagnosis of COVID-19 is the main focus of treatment and control. Molecular tests are the basis for confirmation of COVID-19, but serological tests for SARS-CoV-2 are widely available and play an increasingly

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important role in understanding the epidemiology of the virus and in identifying populations at higher risk for infection. Point-of-care tests have the advantage of rapid, accurate, portable, low cost and non-specific device requirements, which provide great help for disease diagnosis and detection. This review will discuss the performance of different laboratory diagnostic tests and platforms, as well as suitable clinical samples for testing, and related biosafety protection. This review shall guide for the diagnosis of COVID-19 caused by SARS-CoV-2.

Publication Type

Journal article.

<164>

Accession Number

20203574180

Title

Management of labor and delivery units during the COVID-19 outbreak report of 3 cases at Rafik Hariri University Hospital, Beirut, Lebanon. (Special Issue: COVID-19 pandemic.)

Source

Lebanese Medical Journal; 2020. 68(1/2):105-108.

Publisher

Comite Scientifique de L'Ordre des Medecins du Liban

Location of Publisher

Beirut

Country of Publication

Lebanon

Publication Type

Journal article.

<165>

Accession Number

   20203574177

Author

   Saleh, W. A.; Aoun-Bacha, Z.; Khalil, M. B.; Khalil, P. B.; Boulos, R.; Chami, H.; Diab, K.; Juvelikian, G.; Yazbeck, P.

Title

   Statement of the Lebanese Pulmonary Society, the Lebanese Society of Critical Care Medicine & the Lebanese Society of Anesthesiology. (Special Issue: COVID-19 pandemic.)

Source

   Lebanese Medical Journal; 2020. 68(1/2):83-86. 11 ref.

Publisher

   Comite Scientifique de L'Ordre des Medecins du Liban

Location of Publisher

   Beirut

Country of Publication

   Lebanon

Abstract

   COVID-19 has taken the whole world by surprise and overnight, we found ourselves at war with an invisible yet ruthless adversary. In Lebanon, representatives from the major medical societies at the forefront of the battle convened and drafted a document to serve as a roadmap towards tackling this pandemic. It involves diagnosis and early recognition of severity as well as potential treatment modalities, emphasizing the protection of healthcare personnel.

Publication Type

   Journal article.

<166>

Accession Number

   20203573974

Author

   Letko, M.; Seifert, S. N.; Olival, K. J.; Plowright, R. K.; Munster, V. J.

Title

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162

Bat-borne virus diversity, spillover and emergence.

Source

Nature Reviews Microbiology; 2020. 18(8):461-471. 177 ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Most viral pathogens in humans have animal origins and arose through cross-species transmission. Over the past 50 years, several viruses, including Ebola virus, Marburg virus, Nipah virus, Hendra virus, severe acute respiratory syndrome coronavirus (SARS-CoV), Middle East respiratory coronavirus (MERS-CoV) and SARS-CoV-2, have been linked back to various bat species. Despite decades of research into bats and the pathogens they carry, the fields of bat virus ecology and molecular biology are still nascent, with many questions largely unexplored, thus hindering our ability to anticipate and prepare for the next viral outbreak. In this Review, we discuss the latest advancements and understanding of bat-borne viruses, reflecting on current knowledge gaps and outlining the potential routes for future research as well as for outbreak response and prevention efforts.

Publication Type

Journal article.

<167>

Accession Number

20203573879

Author

Flaudias, V.; Iceta, S.; Zerhouni, O.; Rodgers, R. F.; Billieux, J.; Llorca, P. M.; Boudesseul, J.; Chazeron, I. de; Romo, L.; Maurage, P.; Samalin, L.; Begue, L.; Naassila, M.; Brousse, G.; Guillaume, S.

Title

COVID-19 pandemic lockdown and problematic eating behaviors in a student population.

Source

Journal of Behavioral Addictions; 2020. 9(3):826-835. 32 ref.

Publisher

Akademiai Kiado

Location of Publisher

Budapest

Country of Publication

Hungary

Abstract

Background and aims: Since mid-March 2020, over 3 billion people have been confined as a result of the COVID-19 pandemic. Problematic eating behaviors are likely to be impacted by the pandemic through multiple pathways. This study examined the relationships between stress related to lockdown measures and binge eating and dietary restriction in a population of French students during the first week of confinement. Methods: A sample of undergraduate students (N = 5,738) completed an online questionnaire 7 days after lockdown measures were introduced. The survey comprised variables related to lockdown measures and the COVID-19-pandemic, mood, stress, body image, binge eating and dietary restriction during the past 7 days, as well as intent to binge eat and restrict in the following 15 days. Results: Stress related to the lockdown was associated with greater likelihood of binge eating and dietary restriction over the past week and intentions to binge eat and restrict over the next 15 days. Greater exposure to COVID-19-related media was associated with increased eating restriction over the past week. Binge eating and restriction (past and intentions) were associated with established risk factors, including female gender, low impulse regulation, high body dissatisfaction, and having a concurrent probable eating disorder. Discussion and conclusion: The higher the stress related to the first week of confinement, the higher the risk of problematic eating behaviors among students, particularly those characterized by eating-related concerns. Screening for risk factors and providing targeted interventions might help decrease problematic eating behaviors among those who are most vulnerable.

Publication Type

Journal article.

<168>

Accession Number

20203573076

Author

Hagiu, A.; Barbulescu, M.; Voicu, M. D.

Title

The role of European bank for reconstruction and development in financing Romania's economy before and during COVID-19 pandemic.

Source

Lucrari Stiintifice, Universitatea de Stiinte Agricole Si Medicina Veterinara a Banatului, Timisoara, Seria I, Management Agricol; 2020. 22(2):253-260. 15 ref.

Publisher

Banat's University of Agricultural Science and Veterinary Medicine

Location of Publisher

Timisoara

Country of Publication

Romania

Abstract

Since it's inception, the EBRD has been committed to promoting the market economy, private initiative and entrepreneurship. The EBRD provides finances for the banking system, and industrial and commercial companies, regarding new partnerships and but also investing in companies that already are functioning. It also provides finaces for public enterprises. All EBRD projects are made as to meet the client's necesities and according to the economic and financial conditions of the sector, region or country. In this paper we intend to present the EBRD's activity in Romania in the last 3 years but also its strategy for Romania for the present and next period, the period that is and will continue to be marked for a long time by the effects of the covid-19 pandemic.

Publication Type

Journal article.

<169>

Accession Number

20203571485

Author

Saif, L. J.; Jung, K.

Title

Comparative pathogenesis of bovine and porcine respiratory coronaviruses in the animal host species and SARS-CoV-2 in humans. (Special Issue: Diagnostic testing for severe acute respiratory syndrome coronavirus 2 and lessons from this pandemic.)

Source

Journal of Clinical Microbiology; 2020. 58(8). 87 ref.

Publisher

American Society for Microbiology (ASM)

Location of Publisher

 Washington, D.C.

Country of Publication

 USA

Abstract

 Discovery of bats with severe acute respiratory syndrome (SARS)-related coronaviruses (CoVs) raised the specter of potential future outbreaks of zoonotic SARS-CoV-like disease in humans, which largely went unheeded. Nevertheless, the novel SARS-CoV-2 of bat ancestral origin emerged to infect humans in Wuhan, China, in late 2019 and then became a global pandemic. Less than 5 months after its emergence, millions of people worldwide have been infected asymptomatically or symptomatically and at least 360,000 have died. Coronavirus disease 2019 (COVID- 19) in severely affected patients includes atypical pneumonia characterized by a dry cough, persistent fever, and progressive dyspnea and hypoxia, sometimes accompanied by diarrhea and often followed by multiple organ failure, especially of the respiratory and cardiovascular systems. In this minireview, we focus on two endemic respiratory CoV infections of livestock: bovine coronavirus (BCoV) and porcine respiratory coronavirus (PRCV). Both animal respiratory CoVs share some common features with SARS-CoV and SARS-CoV-2. BCoV has a broad host range including wild ruminants and a zoonotic potential. BCoV also has a dual tropism for the respiratory and gastrointestinal tracts. These aspects, their interspecies transmission, and certain factors that impact disease severity in cattle parallel related facets of SARS-CoV or SARS-CoV-2 in humans. PRCV has a tissue tropism for the upper and lower respiratory tracts and a cellular tropism for type 1 and 2 pneumocytes in lung but is generally a mild infection unless complicated by other exacerbating factors, such as bacterial or viral coinfections and immunosuppression (corticosteroids).

Publication Type

 Journal article.

<170>

Accession Number

 20203571045

Author

 Dias, A.; Scavarda, A.; Reis, A.; Silveira, H.; Ebecken, N. F. F.

Title

 Managerial strategies for long-term care organization professionals: COVID-19 pandemic impacts.

Source

 Sustainability; 2020. 12(22). 87 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

This paper aims to analyze the strategies that healthcare professionals have adopted during the coronavirus pandemic (COVID-19) in long-term care organizations in Rio de Janeiro city, Brazil, by investigating their competencies-mainly managerial ones. To reach its goals, this paper performs empirical research and theoretical research. For the empirical research, the plans of professionals during COVID-19 pandemic in long-term care organizations are observed, and a questionnaire is applied to analyze observed data integrity. The data are analyzed through the Python and IBM SPSS Statistic programming languages, and descriptive analyses use descriptive statistic proportions, rates, minimum, maximum, mean, median, standard deviation, and coefficient of variation (CV). A non-parametric approach performs repeated measure comparisons using Wilcoxon's test, while the McNemmar test is used to repeat the categorical variables. Statistical significance is assumed at the 5% level. For the theoretical research, a literature review is developed using scientific databases. The results show that for the searched period, the number of deaths and the number of people infected by COVID-19 in these organizations are low when compared to general statistics of Rio de Janeiro city. This paper concludes that these strategical adoptions have brought significant benefits to long-term care organizations, and it might motivate researchers to develop future studies related to long-term care organizations, helping to fill the literature gap on the subject.

Publication Type

Journal article.

<171>

Accession Number

20203570941

Author

Wahl, J.; Lee SeungHoon; Jamal, T.

Title

Indigenous heritage tourism development in a (post-)COVID world: towards social justice at Little Bighorn Battlefield National Monument, USA.

Source

Sustainability; 2020. 12(22). 102 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

While a growing body of literature explores tourism impacts in search of sustainable outcomes, research on justice in diverse tourism settings is nascent. Theoretically informed studies drawing from interdisciplinary perspectives are just beginning to emerge to help examine contestations and injustices such as addressed in the case study presented here. The Little Bighorn Battlefield National Monument (or "Custer's Last Stand" as some know it; LBH) is a protected heritage tourism site that commemorates a battle between Native American tribes and the U.S. military in 1876. Indigenous stakeholders have struggled for decades with the National Park Service to overturn a long legacy of misrepresentation and exclusion from the commemoration and development of the site for heritage tourism. Site closures and other effects of the ongoing COVID-19 pandemic present additional challenges for Native American stakeholders like the Crow Tribe. Guided by Nancy Fraser's principles of trivalent justice (redistribution, recognition, and representation), this qualitative study traces the conflict over heritage commemoration, and explores the potential for praxis through ethical tourism development and marketing. Fraser's trivalent approach to justice demonstrates the importance of interdisciplinary research to examine historically entrenched discrimination, redress injustices, and facilitate healing and well-being of diverse groups at sites like LBH.

Publication Type

Journal article.

<172>

Accession Number

20203570934

Author

Nguyen Thi Thanh Van; Vrana, V.; Nguyen Thien Duy; Doan Xuan Huy Minh; Pham Tien Dzung; Mondal, S. R.; Subhankar Das

Title

The role of human-machine interactive devices for post-COVID-19 innovative sustainable tourism in Ho Chi Minh City, Vietnam.

Source

Sustainability; 2020. 12(22). 134 ref.

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Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  In this research article, we aim to study the proposed role of human-machine interactive (HMI) technologies, including both artificial intelligence (AI) and virtual reality (VR)-enabled applications, for the post-COVID-19 revival of the already depleted tourism industry in Vietnam's major tourist destination and business hub of Ho Chi Minh City. The researchers aim to gather practical knowledge regarding tourists' intentions for such service enhancements, which may drive the sector to adopt a better conclusive growth pattern in post-COVID-19 times. In this study, we attempt to focus on travelers who look for paramount safety with the assurance of empathetic, personalized care in post-COVID-19 times. In the current study, the authors employ structural equation modeling to evaluate the intentions of tourists both structurally and empirically for destination tourism with data collected from tourists with previous exposure to various kinds of these devices. The study shows that human-machine interactive devices are integrating AI and VR and have a significant effect on overall service quality, leading to tourist satisfaction and loyalty. The use of such social interactive gadgets within tourism and mostly in hospitality services requires an organization to make a commitment to futuristic technologies, along with building value by enriching service quality expectations among fearful tourists. This research shows that tourists mainly focus on the use of such HMI devices from the perspective of technology acceptance factors, qualitative value-enhancing service and trustworthy information-sharing mechanisms. The concept of the tour bubble framework is also discussed in detail. The analysis of this discussion gives us a more profound understanding of the novel opportunities which various administrative agencies may benefit from to position these devices better in smart, sustainable destination tourism strategies for the future so that, collectively, service 5.0 with HMI devices can possibly bring back tourism from being disintegrated. Such service applications are the new social innovations leading to sustainable service and a sophisticated experience for all tourists.

Publication Type

  Journal article.

<173>

Accession Number

  20203568822

Author

  Firth, A. E.

Title

A putative new SARS-CoV protein, 3c, encoded in an ORF overlapping ORF3a.

Source

Journal of General Virology; 2020. 101(10):1085-1089. 25 ref.

Publisher

Microbiology Society

Location of Publisher

London

Country of Publication

UK

Abstract

Identification of the full complement of genes in severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a crucial step towards gaining a fuller understanding of its molecular biology. However, short and/or overlapping genes can be difficult to detect using conventional computational approaches, whereas high-throughput experimental approaches - such as ribosome profiling - cannot distinguish translation of functional peptides from regulatory translation or translational noise. By studying regions showing enhanced conservation at synonymous sites in alignments of SARS-CoV-2 and related viruses (subgenus Sarbecovirus) and correlating the results with the conserved presence of an open reading frame (ORF) and a plausible translation mechanism, a putative new gene - ORF3c - was identified. ORF3c overlaps ORF3a in an alternative reading frame. A recently published ribosome profiling study confirmed that ORF3c is indeed translated during infection. ORF3c is conserved across the subgenus Sarbecovirus, and encodes a 40-41 amino acid predicted transmembrane protein.

Publication Type

Journal article.

<174>

Accession Number

20203567980

Author

Fernandez-Aranda, F.; Munguia, L.; Mestre-Bach, G.; Steward, T.; Etxandi, M.; Baenas, I.; Granero, R.; Sanchez, I.; Ortega, E.; Andreu, A.; Moize, V. L.; Fernandez-Real, J. M.; Tinahones, F. J.; Dieguez, C.; Fruhbeck, G.; Grange, D. le; Tchanturia, K.; Karwautz, A.; Zeiler, M.; Favaro, A.; Claes, L.; Luyckx, K.; Shekriladze, I.; Serrano-Troncoso, E.; Rangil, T.; Meler, M. E. L.; Soriano-Pacheco, J.; Carceller-Sindreu, M.; Bujalance-Arguijo, S.; Lozano, M.; Linares, R.; Gudiol, C.; Carratala, J.; Sanchez-Gonzalez, J.; Machado, P. PP. PP.; Hakansson, A.; Tury, F.; Paszthy, B.; Stein, D.; Papezova, H.; Bax, B.; Borisenkov, M. F.; Popov, S. V.; Kim, Y. R.; Nakazato, M.; Godart, N.; Voren, R. van; Ilnytska, T.; Chen, J.; Rowlands, K.; Treasure, J.; Jimenez-Murcia, S.

Title

COVID isolation eating scale (CIES): analysis of the impact of confinement in eating disorders and obesity - a collaborative international study. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

European Eating Disorders Review; 2020. 28(6):871-883.

Publisher

Wiley

Location of Publisher

Chichester

Country of Publication

UK

Abstract

Confinement during the COVID-19 pandemic is expected to have a serious and complex impact on the mental health of patients with an eating disorder (ED) and of patients with obesity. The present manuscript has the following aims: (1) to analyse the psychometric properties of the COVID Isolation Eating Scale (CIES), (2) to explore changes that occurred due to confinement in eating symptomatology; and (3) to explore the general acceptation of the use of telemedicine during confinement. The sample comprised 121 participants (87 ED patients and 34 patients with obesity) recruited from six different centres. Confirmatory Factor Analyses (CFA) tested the rational-theoretical structure of the CIES. Adequate goodness-of-fit was obtained for the confirmatory factor analysis, and Cronbach alpha values ranged from good to excellent. Regarding the effects of confinement, positive and negative impacts of the confinement depends of the eating disorder subtype. Patients with anorexia nervosa (AN) and with obesity endorsed a positive response to treatment during confinement, no significant changes were found in bulimia nervosa (BN) patients, whereas Other Specified Feeding or Eating Disorder (OSFED) patients endorsed an increase in eating symptomatology and in psychopathology. Furthermore, AN patients expressed the greatest dissatisfaction and accommodation difficulty with remote therapy when compared with the previously provided face-to-face therapy. The present study provides empirical evidence on the psychometric robustness of the CIES tool and shows that a negative confinement impact was associated with ED subtype, whereas OSFED patients showed the highest impairment in eating symptomatology and in psychopathology.

Publication Type

Journal article.

<175>

Accession Number

20203566502

Author

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171

Donma, M. M.; Donma, O.

Title

The effects of Allium sativum on immunity within the scope of COVID-19 infection.

Source

Medical Hypotheses; 2020. 144.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The severity of coronavirus disease 2019 (COVID-19) infection is quite variable and the manifestations varies from asymptomatic disease to severe acute respiratory infection. Fever, dry cough, dyspnea, myalgia, fatigue, loss of appetite, olfactory and gustatory dysfunctions are the most prevalent general symptoms. Decreased immune system cells such as suppressed regulatory T cells, cytotoxic and helper T cells, natural killer cells, monocytes/macrophages and increased proinflammatory cytokines are the characteristic features. Compounds derived from Allium sativum (garlic) have the potential to decrease the expression of proinflammatory cytokines and to reverse the immunological abnormalities to more acceptable levels. Allium sativum is suggested as a beneficial preventive measure before being infected with SARS-CoV-2 virus. Allium sativum is a functional food well-known for its immunomodulatory, antimicrobial, antiinflammatory, antimutagenic, antitumor properties. Its antiviral efficiency was also demonstrated. Some constituents of this plant were found to be active against protozoan parasites. Within this context, it appears to reverse most immune system dysfunctions observed in patients with COVID-19 infection. The relations among immune system parameters, leptin, leptin receptor, adenosin mono phosphate-activated protein kinase, peroxisome proliferator activated receptor-gamma have also been interpreted. Leptin's role in boosting proinflammatory cytokines and in appetite decreasing suggest the possible beneficial effect of decreasing the concentration of this proinflammatory adipose tissue hormone in relieving some symptoms detected during COVID-19 infection. In conclusion, Allium sativum may be an acceptable preventive measure against COVID-19 infection to boost immune system cells and to repress the production and secretion of proinflammatory cytokines as well as an adipose tissue derived hormone leptin having the proinflammatory nature.

Publication Type

Journal article.

<176>

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172

Accession Number

  20203566369

Author

  Haggag, Y. A.; El-Ashmawy, N. E.; Okasha, K. M.

Title

  Is hesperidin essential for prophylaxis and treatment of COVID-19 infection?

Source

  Medical Hypotheses; 2020. 144.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  SARS-CoV-2 or COVID-19 is representing the major global burden that implicated more than 4.7 million infected cases and 310 thousand deaths worldwide in less than 6 months. The prevalence of this pandemic disease is expected to rise every day. The challenge is to control its rapid spread meanwhile looking for a specific treatment to improve patient outcomes. Hesperidin is a classical herbal medicine used worldwide for a long time with an excellent safety profile. Hesperidin is a well-known herbal medication used as an antioxidant and anti-inflammatory agent. Available shreds of evidence support the promising use of hesperidin in prophylaxis and treatment of COVID 19. Herein, we discuss the possible prophylactic and treatment mechanisms of hesperidin based on previous and recent findings. Hesperidin can block coronavirus from entering host cells through ACE2 receptors which can prevent the infection. Anti-viral activity of hesperidin might constitute a treatment option for COVID-19 through improving host cellular immunity against infection and its good anti-inflammatory activity may help in controlling cytokine storm. Hesperidin mixture with diosmin co-administrated with heparin protect against venous thromboembolism which may prevent disease progression. Based on that, hesperidin might be used as a meaningful prophylactic agent and a promising adjuvant treatment option against SARS-CoV-2 infection.

Publication Type

  Journal article.

<177>

Accession Number

20203566357

Author

Carvalho, S. F. G.; Vieira, T. M.; Moura, A. P. V.; Andrade, M. C.

Title

Should an intersection between visceral leishmaniasis endemicity and the COVID-19 pandemic be considered?

Source

Medical Hypotheses; 2020. 144. 9 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The COVID-19 pandemic caused by the infection with the novel Coronavirus SARS-CoV-2, revealed individual and global vulnerabilities, in which we highlight the social, economic, and political aspects and the health systems' organization in the countries. Brazil remains with a high transmission rate and presents a centripetal distribution as observed through a more sustained growth in the number of municipalities affected, outlining a profile of invasion of poor communities. Several vulnerabilities overlap with precarious housing conditions, lack of basic sanitation, malnutrition, and endemicity for neglected chronic diseases such as visceral leishmaniasis (VL). COVID-19 and VL evidently do not share clinical features, but exactly because of the distinct immunopathogenesis between the diseases, patients with VL may present a vulnerability in the immune system against antiviral responses. Considering that VL susceptibility seems to be related to an inefficient and polarized immune response, it is likely that in endemic areas, the overlap of social weaknesses added to individual vulnerability by immune polarization may aggravate the COVID-19 condition. In this sense, we reinforce that possible relationships between endemic neglected diseases such as VL and pandemic SARS-CoV-2 infection need to be further considered and investigated.

Publication Type

Journal article.

<178>

Accession Number

20203565721

Author

  El-Masry, I.; Dobschuetz, S. von; Plee, L.; Larfaoui, F.; Yang, Z.; Song, J.; Kalpravidh, W.; Sumption, K.; Pfeiffer, D.; Calvin, S.; Roberts, H.; Lorusso, A.; Barton-Behravesh, C.; Zheng ZengRen

Title

  Exposure of humans or animals to SARS-CoV-2 from wild, livestock, companion and aquatic animals. Qualitative exposure assessment.

Source

  Exposure of humans or animals to SARS-CoV-2 from wild, livestock, companion and aquatic animals. Qualitative exposure assessment; 2020. iii + 72 pp. many ref.

Publisher

  FAO

Location of Publisher

  Rome

Country of Publication

  Italy

Abstract

  This work describes of the risk of human or animal exposure to SARS-CoV-2 through contact with, handling or consumption of wild, domestic and aquatic animal species or their products; current knowledge gaps regarding the zoonotic origin or animal-human spillover of SARS-CoV-2 and recommendations for priority studies; evidence for SARS-CoV-2 susceptibility of different animal species; evidence-based recommendations on how to prioritize animal species for targeted field investigations or research studies and recommendations for targeted One Health investigations and epidemiological, laboratory, anthropological or seasonality studies to fill critical knowledge gaps. Understanding the risk of exposure of humans or animals to SARS-CoV-2 from animals and their products is essential for containing virus spread, prioritizing research, protecting food systems and informing national One Health investigations and mitigation measures.

Publication Type

  Book.

<179>

Accession Number

  20203563521

Author

  Mokhtarzadeh, F.

Title

   A global vector autoregression model for softwood lumber trade.

Source

   International trade in forest products: lumber trade disputes, models and examples; 2021. 174-193. 27 ref.

Publisher

   CABI

Location of Publisher

   Wallingford

Country of Publication

   UK

Abstract

   A novel econometric approach is developed in this chapter, namely, the Global Vector Autoregressive (GVAR) model. It provides a comprehensive framework for analyzing the country-level impacts of various domestic, foreign, and/or global shocks on softwood lumber trade. The GVAR approach is applied to Canada-U.S. trade in softwood lumber and used to analyze the effect of external shocks on Canadian lumber prices. Findings indicate that Canada's export prices are positively correlated to U.S. housing starts and real GDP. Further, using impulse response functions, it is used to examine the effects on regional lumber export prices in Canada of: (1) a change in U.S. housing starts; (2) a reduction in U.S. GDP by one standard deviation; (3) a COVID-19 induced decline in U.S. GDP (of three standard deviations); (4) an increase in global oil prices; and, in the Appendix, (5) an increase in the long-term interest rate. Price impacts vary a great deal by Canadian region depending on the type of shock, with the propagation mechanism in Alberta significantly different from that in other regions. For example, with an oil price shock and because Alberta is a major exporter of oil, the lumber export price remains high even as the shock dissipates over time.

Publication Type

   Book chapter.

<180>

Accession Number

   20203559374

Author

   Kim JungKeun; Lee, J. C.

Title

Effects of COVID-19 on preferences for private dining facilities in restaurants.

Source

Journal of Hospitality and Tourism Management; 2020. 45:67-70. 22 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The present research investigates the effects of the perceived threat of COVID-19 and the salience of the virus on consumers' preference for private dining facilities. Integrating the theories about the psychology of risk with research on preference for private dining, we predict that the prominence of the virus systematically increases preference for private dining facilities. Four studies (N = 812) consistently support our prediction. Consumers who perceive the threat of the COVID-19 pandemic to be high (vs. low) evaluate the private dining restaurant (Study 1) and the private dining table (Study 2) highly. Moreover, two experiments showed that the salience of the virus generates a preference for the private (vs. non-private) dining table (Study 3) and for the restaurant with private rooms (Study 4). This research provides a strategy for the restaurant industry to recover from the negative effects of the COVID-19 pandemic.

Publication Type

Journal article.

<181>

Accession Number

20203551431

Author

Rahman, T.; Sobur, A.; Islam, S.; Ievy, S.; Hossain, J.; Zowalaty, M. E. E.; Rahman, A. T.; Ashour, H. M.

Title

Zoonotic diseases: etiology, impact, and control.

Source

Microorganisms; 2020. 8(9). 242 ref.

Publisher

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MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Most humans are in contact with animals in a way or another. A zoonotic disease is a disease or infection that can be transmitted naturally from vertebrate animals to humans or from humans to vertebrate animals. More than 60% of human pathogens are zoonotic in origin. This includes a wide variety of bacteria, viruses, fungi, protozoa, parasites, and other pathogens. Factors such as climate change, urbanization, animal migration and trade, travel and tourism, vector biology, anthropogenic factors, and natural factors have greatly influenced the emergence, re-emergence, distribution, and patterns of zoonoses. As time goes on, there are more emerging and re-emerging zoonotic diseases. In this review, we reviewed the etiology of major zoonotic diseases, their impact on human health, and control measures for better management. We also highlighted COVID-19, a newly emerging zoonotic disease of likely bat origin that has affected millions of humans along with devastating global consequences. The implementation of One Health measures is highly recommended for the effective prevention and control of possible zoonosis.

Publication Type

Journal article.

<182>

Accession Number

20203537864

Author

Sharad Joshi; Ankit Bhatia; Purneetha Singh; Nitesh Tayal

Title

Pneumomediastinum as a presenting feature of COVID-19 - an observation.

Source

Journal of the Association of Physicians of India; 2020. 68(October):81-82.

Publisher

Association of Physicians of India

Location of Publisher

Mumbai

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178

Country of Publication

India

Abstract

This article aims to highlight an event of a COVID-19 pneumonia presenting as a Spontaneous Pneumomediastinum (SPM) and discuss the possible mechanism and prognosis of this association. A 67 year old gentleman, known hypertensive and a recently diagnosed Diabetic, presented to the Emergency Department of a tertiary care hospital, with complaints of acute onset chest tightness and breathlessness of 1 day duration, which had worsened over the last few hours. At presentation he had tachycardia (HR 110 beats/min), tachypnoea (RR - 26/min), blood pressure was 140/90 mmHg, and temperature was normal, with an oxygen saturation of 90% on room air. He was immediately started on oxygen with Non Rebreather mask, following which saturation improved to 94%. Random blood glucose was 285mg/dl and a complete blood count showed significant leukocytosis (Total leukocyte count 21,900 cells per uL), with neutrophilia (93%) and lymphopenia (3%). There was evidence of acute kidney injury (urea - 74.8 mg/dl, Creatinine - 2.4 mg/dl) and inflammatory markers were markedly elevated, with C Reactive Protein -263.4 mg/L and ferritin - 1559 ng/mL. D-dimer and NT-pro BNP were done, which were elevated as well (5043 ng/mL and 10400 pg/mL respectively). High Resolution Computerised Tomography (HRCT) thorax was done which showed diffuse ground glass opacities with interlobular septal thickening. Note of pneumomediastinum and pneumopericardium was also made. Due to the ongoing pandemic and the patients symptom profile, a COVID-19 RT-PCR was sent which was positive. Patient deteriorated rapidly in the emergency following which he was intubated and put into mechanical ventilation. He succumbed within 6 hours of arrival to the hospital.

Publication Type

Correspondence.

<183>

Accession Number

20203529133

Author

Sobang, Y. U. L.; Maranatha, G.; Paulus, C. A.; Basuki, T.

Title

Community adaptation strategy affected by COVID 19 pandemic in the fulfilling of family food.

Source

AES Bioflux; 2020. 12(2):170-177. 25 ref.

Publisher

Bioflux

Location of Publisher

Cluj-Napoca

Country of Publication

Romania

Abstract

Food is a basic human need that should be fulfilled in terms of quality, quantity and sustainability. The Covid 19 pandemic influences human life in aspect such as the availability of food, especially in economically categorized low-income families. This study aims to describe the community adaptation strategy in fulfilling family food during the Covid 19 pandemic. Furthermore, it was conducted at Kupang Regency using survey methods with interview techniques and Focus Group Discussion (FGD) analysis. A total of 60 respondents were determined purposively, and data which includes, household source of food supply, consumption patterns, household expenditure, and respondents' adaptation strategies were collected. The results showed that 70% of food sources come from the garden, 25% from market, and 5% outside the garden. In addition, 65% of respondents experienced changes in their pattern of consumption, while 30% did not change, and 5% were erratic. It was further revealed that 60% of respondents did not experience an increase in expenditure. However, 40% increased. Therefore, cultivation of crop for family food is increasing as adaptation strategies are faced with the effects of Covid 19 pandemic.

Publication Type

Journal article.

<184>

Accession Number

20203505676

Title

Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3):article 1-article 8.

Publisher

American Agricultural Economics Association

Location of Publisher

Ames

Country of Publication

USA

Abstract

The articles in this theme discuss the many ways in which COVID-19 has affected the U.S. agriculture industry. In particular, the articles explore the demand and supply-side effects on domestic and immigrant agricultural labor, disruptions in agricultural supply chains, and short and long-term changes in consumer food purchasing behavior.

Publication Type

Journal issue.

<185>

Accession Number

20203505667

Author

Pena-Levano, L.; Burney, S.; Melo, G.; Escalante, C.

Title

COVID-19: effects on U.S. labor, supply chains and consumption imagery article. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3).

Publisher

American Agricultural Economics Association

Location of Publisher

Ames

Country of Publication

USA

Publication Type

Journal article.

<186>

Accession Number

  20203490669

Author

  Bingaman, J.

Title

  Australian football in America during COVID-19. (Special Issue: Sport and the coronavirus crisis.)

Source

  International Journal of Sport Communication; 2020. 13(3):533-540. 37 ref.

Publisher

  Human Kinetics

Location of Publisher

  Leeds

Country of Publication

  UK

Abstract

  Despite its relative obscureness in the United States, Australian football has graced American airwaves since the 1990s. The outbreak of COVID-19 in the spring of 2020 paved the way for the Australian Football League to be one of the only professional sports leagues broadcasting games live on American television. Although the Australian Football League would later suspend the season, for at least one weekend, Australian football was the most popular sport in the United States. This short essay pulls from news articles, social media posts, and existing literature to explore this unique time in the American sports landscape by investigating the response to Australian football from fans, the response from media outlets, and the future directions of Australian football in the United States. The increase in exposure could help the Australian Football League become the next big spectator sport in the United States as well as help grow the game at a local, grassroots level.

Publication Type

  Journal article.

<187>

Accession Number

  20203490299

Author

  Bailly, C.; Vergoten, G.

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Title

  Glycyrrhizin: an alternative drug for the treatment of COVID-19 infection and the associated respiratory syndrome?

Source

  Pharmacology and Therapeutics; 2020. 214. many ref.

Publisher

  Elsevier

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  Safe and efficient drugs to combat the current COVID-19 pandemic are urgently needed. In this context, we have analyzed the anti-coronavirus potential of the natural product glycyrrhizic acid (GLR), a drug used to treat liver diseases (including viral hepatitis) and specific cutaneous inflammation (such as atopic dermatitis) in some countries. The properties of GLR and its primary active metabolite glycyrrhetinic acid are presented and discussed. GLR has shown activities against different viruses, including SARS-associated Human and animal coronaviruses. GLR is a non-hemolytic saponin and a potent immuno-active anti-inflammatory agent which displays both cytoplasmic and membrane effects. At the membrane level, GLR induces cholesterol-dependent disorganization of lipid rafts which are important for the entry of coronavirus into cells. At the intracellular and circulating levels, GLR can trap the high mobility group box 1 protein and thus blocks the alarmin functions of HMGB1. We used molecular docking to characterize further and discuss both the cholesterol- and HMG box-binding functions of GLR. The membrane and cytoplasmic effects of GLR, coupled with its long-established medical use as a relatively safe drug, make GLR a good candidate to be tested against the SARS-CoV-2 coronavirus, alone and in combination with other drugs. The rational supporting combinations with (hydroxy)chloroquine and tenofovir (two drugs active against SARS-CoV-2) is also discussed. Based on this analysis, we conclude that GLR should be further considered and rapidly evaluated for the treatment of patients with COVID-19.

Publication Type

  Journal article.

<188>

Accession Number

  20203473924

Author

Zhong TaiYang; Scott, S.

Title

"Informalization" of food vending in china from a tool for food security to employment promotion.

Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(4):135-137. 3 ref.

Publisher

New Leaf Associates

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

The central government of China required local governments to allow street food vending on May 27, 2020, which is essentially a policy of "informalization" in urban food governance. Before this, some local governments such as Nanjing Municipal Government had already relaxed the implementation of regulations for street food vending. The original purpose of allowing street food vending was to help ensure food security. Currently, it is used for increasing informal employment as a response to unemployment caused by the COVID-19 pandemic. The temporary informalization is important for mitigating food insecurity, which demonstrates China's adaptability in contexts of crisis.

Publication Type

Journal article.

<189>

Accession Number

20203578874

Author

Li QianQian; Yang YanHong; Chang JinXia; Hu WeiMin

Title

Discussion of application of COVID-19 in medical immunology teaching. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2205-2207. 15 ref.

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Publisher

Editorial Board of Chinese Journal of Immunology

Location of Publisher

Changchun

Country of Publication

China

Abstract

After outbreak of COVID-19, it is worth exploring how to use the hot spot effect to serve teaching of Medical Immunology. In this paper, we use a teaching method that combines theoretical knowledge with COVID-19, make full use of the new epidemic situation from different entry points to inject continuous motivation for students' learning. To improve the effect of theory teaching and stimulate students' enthusiasm for scientific research.

Publication Type

Journal article.

<190>

Accession Number

20203578873

Author

Gao JianHua; Yu ChunHua; Ma Man

Title

Exploration and practice of online teaching of Medical Immunology under COVID-19. [Chinese]

Source

Chinese Journal of Immunology; 2020. 36(18):2200-2204. 10 ref.

Publisher

Editorial Board of Chinese Journal of Immunology

Location of Publisher

Changchun

Country of Publication

China

Abstract

This study explored and practiced the online teaching of Medical Immunology under COVID-19, two classes of 2019 clinical medicine majors in our school were selected, with a total of 79 students as practical objects. The course adopts an online and offline mixed teaching mode combining Superstar Learn Center+Tencent Live Class, Provincial quality online sharing courses were used as a self-learning platform for students, and Tencent Live Classroom was used as a platform for key points, difficult knowledge teaching, student participation and teacher-student interaction;teaching implementation process mainly includes four organic components:self- study before class, participation in class, consolidation after class, and assessment system. Make sure that teachers are not only imparters of knowledge, but also organizers and leaders of learning who urge each student to participate in teaching process throughout, and form a teaching ecology with students as the main body, turn the result assessment into a process assessment, and realize the transformation from process of imparting knowledge to process of training students' learning ability and thinking quality;strive to build a network, information, personalized teaching system, integrate the teaching of ideological and political courses and professional knowledge organically and practice teaching job responsibility. Practical results show that online and offline mixed teaching models have achieved good results in stimulating learning interest, cultivating learning self-confidence, strengthening teamwork, training organizational expression skills, and cultivating quality of thinking and has achieved the effect equivalent to classroom teaching.

Publication Type

Journal article.

<191>

Accession Number

20203578832

Author

Csiszar, A.; Jakab, F.; Valencak TeresaG.; Lanszki, Z.; Toth, G. E.; Kemenesi, G.; Tarantini, S.; Fazekas-Pongor, V.; Ungvari, Z.

Title

Companion animals likely do not spread COVID-19 but may get infected themselves.

Source

GeroScience; 2020. 42(5):1229-1236. 42 ref.

Publisher

Springer

Location of Publisher

Dordrecht

Country of Publication

Netherlands

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Abstract

  Coronavirus disease 2019 (COVID-19) is a highly contagious infectious disease caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). From the epidemiological data, the picture emerges that the more severe etiopathologies among COVID-19 patients are found in elderly people. The risk of death due to COVID-19 increases exponentially with age. Eight out of 10 COVID-19 related deaths occur in people older than 65 years of age. Older patients with comorbid conditions such as hypertension, heart failure, diabetes mellitus, asthma, chronic obstructive pulmonary disease, and cancer have a much higher case fatality rate. Governments and public health authorities all over the world have realized that protections of vulnerable older adults should be a priority during the COVID-19 pandemic. COVID-19 is a zoonotic disease. The SARS-CoV-2 virus was originally transmitted likely from a bat or a pangolin to humans. Recent evidence suggests that SARS-CoV-2, similar to other coronaviruses, can infect several species of animals, including companion animals such as dogs, cats, and ferrets although their viral loads remain low. While the main source of infection transmission therefore is human to human, there are a few rare cases of pets contracting the infection from a SARS-CoV-2-infected human. Although there is no evidence that pets actively transmit SARS-CoV-2 via animal-to-human transmission, senior pet ownership potentially may pose a small risk to older adults by (1) potentially enabling animal-to-human transmission of SARS-CoV-2 in the most vulnerable population and (2) by increasing the exposition risk for the elderly due to the necessity to care for the pet and, in the case of dogs, to take them outside the house several times per day. In this overview, the available evidence on SARS-CoV-2 infection in pets is considered and the potential for spread of COVID-19 from companion animals to older individuals and the importance of prevention are discussed.

Publication Type

  Journal article.

<192>

Accession Number

  20203578805

Author

  Rodrigues, D.; Machado-Rodrigues, A. M.; Padez, C.

Title

  Parental misperception of their child's weight status and how weight underestimation is associated with childhood obesity. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

  American Journal of Human Biology; 2020. 32(5).

Publisher

  Wiley

Location of Publisher

Hoboken

Country of Publication

 USA

Abstract

Objectives: Obesity is a major public health concern worldwide. This study aims to investigate the accuracy of parental perception of child's weight and related factors as well as how underestimation is associated with the prevalence of childhood obesity. Methods: Data from 793 parents and respective children (6-10 years) were collected during the spring of 2013 and 2014. Height and weight were measured and used to calculate body mass index and obesity was classified using the International Obesity Task Force. Parents' perception of child's weight and socio-demographic characteristics were accessed by a questionnaire. Statistical tests were used, controlling for biological and social covariates. Results: About 33% of parents misperceived their child's weight, of which 93% underestimated it. Different factors were found associated with greater parental underestimation according to children's weight status (ie, younger age) and sex (ie, higher mother's BMI, lower parental education, and household income for girls; living in an urban place for boys). Underestimation among girls, compared to boys, was more associated with socio-economic features of the family. For both sexes, children with excess weight were more likely to be underestimated by their parents. Parents who underestimated their child's weight were 10 to 20 times more likely to have an obese child. Conclusions: Findings suggest a social desirability bias in parental reports of child weight status. While some parents recognize their child's weight, others may feel embarrassed to discuss the fact that their child is overweight/obese and may feel reluctant in seeking the advice of a health care professional.

Publication Type

 Journal article.

<193>

Accession Number

 20203578803

Author

 Jyoti Mishra; Abhilasha Tomar; Manju Puri; Anju Jain; Saraswathy, K. N.

Title

 Trends of folate, vitamin B12, and homocysteine levels in different trimesters of pregnancy and pregnancy outcomes. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

 American Journal of Human Biology; 2020. 32(5). many ref.

Publisher

 Wiley

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188

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Objective: To evaluate the effect of folate and vitamin B12 levels on pregnancy progression and outcomes. Methods: The present study is a prospective follow up study of 100 pregnant women. Biochemical investigations (plasma homocysteine, folate, and vitamin B12 levels) were performed on all pregnant women in first, second, and third trimesters. Nonparametric tests were used to compare the differences in median levels and odds ratio analysis for the assessment of the risk between the selected biomarkers and adverse pregnancy progression and outcomes. Results: The pregnant women at their first antenatal care visit were found to be predominantly folate replete (97%) and vitamin B12 deficient (60%). Hyperhomocysteinemia in first and second trimesters was found to pose more than 3-fold increased risk for adverse pregnancy outcomes (P = .006 and .0002, respectively). Low birth weight (LBW) was found to be the most common adverse pregnancy outcome (52%), and was significantly associated with vitamin B12 deficiency in the first and second trimesters (82%, P < .0001; 71.4%, P = .04, respectively). Conclusion: The vitamin B12 deficiency is more common among Indian pregnant women as compared to folate deficiency. Hyperhomocysteinemia is an independent risk factor for pregnancy complications. Vitamin B12 deficiency in first and second trimesters is associated with LBW babies.

Publication Type

Journal article.

<194>

Accession Number

20203578801

Author

Sanchez-Escobedo, S.; Azcorra, H.; Bogin, B.; Hoogesteijn, A. L.; Samano, R.; Varela-Silva, M. I.; Dickinson, F.

Title

Birth weight, birth order, and age at first solid food introduction influence child growth and body composition in 6- to 8-year-old Maya children: the importance of the first 1000 days of life. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

American Journal of Human Biology; 2020. 32(5).

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Objectives: To analyze the relationship of birth weight, birth order, breastfeeding duration, and age of introduction of solid foods with height, fat mass, and fat-free mass in a sample of Maya children when aged 6 to 8 years old. Methods: We collected data on anthropometry, body composition, children's birth weight, birth order, early feeding practices, and household socioeconomic characteristics in a sample of 260 Maya children aged 6 to 8 years living in Merida and Motul, two cities in Yucatan, Mexico. Multiple regression models were performed to identify variables associated with height-for-age (HAZ), fat mass index (FMI), and fat-free mass index (FFMI). The predictors included in the models were birth weight (kg), birth order, duration of breastfeeding (months), age at introduction of solid foods (months), maternal age (years), and height (cm). Models were adjusted for the influence of children's age and sex, maternal educational level, and household overcrowding. Results: HAZ was positively associated with child birthweight and maternal height and age, but inversely associated with birth order and age of introduction of solid foods. FMI was positively associated with birth weight, maternal age, and height, and negatively associated with birth order. FFMI was positively associated with maternal age and birth weight. Conclusions: These results are evidence of the importance of the first 1000 days of life for the growth and body composition of Maya children and contributed to understand the development of nutritional dual burden in this population.

Publication Type

Journal article.

<195>

Accession Number

20203578800

Author

Cossio-Bolanos, M. A.; Sanchez-Macedo, L.; Andruske, C. L.; Fuentes-Lopez, J.; Limachi-Flores, M.; Apaza-Cruz, J.; Mamani-Velasquez, D.; Mamani-Luque, O.; Sulla-Torres, J.; Gomez-Campos, R.

Title

Physical growth and body adiposity patterns in children and adolescents at high altitudes in Peru: proposed percentiles for assessment. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

American Journal of Human Biology; 2020. 32(5).

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190

Publisher

  Wiley

Location of Publisher

  Hoboken

Country of Publication

  USA

Abstract

  Objectives: This study's purpose was to compare physical growth (PG) patterns of children and adolescents living at high elevations with those of other geographic regions, relate body adiposity indicators, and develop percentile reference tables for assessing physical growth and body adiposity. Methods: The sample included 1536 children and adolescents ages 5.0 to 17.9 years from Puno (Peru) located between 3821 and 4349 m above sea level. Weight, height, arm and waist circumferences (WC), and three skinfolds measurements were recorded. Body mass index (BMI) and waist-height Index (WHI) were calculated. Results: PG patterns for children living at a high altitude reflected similar values for weight, height, and arm circumference (AC) to those of their counterparts living in Puno (Peru) and La Paz (Bolivia). When compared with children living at moderate altitudes in Peru, they showed slightly lower PG values. BMI explained between 41% and 64% of the variance in sum of the skinfolds, while WC explained between 47% and 66%. HWI was not a strong predictor of variation in sum of skinfolds. Percentiles were generated for WC and the sum of skinfolds. Conclusion: Weight, height, and, arm and waist circumference patterns for children and adolescents living at high altitudes were similar to those of La Paz (Bolivia). WC and the sum of the skinfolds were better indicators for analyzing abdominal obesity compared to BMI and WHI. The percentiles proposed may be a useful tool for identifying high risk of developing overweight disorders in pediatric populations living at high altitudes.

Publication Type

  Journal article.

<196>

Accession Number

  20203578799

Author

  Pruszkowska-Przybylska, P.; Sitek, A.; Rosset, I.; Sobalska-Kwapis, M.; Slomka, M.; Strapagiel, D.; Zadzinska, E.; Morling, N.

Title

  Association of saliva 25(OH)D concentration with body composition and proportion among pre-pubertal and pubertal Polish children. (Special Issue: Human biologists Confront the COVID-19 Pandemic.)

Source

American Journal of Human Biology; 2020. 32(5).

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Objectives: Due to increasing problems with obesity and vitamin D deficiency among children, studies that tackle both problems together are needed. Methods: Data were collected from 182 randomly selected children aged 6-13 years in primary schools in central Poland. Measures included anthropometric dimensions, body composition, questionnaires completed by participants' parents, and saliva samples. The level of 25(OH)D was assessed from the saliva samples using an enzyme-linked immunosorbent assay kit. The children were divided into two groups: pre-pubertal (girls below 10 years and boys below 11 years) and pubertal individuals (girls above 10 years and boys above 11 years). Results: The 25(OH)D concentrations were higher in late spring (June) among pre-pubertal children than in the autumn (November-December) among pubertal children. The level of 25(OH)D was positively correlated with body cell mass (BCM,%) among all children (pubertal: R = 0.20, P = .044; pre-pubertal: R = 0.23, P = .041) and inversely associated with waist-to-hip ratio (WHR) among pubertal children of both sexes (R = -0.25; P = .031). The stepwise regression analysis revealed that investigation in spring (June) and breastfeeding was associated with increased muscle mass (MM, %) (beta = 0.253, P = .003 and beta = 0.225, P = .005, respectively) and total body water (TBW, %) (beta = 0.276, P = .004 and beta = 0.246, P = .011, respectively) and was associated with decreased body mass index (BMI; beta = -0.222, P = .024 and beta = -0.269, P = .009, respectively) and fat mass (%) (beta = -0.288, P = .003 and beta = -0.266, P = .005, respectively). Conclusions: Season of salivary sampling and breastfeeding status were more strongly associated with body components, BMI and WHR, than 25(OH)D concentrations.

Publication Type

Journal article.

<197>

Accession Number

20203578745

Author

Bardin, P. G.; Johnston, S. L.

Title

Attenuating COVID-19 infection and inflammation: lessons from asthma.

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Source

Publisher

Location of Publisher

Country of Publication

Abstract

In the turmoil surrounding the current global pandemic, it is often forgotten that coronavirus disease 2019 (COVID-19) is a common cold virus, albeit with a crown. Infection by COVID-19 has several unique features, but two key aspects dominate the disease. First, as a common cold virus, it has the classic ability of this virus group to spread very readily person-to-person despite virtually any intervention aimed at eradicating transmission. Second, initial upper airway involvement progresses in susceptible persons to lung infection with uncontrolled virus loads leading to mounting inflammation resulting in respiratory impairment and failure. What is not readily appreciated is that asthma exacerbations occur in an almost identical setting: a common cold virus infection in susceptible persons is followed by increased virus loads, lung infection and inflammation with subsequent respiratory compromise. Given these similarities, are there valuable lessons applicable to COVID-19 to be learned from a long history of effective treatment for virus-induced asthma exacerbations? More than 200 different viruses can cause a common cold but rhinoviruses, coronaviruses, respiratory syncytial and parainfluenza viruses are implicated in the majority of colds. Until recently, their importance as infectious agents was underestimated despite landmark studies in the early 1990s demonstrating that asthma exacerbations are predominantly triggered by common colds. Studies in individuals with asthma demonstrated that spread to the lung was followed by inflammation, airway obstruction, heightened responsiveness and respiratory compromise. However, at an early stage, it was clear that preventing infection was challenging and specific treatments for common cold viruses have remained elusive. Other strategies had to be devised in order to counter acute detrimental effects of these viruses on the lung. Asthma exacerbations can lead to death, often in young persons, and anti-inflammatory treatment with oral or parenteral corticosteroids (CS) effectively mitigate exacerbations. Blunting the detrimental inflammatory impacts of virus infection made it possible to reduce mortality and consequently CS have remained in widespread use to treat virus-associated asthma exacerbations. A key message has been that controlling inflammation was sufficient to restore reasonable lung function whilst host immune responses ultimately eliminated the virus. Understandably, much scientific endeavour and the public imagination have been fixated on the goal of rapid COVID-19 vaccine development. However, this is challenging and success is not guaranteed (although potent induction of neutralizing antibody responses in early reports is an encouraging sign). Attempts to find effective vaccines fail. For example, despite spirited efforts, no vaccine has proven effective to date to prevent human immunodeficiency virus (HIV) infection. Given the considerable obstacles facing vaccine developers, strategies aimed at blunting COVID-19-associated inflammation should also be deliberately pursued. Are there established as well as novel anti-inflammatory compounds that can be used in COVID-19 infection? Currently, only systematic CS are recommended to treat patients who are severely ill with COVID-19 infection as they have been clearly shown to reduce mortality in those needing respiratory support and to reduce the need for mechanical ventilation. Other compounds considered for repurposing include chloroquine/hydroxychloroquine, Janus kinase (JNK) inhibitors (baricitinib and tofacitinib), interleukin (IL)-6 inhibitors (tocilizumab and sarilumab), IL-1 inhibitors (anakinra and canakinumab) and colchicine. Many of these compounds are being evaluated in rigorous randomized controlled trials (RCT). Hydroxychloroquine has been shown to be ineffective when given late in severe disease in hospitalized patients, likely because any antiviral/anti-inflammatory effects

are outweighed by adverse events in these very ill people. Tocilizumab, in particular, has shown early promise as a way of reducing IL-6-mediated hyperinflammation, albeit in small studies. Other compounds merit investigation including pirfenidone and colchicine, both agents with broad-ranging anti-inflammatory activities comparable to CS. Pirfenidone has also been formulated for inhalation, potentially limiting adverse effects. Baricitinib has substantial potential efficacy as it can reduce both inflammation (JNK inhibition) and virus infection (inhibits clathrin-mediated endocytosis). The need to expand pioneering research into other potentially promising compounds is urgent. A second key message that emerges from studying asthma is the importance of deficient antiviral immunity in driving inflammation and adverse clinical outcomes. Exactly the same is almost certain to be true of COVID-19. We have recently reported that adverse outcomes in males with COVID-19 are likely to be related in large part to deficient innate antiviral immune responses. Interferon (IFN)-beta has been shown to prevent adverse outcomes and enhance recovery when given early in COVID-19, and to reduce mortality when given later in severe COVID-19. We have known for 10 years that azithromycin doubles IFN production by virus-infected bronchial epithelial cells, and it has been shown both to prevent and to treat virus-induced wheezing episodes in asthma. Results of current RCT of azithromycin (to boost antiviral immunity), given early in COVID-19 when this approach is likely to have maximal benefit and thus reduce severe outcomes, are eagerly awaited. In summary, highly successful treatments of virus-associated inflammation during asthma exacerbations are those that mitigate effects of high virus loads driving lung inflammation. For COVID-19 infection, the parallels are obvious. In the context of the current pandemic, it highlights the urgent need to research and validate both existing and novel antiviral and anti-inflammatory compounds.

Publication Type

  Correspondence.

<198>

Accession Number

  20203578659

Author

  Ravichandra Ravi; Srividya Athkuri; Ponugubati, C. C.; Roopesh Borugadda; Sahithi Pamidimukkala; Abdul Afraaz

Title

  Knowledge and awareness on usage of mouth masks among dental fraternity during this pandemic COVID-19: a cross-sectional study.

Source

  Asian Journal of Medical Sciences; 2020. 11(6):9-14. 15 ref.

Publisher

  Manipal College of Medical Sciences

Location of Publisher

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194

Pokhara

Country of Publication

Nepal

Abstract

Background: The pandemic caused by novel coronavirus (SARS-CoV-2) in Wuhan, China, in December 2019 is a highly infectious disease. The World Health Organization (WHO) has declared the outbreak of Corona Virus Diseases (COVID 19) as a global public health emergency. Currently, research on novel coronaviruses is still in the primary stage. Aims and Objective: The aim of this study is to assess knowledge and awareness on the usage of mouth masks among dental fraternity during this pandemic COVID-19. Materials and Methods: A total of 507 dentists from the Andhra Pradesh (India) region completed a questionnaire-based survey on knowledge, awareness, and infection control measures, such as usage of mouth masks during the pandemic COVID -19. The questionnaire was tailored from the guidance and the information provided for healthcare workers issued by the US Centres for Disease Control and Prevention (CDC). A suitable sampling method was used for the collection of data, and the distribution of responses was presented as percentages. Explanatory statistics were performed for all groups based on the percentage of correct responses. Results: A total of 530 participated in the survey, out of which 507 dentists completely answered the survey, and the response rate was 95.6%. Among the respondents, general practitioners and postgraduates accounted for 58.8% and 41.2%, respectively. There was a statistically significant difference for all the questions solicited among the respondents. General or private practitioners seem to be more aware than postgraduates, as they have answered correctly (>65%) for almost all the questions. Conclusion: The inputs from the study help us to throw some light and fill up space where required. There is a specific and strong need to implement periodic educational programs and training sessions on infection control practices for COVID-19 among dentists in particular.

Publication Type

Journal article.

<199>

Accession Number

20203577913

Author

Meleshkina, E. P.; Bundina, O. I.

Title

Production, processing and consumption of rye grain in Russia: directions of development.

Source

Pishchevaya Promyshlennost'; 2020. (12):55-59. 13 ref.

Publisher

OOO "Infokholodtekh"

Location of Publisher

Moscow

Country of Publication

Russia

Abstract

  In order to increase the economic efficiency of production, processing of rye grain and demand for products of its processing, the cycle of production and sale of rye grain in Russia as a whole is studied from production to consumption, its problems are identified and a number of solutions are proposed to improve the efficiency of this process. Rye is a strategic, unique and potentially export grain crop. The main problem of rye production is that agricultural producers are not interested in its production, which resulted in a 9.4 - fold reduction in rye acreage in 2019 compared to 1990, a 1.2 - fold decrease in its yield, and, as a result, a 11.5-fold decrease in gross harvest. Analysis of the main indicators of production, processing and sale of rye grain and products of its processing revealed the following regularities: reduced demand-low prices for the sale of rye grain-reduced acreage and reduced yield-reduced gross harvest - low utilization of production capacities of the processing industry-an increase in the cost of rye grain processing products, which, in turn, causes a decrease in consumer demand. Therefore, the solution to the problem of shortage of rye grain lies in increasing demand for it and its processed products. Increasing the demand for products made from rye grain can be achieved by implementing a set of measures, in particular, conducting an awareness campaign among the population through the media about the usefulness of rye products, especially in terms of increasing immunity to diseases; implementing systematic marketing activities to promote unique products made from whole rye grain; organizing an Information and Advisory center "Healthy nutrition"; creating a biocluster for deep processing of rye grain; expanding the range of products made from whole rye grain, improving its quality while reducing prices; developing innovative products with pre-set properties to increase the immunity of the Russian population, focused on the prevention of diseases, including COVID-19. To do this, VNIIZ has developed a whole line of new types of bakery products made from rye flour and rye groats. The expansion of the range will help to increase the demand for rye grain, its price, expand the acreage under this crop, increase the consumption of rye grain and reduce the incidence of Russian diseases.

Publication Type

  Journal article.

<200>

Accession Number

  20203577835

Author

  Ding Zhen; Qian Hua; Xu Bin; Huang Ying; Miao Te; Yen HuiLing; Xiao ShengLan; Cui LunBiao; Wu XiaoSong; Shao Wei; Song Yan; Sha Li; Zhou Lian; Xu Yan; Zhu BaoLi; Li YuGuo

Title

  Toilets dominate environmental detection of severe acute respiratory syndrome coronavirus 2 in a hospital.

Source

  Science of the Total Environment; 2021. 753. 16 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Respiratory and fecal aerosols play confirmed and suspected roles, respectively, in transmitting severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). An extensive environmental sampling campaign of both toilet and non-toilet environments was performed in a dedicated hospital building for patients with coronavirus disease 2019 (COVID-19), and the associated environmental factors were analyzed. In total, 107 surface samples, 46 air samples, two exhaled condensate samples, and two expired air samples were collected within and beyond four three-bed isolation rooms. The data of the COVID-19 patients were collected. The building environmental design and the cleaning routines were reviewed. Field measurements of airflow and CO_2 concentrations were conducted. The 107 surface samples comprised 37 from toilets, 34 from other surfaces in isolation rooms, and 36 from other surfaces outside the isolation rooms in the hospital. Four of these samples were positive, namely two ward door handles, one bathroom toilet seat cover, and one bathroom door handle. Three were weakly positive, namely one bathroom toilet seat, one bathroom washbasin tap lever, and one bathroom ceiling exhaust louver. Of the 46 air samples, one collected from a corridor was weakly positive. The two exhaled condensate samples and the two expired air samples were negative. The fecal-derived aerosols in patients' toilets contained most of the detected SARS-CoV-2 in the hospital, highlighting the importance of surface and hand hygiene for intervention.

Publication Type

  Journal article.

<201>

Accession Number

  20203577823

Author

Zhang QianQian; Pan YuePeng; He YueXin; Walters, W. W.; Ni QianYin; Liu XuYan; Xu GuangYi; Shao JiaLi; Jiang ChunLai

Title

Substantial nitrogen oxides emission reduction from China due to COVID-19 and its impact on surface ozone and aerosol pollution.

Source

Science of the Total Environment; 2021. 753. 34 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

A top-down approach was employed to estimate the influence of lockdown measures implemented during the COVID-19 pandemic on NOx emissions and subsequent influence on surface PM2.5 and ozone in China. The nation-wide NOx emission reduction of 53.4% due to the lockdown in 2020 quarter one in China may represent the current upper limit of China's NOx emission control. During the Chinese New Year Holiday (P2), NOx emission intensity in China declined by 44.7% compared to the preceding 3 weeks (P1). NOx emission intensity increased by 20.3% during the 4 weeks after P2 (P3), despite the unchanged NO2 column. It recovered to 2019 level at the end of March (P4). The East China (22 degrees N - 42 degrees N, 102 degrees E - 122 degrees E) received greater influence from COVID-19. Overall NOx emission from East China for 2020 first quarter is 40.5% lower than 2019, and in P4 it is still 22.9% below the same period in 2019. The 40.5% decrease of NOx emission in 2020 first quarter in East China lead to 36.5% increase of surface O3 and 12.5% decrease of surface PM2.5. The elevated O3 promotes the secondary aerosol formation through heterogeneous pathways. We recommend that the complicated interaction between PM2.5 and O3 should be considered in the emission control strategy making process in the future.

Publication Type

Journal article.

<202>

Accession Number

20203577708

Author

Lugli, L.; Bedetti, L.; Lucaccioni, L.; Gennari, W.; Leone, C.; Ancora, G.; Berardi, A.

Title

An uninfected preterm newborn inadvertently fed SARS-CoV-2-positive breast milk.

Source

Pediatrics; 2020. 146(6). 12 ref.

Publisher

American Academy of Pediatrics

Location of Publisher

Elk Grove Village

Country of Publication

USA

Abstract

There are increasing concerns regarding coronavirus disease, caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Approaches to breastfeeding and the management of neonates born to pauci-symptomatic mothers with coronavirus disease vary worldwide, although some scientific societies across Europe and the United States have emphasized the benefits of breastfeeding, even with expressed breast milk. Because SARS-CoV-2 has been, thus far, only exceptionally detected in breast milk, the risk of disease transmission has remained hypothetical.We herein report the case of a healthy preterm newborn who was inadvertently fed SARS-CoV-2-positive breast milk. Two different samples, collected with and without strict hygiene precautions, were both confirmed to be SARS-CoV-2 positive. However, the newborn was not infected, supporting the protective role of breast milk. Furthermore, in this report, we highlight the difficulties in the practical management of a neonate whose breastfeeding mother was confirmed as positive for SARS-CoV-2 after delivery.

Publication Type

Journal article.

<203>

Accession Number

20203577329

Author

Zsilavecz, A.; Wain, H.; Bruce, J. L.; Smith, M. T. D.; Bekker, W.; Laing, G. L.; Lutge, E.; Clarke, D. L.

Title

Trauma patterns during the COVID-19 lockdown in South Africa expose vulnerability of women.

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Source

  SAMJ - South African Medical Journal; 2020. 110(11):1110-1112. 8 ref.

Publisher

  Health and Medical Publishing Group

Location of Publisher

  Cape Town

Country of Publication

  South Africa

Abstract

  Background. Trauma care places a significant burden on the South African (SA) healthcare system, and this has not changed significantly in recent history. We speculated that the COVID-19 lockdown regulations (travel restriction and alcohol ban) would affect trauma patterns. Objectives. To compare the burden and nature of trauma over the COVID-19 lockdown period with the equivalent period over the past 5 years using routinely collected data from the Pietermaritzburg Metropolitan Trauma Service in KwaZulu-Natal Province, SA. Methods. All trauma patients admitted to Grey's Hospital in Pietermaritzburg between 23 March 2015 and 31 May 2020 were identified and reviewed. Results. A total of 8 859 trauma patients were admitted over the 6-year period, with a total of 1 676 admitted during the periods 23 March-31 May. These 1 676 formed the study cohort. Of these patients, 998 had sustained blunt trauma, 665 penetrating trauma, and 13 a combination of blunt and penetrating trauma. A total of 14 categories of blunt trauma were reviewed, of which the three most common were assault, motor vehicle accidents (MVAs) and pedestrian vehicle accidents (PVAs). Between 23 March and 31 May 2020, a total of 23 patients were victims of blunt assault. The median number of assault victims over the equivalent period during the previous 5 years was 48. The 5 preceding years had a median of 56 MVAs and 33 PVAs, compared with 23 and 10 during the lockdown. The median number of gunshot wound (GSW) victims for the preceding years was 41, compared with 30 during the lockdown. During the lockdown, 24 stab wound victims were admitted, compared with a median of 73 for the preceding years. The proportion of females who sustained penetrating trauma and blunt assault increased significantly during the lockdown. The proportion of females sustaining a GSW or blunt trauma secondary to an MVA remained constant. Conclusions. The study showed that during the period of lockdown in SA there was a significant decrease in MVAs, PVAs and interpersonal violence. Assaults involving a knife seemed to decrease dramatically, but the rate of GSWs remained constant.

Publication Type

  Journal article.

<204>

Accession Number

  20203577328

Author

Chetty, T.; Daniels, B. B.; Ngandu, N. K.; Goga, A.

Title

A rapid review of the effectiveness of screening practices at airports, land borders and ports to reduce the transmission of respiratory infectious diseases such as COVID-19.

Source

SAMJ - South African Medical Journal; 2020. 110(11):1105-1109. 24 ref.

Publisher

Health and Medical Publishing Group

Location of Publisher

Cape Town

Country of Publication

South Africa

Abstract

Background. Travel screening for infectious diseases is often implemented to delay or prevent the entry of infected persons to a country/area. Objectives. To evaluate the effectiveness of different point-of-entry screening strategies in achieving a reduction in imported COVID-19 transmission. Methods. A rapid evidence review was conducted, systematically searching PubMed and Google Scholar and grey literature on 27 March 2020. Results. We screened 1 194 records. Nine potential full-text articles were assessed for eligibility and included. Three articles investigated the effectiveness of entry-based thermal and body temperature scanning. Entry-based infrared thermal or body temperature scanning for COVID-19 was unlikely to be effective. Two systematic reviews found no additional benefit of travel restrictions/screening. In a COVID-19 modelling study, airport screening was not effective, with exit and entry thermal scanning identifying half and missing almost half of infected travellers. Two other modelling studies found that entry-based travel screening would achieve only modest delays in community transmission, while international travel quarantine could reduce case importations by 80%. Conclusions. There is insufficient evidence to support entry and exit screening at points of entry, as these strategies detect just over half of the infected cases, missing almost half at entry points. The benefits of airport screening therefore need to be context specific and weighed against the resources and cost of implementation, the contribution of imported cases to total cases, and the benefits of identifying 50% of cases in the South African context with the country's high HIV and tuberculosis prevalence and limited resources to deal with a pandemic of this nature.

Publication Type

Journal article.

<205>

Accession Number

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201

Author

  Brooke, B. D.; Raman, J.; Frean, J.; Rundle, K.; Maartens, F.; Misiani, E.; Mabuza, A.; Barnes, K. I.; Moonasar, D. P.; Dlamini, Q.; Charles, S.; Blumberg, L.

Title

  Implementing malaria control in South Africa, eswatini and southern Mozambique during the COVID-19 pandemic.

Source

  SAMJ - South African Medical Journal; 2020. 110(11):1072-1076. 23 ref.

Publisher

  Health and Medical Publishing Group

Location of Publisher

  Cape Town

Country of Publication

  South Africa

Abstract

  The COVID-19 pandemic has strained healthcare delivery systems in a number of southern African countries. Despite this, it is imperative that malaria control and elimination activities continue, especially to reduce as far as possible the number and rate of hospitalisations caused by malaria. The implementation of enhanced malaria control/elimination activities in the context of COVID-19 requires measures to protect healthcare workers and the communities they serve. The aim of this review is therefore to present innovative ideas for the timely implementation of malaria control without increasing the risk of COVID-19 to healthcare workers and communities. Specific recommendations for parasite and vector surveillance, diagnosis, case management, mosquito vector control and community outreach and sensitisation are given.

Publication Type

  Journal article.

<206>

Accession Number

  20203577138

Author

  Orellan, C.; Macavilca, M.

Title

  Peruvian guideline to care the mental health of health providers during COVID-19 pandemic.

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202

Source

International Journal of Health Policy and Management; 2020. 9(11):496-497. 5 ref.

Publisher

Kerman University of Medical Sciences

Location of Publisher

Kerman

Country of Publication

Iran

Publication Type

Correspondence.

<207>

Accession Number

20203577134

Author

Matzopoulos, R.; Walls, H.; Cook, S.; London, L.

Title

South Africa's COVID-19 alcohol sales ban: the potential for better policy-making.

Source

International Journal of Health Policy and Management; 2020. 9(11):486-487. 12 ref.

Publisher

Kerman University of Medical Sciences

Location of Publisher

Kerman

Country of Publication

Iran

Publication Type

Correspondence.

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203

<208>

Accession Number

 20203577030

Author

 Bai Yang; Zhou Yi; Alatalo, J. M.; Hughes AliceC.

Title

 Changes in air quality during the first-level response to the COVID-19 pandemic in Shanghai Municipality, China.

Source

 Sustainability; 2020. 12(21). 27 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

Abstract

 Ongoing rapid urban population growth world-wide has led to serious environmental problems that affect ecosystems and also lower the security and happiness of urban residents about their living environment. The most frequently reported negative impact is a deterioration in urban air quality. In this study, we performed a comprehensive assessment of the effects of the city lockdown policy in response to Covid-19 on air quality in Shanghai Municipality, China, and sought to identify a balance point between human activities and improving air quality. The first-level response (FLR) by Shanghai to control the spread of Covid-19 was to launch a lockdown, which remained in place from 24 January to 23 March, 2020. We compared airborne pollutant concentrations in different regions (downtown, suburbs) of Shanghai city in three periods (Pre-FLR, During-FLR, and Post-FLR) and in the corresponding periods in the previous year. The results showed that air quality improved significantly During-FLR compared with Pre-FLR, with the concentrations of $PM2.5$, $PM10$, SO_2, NO_2, and CO all decreasing significantly. The concentrations of all pollutants except O_3 also decreased significantly compared with the same period in the previous year. There were also some differences in pollutant concentrations between the downtown region and the suburbs of Shanghai. However, we found that the concentrations of pollutants rebounded gradually when the restrictions on human activities ended after two months of lockdown. This study provides empirical evidence of the important effect of limiting human activities on air quality. For sustainable and clean future urban management in Shanghai and beyond, central government policy regulations requiring a low-carbon lifestyle and cleaner production in industries should be established.

Publication Type

Journal article.

<209>

Accession Number

20203577029

Author

Farias, P. I. V.; Freire, E.; Cunha, A. L. C. da; Grumbach, R. J. dos S.; Antunes, A. M. de S.

Title

The fertilizer industry in Brazil and the assurance of inputs for biofuels production: prospective scenarios after COVID-19.

Source

Sustainability; 2020. 12(21). 50 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Fertilizers are essential inputs for the agribusiness chain-they increase the productivity on available arable land and help to avoid changes in land use. Currently, Brazil is one of the largest consumers of fertilizers in the world but its imports of NPK fertilizers, as a percentage of its total consumption, have risen from 32% in 1988 to 77% in 2018. Biofuels are relevant in the transport sector and the Brazilian government, after the Paris Agreement, created the National Biofuels Policy (Renovabio), which has as one of its goals to raise the participation of biofuels in the transport sector to 28.6% by 2028. Soy, corn, and sugarcane (biofuels raw material) currently account for more than 70% of the consumption of NPK fertilizers in the country. Due to several reasons, in the last 10 years many local projects designed to fill the supply gap for fertilizers in Brazil have not been successful. The recent COVID-19 pandemic has raised questions about the reliability of fertilizer supply in global value chains. In this context, is Brazil's long-term biofuel market at risk after COVID-19? A total of 38 experts were consulted and four reference scenarios were developed. The article concluded that the Brazilian fertilizer industry must be prepared for a scenario of limited increase in demand on a global scale-strategic alliances may be forged to maintain existing installed capacity. Should the Brazilian government fail to provide any stimulus for the country's fertilizer industry, it is likely that by 2035, Brazil's biofuel industry sector would be overexposed to price volatility and availability on the global fertilizer market.

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205

Publication Type

 Journal article.

<210>

Accession Number

 20203576888

Author

 Lai XiaoQuan; Zhou Qian; Zhang XinPing; Tan Li

Title

 What influences the infection of COVID-19 in healthcare workers?

Source

 Journal of Infection in Developing Countries; 2020. 14(11):1231-1237. 29 ref.

Publisher

 Open Learning on Enteric Pathogens (OLOEP)

Location of Publisher

 Sassari

Country of Publication

 Italy

Abstract

 Introduction: The outbreak of COVID-19 has spread worldwide. The evidence about risk factors of healthcare workers who infected COVID-19 is limited. This study aims to describe characteristics and influencing factors of the COVID-19 infection in healthcare workers. Methodology: The study was performed among COVID-19 infected and uninfected healthcare workers in three hospitals in Wuhan. A total of 325 healthcare workers participated; among them 151 COVID-19-infected healthcare workers were included. Characteristics of infected healthcare workers, and influencing factors including exposure histories, the use of protective equipment in different risk conditions and areas, perceptions, emotions, satisfactions and educations were described and analyzed. Results: Healthcare workers got infected clustered mostly in the physical examination center. When performing general operations on confirmed or suspected patients, the use of protective equipment including the effectiveness of masks (p < 0.001), gloves (p < 0.001); and the use of gloves (p < 0.001), suits (p < 0.001), gowns (p < 0.001), shoe covers (p < 0.001), and hats (p < 0.001) were protective factors. The use of protective equipment was a protective factor in most cases. Negative emotions and dissatisfaction to the hospital response were associated with the increased risk of infection. Conclusions: The use of protective equipment, emotions and satisfactions to hospital responses are key COVID-19-infected factors. The awareness, the supply and the use of protective equipment, the layout of departments and other environmental and management factors should be strictly

equipped. In addition, hospitals should also pay attention to emotions and satisfaction of healthcare workers.

Publication Type

Journal article.

<211>

Accession Number

20203576882

Author

Naeem A. Alshoaibi; Khadijah Maghrabi; Haitham Alanazi; Mousa Al Harbi; Saleh Alghamdic

Title

Saudi heart rhythm society task force on management of potential arrhythmogenicity associated with pharmacotherapy for COVID-19.

Source

Annals of Saudi Medicine; 2020. 40(5):365-372. 47 ref.

Publisher

King Faisal Specialist Hospital and Research Centre

Location of Publisher

Riyadh

Country of Publication

Saudi Arabia

Abstract

Evidence of cardiovascular complications associated with the COVID-19 global pandemic continues to evolve. These include direct and indirect myocardial injury with subsequent acute myocardial ischemia, and cardiac arrhythmia. Some results from a limited number of trials of antiviral medications, along with chloroquine/hydroxychloroquine and azithromycin, have been beneficial. However, these pharmacotherapies may cause drug-induced QT prolongation leading to ventricular arrhythmias and sudden cardiac death. Mitigation of the potential risk in these susceptible patients may prove exceptionally challenging. The Saudi Heart Rhythm Society established a task force to perform a review of this subject based on has recently published reports, and studies and recommendations from major medical organizations. The objective of this review is to identify high-risk patients, and to set clear guidelines for management of patients receiving these pharmacotherapies.

Publication Type

Journal article.

<212>

Accession Number

 20203576848

Author

 Karampela, I.; Dalamaga, M.

Title

 Could respiratory fluoroquinolones, levofloxacin and moxifloxacin, prove to be beneficial as an adjunct treatment in COVID-19?

Source

 Archives of Medical Research; 2020. 51(7):741-742. 14 ref.

Publisher

 Elsevier

Location of Publisher

 New York

Country of Publication

 USA

Abstract

  Since the beginning of the COVID-19 pandemic, researchers have focused on repurposing of existing antibiotics, antivirals and anti-inflammatory drugs to find an effective therapy. Fluoroquinolones are broad spectrum synthetic antimicrobial agents, being chemical derivatives of quinoline, the prodrome of chloroquine. Interestingly, fluoroquinolones may exert antiviral actions against vaccinia virus, papovavirus, CMV, VZV, HSV-1, HSV-2, HCV and HIV. A recent in silico study has shown that the fluoroquinolones, ciprofloxacin and moxifloxacin, may inhibit SARS-CoV-2 replication by exhibiting stronger capacity for binding to its main protease than chloroquine and nelfinavir, a protease inhibitor antiretroviral drug. Remarkably, fluoroquinolones have shown multiple immunomodulatory actions leading to an attenuation of the inflammatory response through the inhibition of pro-inflammatory cytokines. Noteworthy, respiratory fluoroquinolones, levofloxacin and moxifloxacin, constitute fist line therapeutic agents for the management of severe community-acquired pneumonia. They are characterized by advantageous pharmacokinetic properties; higher concentrations in the lungs; and an excellent safety profile comparable to other antibiotics used to treat respiratory infections, such as macrolides and b-lactams. Based on their potential antiviral activity and immunomodulatory properties, the favorable pharmacokinetics and safety profile, we propose the use of respiratory fluoroquinolones as adjuncts in the treatment of SARS-CoV-2 associated pneumonia.

Publication Type

 Correspondence.

<213>

Accession Number

 20203576832

Author

 Hernandez-Galdamez, D. R.; Gonzalez-Block, M. A.; Romo-Duenas, D. K.; Lima-Morales, R.; Hernandez-Vicente, I. A.; Lumbreras-Guzman, M.; Mendez-Hernandez, P.

Title

 Increased risk of hospitalization and death in patients with COVID-19 and pre-existing noncommunicable diseases and modifiable risk factors in Mexico.

Source

 Archives of Medical Research; 2020. 51(7):683-689. 40 ref.

Publisher

 Elsevier

Location of Publisher

 New York

Country of Publication

 USA

Abstract

 Background: The population in Mexico has high prevalence rates of noncommunicable diseases (NCDs). Hospitalization and death of COVID-19 patients in the countries most affected by the pandemic has been associated to chronic comorbidities. Background: To describe the prevalence of NCDs in patients with COVID-19 in Mexico and analyze the increased risk due to comorbidities and risk factors on hospitalization, utilization of intensive care units and death. Methods: A cross-sectional study was performed from 212,802 confirmed COVID-19 cases reported by the Ministry of Health up to June 27, 2020. Odds ratios were performed using logistic regression model. Results: Up to 47.40% of patients with COVID-19 diagnosis were also reported with a comorbidity, with hypertension being the most frequent (20.12%). The report of at least one NCD significantly increased the risk of death with respect to patients without such diagnoses. Chronic kidney disease increased the risk of death the most (OR 2.31), followed by diabetes (OR 1.69), immunosuppression (OR 1.62), obesity (OR 1.42), hypertension (OR 1.24), chronic obstructive pulmonary disease (OR 1.20). The comorbidities that most increased the risk of ICU and of intubation were diabetes, immunosuppression and obesity. Conclusion: NCD comorbidities increase the severity of COVID-19 infection. Given high NCD prevalence rates among the Mexican population, the pandemic poses a special

threat to the health system and to society. Special prevention measures need to be strengthened for persons with NCD diagnoses in the short-term. In the mid-term, disease control strategies need to be improved to protect these patients against COVID-19 severity.

Publication Type

  Journal article.

<214>

Accession Number

  20203576827

Author

  Kumaragurubaran Karthik; Babu, R. P. A.; Kuldeep Dhama; Chitra, M. A.; Govindan Kalaiselvi; Senthilkumar, T. M. A.; Raj, G. D.

Title

  Biosafety concerns during the collection, transportation, and processing of COVID-19 samples for diagnosis.

Source

  Archives of Medical Research; 2020. 51(7):623-630. many ref.

Publisher

  Elsevier

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  The coronavirus disease 2019 (COVID-19) pandemic, which started in China, has created a panic among the general public and health care/laboratory workers. Thus far, there is no medication or vaccine to prevent and control the spread of COVID-19. As the virus is airborne and transmitted through droplets, there has been significant demand for face masks and other personal protective equipment to prevent the spread of infection. Health care and laboratory workers who come in close contact with infected people or material are at a high risk of infection. Therefore, robust biosafety measures are required at hospitals and laboratories to prevent the spread of COVID-19. Various diagnostic platforms including of serological, molecular and other advanced tools and techniques have been designed and developed for rapid detection of SARS-CoV-2 and each has its own merits and demerits. Molecular assays such as real-time reverse transcriptase polymerase chain reaction (rRT-PCR) has been used worldwide for diagnosis of COVID-19.

Samples such as nasal swabs or oropharyngeal swabs are used for rRT-PCR. Laboratory acquired infection has been a significant problem worldwide, which has gained importance during the current pandemic as the samples for rRT-PCR may contain intact virus with serious threat. COVID-19 can spread to workers during the sampling, transportation, processing, and disposal of tested samples. Here, we present an overview on advances in diagnosis of COVID-19 and details the issues associated with biosafety procedures and potential safety precautions to be followed during collection, transportation, and processing of COVID-19 samples for laboratory diagnosis so as to avoid virus infection.

Publication Type

 Journal article.

<215>

Accession Number

 20203576750

Author

 Feng SiQin; Luan XiaoDong; Wang YiFei; Wang Hui; Zhang ZhiYu; Wang YiYang; Tian ZhuAng; Liu MeiXi; Xiao Ying; Zhao Yong; Zhou RuiLin; Zhang ShuYang

Title

 Eltrombopag is a potential target for drug intervention in SARS-CoV-2 spike protein. (Special Issue: Vaccine and emerging infectious diseases.)

Source

 Infection, Genetics and Evolution; 2020. 85.

Publisher

 Elsevier B.V.

Location of Publisher

 Amsterdam

Country of Publication

 Netherlands

Abstract

 The COVID-19 pandemic, caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), is a current global threat for which there is an urgent need to search for an effective therapy. The transmembrane spike (S) glycoprotein of SARS-CoV-2 directly binds to the host angiotensin-converting enzyme 2 (ACE2) and mediates viral entrance, which is therefore considered as a promising drug target. Considering that new drug development is a time-consuming process, drug repositioning may facilitate rapid drug discovery dealing with sudden infectious diseases. Here, we compared the differences between

the virtual structural proteins of SARS-CoV-2 and SARS-CoV, and selected a pocket mainly localizing in the fusion cores of S2 domain for drug screening. A virtual drug design algorithm screened the Food and Drug Administration-approved drug library of 1234 compounds, and 13 top scored compounds were obtained through manual screening. Through in vitro molecular interaction experiments, eltrombopag was further verified to possess a high binding affinity to S protein plus human ACE2 and could potentially affect the stability of the ACE2-S protein complex. Hence, it is worth further exploring eltrombopag as a potential drug for the treatment of SARS-CoV-2 infection.

Publication Type

  Journal article.

<216>

Accession Number

  20203576730

Author

  Liu HsinLiang; Yeh IJeng; Nam Nhut Phan; Wu YenHung; Yen MengChi; Hung JuiHsiang; Chiao ChungChieh; Chen ChienFu; Sun ZhengDa; Jiang JiaZhen; Hsu HuiPing; Wang ChihYang; Lai MingDerg

Title

  Gene signatures of SARS-CoV/SARS-CoV-2-infected ferret lungs in short- and long-term models.

Source

  Infection, Genetics and Evolution; 2020. 85. many ref.

Publisher

  Elsevier B.V.

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  Coronaviruses (CoVs) consist of six strains, and the severe acute respiratory syndrome coronavirus (SARS-CoV), newly found coronavirus (SARS-CoV-2) has rapidly spread leading to a global outbreak. The ferret (Mustela putorius furo) serves as a useful animal model for studying SARS-CoV/SARS-CoV-2 infection and developing therapeutic strategies. A holistic approach for distinguishing differences in gene signatures during disease progression is lacking. The present study discovered gene expression profiles of short-term (3 days) and long-term (14 days) ferret models after SARS-CoV/SARS-CoV-2 infection using a bioinformatics approach. Through Gene Ontology (GO) and MetaCore analyses, we found that the development of

stemness signaling was related to short-term SARS-CoV/SARS-CoV-2 infection. In contrast, pathways involving extracellular matrix and immune responses were associated with long-term SARS-CoV/SARS-CoV-2 infection. Some highly expressed genes in both short- and long-term models played a crucial role in the progression of SARS-CoV/SARS-CoV-2 infection, including DPP4, BMP2, NFIA, AXIN2, DAAM1, ZNF608, ME1, MGLL, LGR4, ABHD6, and ACADM. Meanwhile, we revealed that metabolic, glucocorticoid, and reactive oxygen species-associated networks were enriched in both short- and long-term infection models. The present study showed alterations in gene expressions from short-term to long-term SARS-CoV/SARS-CoV-2 infection. The current result provides an explanation of the pathophysiology for post-infectious sequelae and potential targets for treatment.

Publication Type

  Journal article.

<217>

Accession Number

  20203576712

Author

  Hemmati, S.; Behzadipour, Y.; Haddad, M.

Title

  Decoding the proteome of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) for cell-penetrating peptides involved in pathogenesis or applicable as drug delivery vectors.

Source

  Infection, Genetics and Evolution; 2020. 85. many ref.

Publisher

  Elsevier B.V.

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  Synthetic or natural derived cell-penetrating peptides (CPPs) are vastly investigated as tools for the intracellular delivery of membrane-impermeable molecules. As viruses are intracellular obligate parasites, viral originated CPPs have been considered as suitable intracellular shuttling vectors for cargo transportation. A total of 310 CPPs were identified in the proteome of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Screening the proteome of the cause of COVID-19 reveals that SARS-CoV-2

CPPs (SCV2-CPPs) span the regions involved in replication, protein-nucleotide and protein-protein interaction, protein-metal ion interaction, and stabilization of homo/hetero-oligomers. However, to find the most appropriate peptides as drug delivery vectors, one might face several hurdles. Computational analyses showed that 94.3% of the identified SCV2-CPPs are non-toxins, and 38% are neither antigenic nor allergenic. Interestingly, 36.70% of SCV2-CPPs were resistant to all four groups of protease families. Nearly 1/3 of SCV2-CPPs had sufficient inherent or induced helix and sheet conformation leading to increased uptake efficiency. Heliquest lipid-binding discrimination factor revealed that 44.30% of the helical SCV2-CPPs are lipid-binding helices. Although Cys-rich derived CPPs of helicase (NSP13) can potentially fold into a cyclic conformation in endosomes with a higher rate of endosomal release, the most optimal SCV2-CPP candidates as vectors for drug delivery were SCV2-CPP118, SCV2-CPP119, SCV2-CPP122, and SCV2-CPP129 of NSP12 (RdRp). Ten experimentally validated viral-derived CPPs were also used as the positive control to check the scalability and reliability of our protocol in SCV2-CPP retrieval. Some peptides with a cell-penetration ability known as bioactive peptides are adopted as biotherapeutics themselves. Therefore, 59.60%, 29.63%, and 32.32% of SCV2-CPPs were identified as potential antibacterial, antiviral, and antifungals, respectively. While 63.64% of SCV2-CPPs had immuno-modulatory properties, 21.89% were recognized as anti-cancers. Conclusively, the workflow of this study provides a platform for profound screening of viral proteomes as a rich source of biotherapeutics or drug delivery carriers.

Publication Type

Journal article.

<218>

Accession Number

20203576578

Author

Wang YongJun; Han WenJuan; Pan LingLing; Wang CuiEr; Liu Yan; Hu Wei; Zhou HuaPin; Zheng XiaoFan

Title

Impact of COVID-19 on blood centres in Zhejiang Province China.

Source

Vox Sanguinis; 2020. 115(6):502-506. 24 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background and Objectives: A worldwide pandemic of coronavirus disease 2019 (COVID-19) has affected millions of people. A 'closed-off management' protocol has been launched nationwide in China to cope with this major public health emergency. However, these procedures may cause a crisis for blood donation and blood supply. In this study, we assessed the impact of the COVID-19 pandemic on blood donation and supply in Zhejiang province, which could provide reference and insight for developing countermeasures in other countries. Materials and Methods: Blood donor and supply information from 38 blood centres during the Spring Festival of 2019 and 2020 were reviewed. A self-administered questionnaire was carried out. Results: Due to the COVID-19 pandemic, the number of whole blood donors dropped by 67%. The success rate of recruitment for donations dropped by 60%. Most respondents (81.2%) were worried about the 'possibility of acquiring COVID-19 during blood donation'. The total amount of RBCs supply dropped by 65%. In the first week of the outbreak, the weekly amount of issued RBC units (10171.5 u) was almost six times higher than the collected units (1347.5 u). The mean haemoglobin value for RBCs transfusion was about 6.3 g/dl. About 4% of RBCs and 2.8% of frozen plasma were used in COVID-19 patients. Conclusion: The secondary consequences of the COVID-19 pandemic are blood shortages caused by the unavailability of blood donors, and this is likely to be replicated in many countries with high burdens of COVID-19. Practical actions to broaden sources and reduce use for the global crisis must be taken proactively.

Publication Type

Journal article.

<219>

Accession Number

20203576565

Author

Sengupta, A. M.; Diptendu Chatterjee; Rima Ghosh

Title

Role of probiotics in respiratory tract diseases with special reference to COVID-19: a review.

Source

Asian Journal of Medical Sciences; 2020. 11(4):64-70. 36 ref.

Publisher

Manipal College of Medical Sciences

Location of Publisher

Pokhara

Country of Publication

Nepal

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215

Abstract

According to the International Scientific Association in association with Food and Agriculture Organization of United Nations(UN) and World Health Organization (WHO), "administration of probiotics" means administration and ingestion of live microorganisms in an appropriate amount for developing good health condition in the host individual. Probiotics are administered for building immunity against common respiratory tract infections, including cough, pharyngitis, laryngitis, pneumonia, and asthma. Therefore, vaccinations have been introduced to safeguard the children and the elderly from such infections. General patients improve their health when they consume appropriate amounts live microorganisms (probiotics) such as Lactobacillus and Bifidobacterium that belong to lactic acid bacteria family. Fermented foods, such as yogurt and soy, and dietary supplements are known to be rich sources of microorganisms. However, the consumption of microorganisms causes gastrointestinal symptoms as common side effects. Limited studies provide relevant information about the probiotics' consumption; therefore, the current study aimed to increase the probiotics consumption among individuals and avoid common infections.

Publication Type

Journal article.

<220>

Accession Number

20203576528

Author

Choi SeongWoo; Shin JinSoo; Park SoonJung; Jung Eunhye; Park YunGwi; Lee JiHo; Kim SungJoon; Park HunJun; Lee JungHoon; Park SungMin; Moon SungHwan; Ban Kiwon; Go YunYoung

Title

Antiviral activity and safety of remdesivir against SARS-CoV-2 infection in human pluripotent stem cell-derived cardiomyocytes.

Source

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), is considered as the most significant global public health crisis of the century. Several drug candidates have been suggested as potential therapeutic options for COVID-19, including remdesivir, currently the only authorized drug for use under an Emergency Use Authorization. However, there is only limited information regarding the safety profiles of the proposed drugs, in particular drug-induced cardiotoxicity. Here, we evaluated the antiviral activity and cardiotoxicity of remdesivir using cardiomyocytes-derived from human pluripotent stem cells (hPSC-CMs) as an alternative source of human primary cardiomyocytes (CMs). In this study, remdesivir exhibited up to 60-fold higher antiviral activity in hPSC-CMs compared to Vero E6 cells; however, it also induced moderate cardiotoxicity in these cells. To gain further insight into the drug-induced arrhythmogenic risk, we assessed QT interval prolongation and automaticity of remdesivir-treated hPSC-CMs using a multielectrode array (MEA). As a result, the data indicated a potential risk of QT prolongation when remdesivir is used at concentrations higher than the estimated peak plasma concentration. Therefore, we conclude that close monitoring of the electrocardiographic/QT interval should be advised in SARS-CoV-2-infected patients under remdesivir medication, in particular individuals with pre-existing heart conditions.

Publication Type

Journal article.

<221>

Accession Number

20203576491

Author

Cegolon, L.; Javanbakht, M.; Mastrangelo, G.

Title

Nasal disinfection for the prevention and control of COVID-19: a scoping review on potential chemo-preventive agents.

Source

International Journal of Hygiene and Environmental Health; 2020. 230. many ref.

Publisher

Elsevier GmbH

Location of Publisher

Munich

Country of Publication

Germany

Abstract

Background: Neither pre-exposure nor post-exposure chemo-prophylaxis agents are currently available to prevent COVID-19. On the other hand, high loads of SARS-CoV-2 are shed from the nasal cavity before and after symptoms onset. Background: To conduct a scoping review on the available evidence on tolerable nasal disinfectants with encouraging health outcomes against SARS-CoV-2, i.e., agents effective against at least two different viruses beyond SARS-CoV-2. Methods: Online databases were searched to identify papers published during 2010-2020. Publications were selected if they were relevant to the scoping review. The review was narrative, describing for each treatment the mechanism(s) of action, tolerability, in vitro and in vivo evidence of the effects against SARS-CoV-2 and whether the product had been marketed. Results: Eight treatments were scrutinized: hypothiocyanite, lactoferrin, N-chlorotaurine, interferon-alpha, povidone-iodine, quaternary ammonium compounds, alcohol-based nasal antiseptics and hydroxychloroquine. In vitro viricidal effect against SARS-CoV-2 was reported for ethanol, alcohol-based hand sanitizers and povidone-iodine. Inhibition of other coronaviruses was described for lactoferrin, ethanol, hydroxychloroquine and quaternary ammonium compound. No treatment has been tested against SARS-CoV-2 in randomized controlled clinical trials thus far. However, interferon-alpha, lactoferrin and hydroxychloroquine were tested in one-arm open label uncontrolled clinical trial. Oxidant activity (hypothiocyanite, N-chlorotaurine and povidone-iodine), enhancement of endocytic and lysosomal pH (quaternary ammonium compounds and hydroxychloroquine) and destruction of the viral capsid (quaternary ammonium compounds, alcohol-based nasal antiseptics) were the main mechanisms of action. Lactoferrin and interferon-alpha have subtle biological mechanisms. With the exception of N-chlorotaurine, all other products available on the market. Conclusions: Effective and safe chemo-prophylactic drugs against SARS-CoV-2 do not exist yet but most eligible candidates are already in the market. Whilst the human nasal cavity is the port of entry for SARS-CoV-2, the mouth is involved as exit site through emission of respiratory droplets. The well-known hand-to-nose-to-hand cycle of contamination requires appropriate additional strategies for infection control. To narrow down the subsequent laboratory and clinical investigations, a case-control approach could be employed to compare the use of candidate drugs among individuals testing positive and negative to COVID-19 swabs.

Publication Type

Journal article.

<222>

Accession Number

20203576484

Author

Wei JiaTe; Liu YunXia; Zhu YuChen; Qian Jie; Ye RunZe; Li ChunYu; Ji XiaoKang; Li HongKai; Qi Chang; Wang Ying; Yang Fan; Zhou YuHao; Yan Ran; Cui XiaoMing; Liu YuanLi; Jia Na; Li ShiXue; Li XiuJun; Xue FuZhong; Zhao Lin; Cao WuChun

Title

Impacts of transportation and meteorological factors on the transmission of COVID-19.

Source

International Journal of Hygiene and Environmental Health; 2020. 230. 41 ref.

Publisher

Elsevier GmbH

Location of Publisher

Munich

Country of Publication

Germany

Abstract

The ongoing pandemic of 2019 novel coronavirus disease (COVID-19) is challenging global public health response system. We aim to identify the risk factors for the transmission of COVID-19 using data on mainland China. We estimated attack rate (AR) at county level. Logistic regression was used to explore the role of transportation in the nationwide spread. Generalized additive model and stratified linear mixed-effects model were developed to identify the effects of multiple meteorological factors on local transmission. The ARs in affected counties ranged from 0.6 to 9750.4 per million persons, with a median of 8.8. The counties being intersected by railways, freeways, national highways or having airports had significantly higher risk for COVID-19 with adjusted odds ratios (ORs) of 1.40 (p = 0.001), 2.07 (p < 0.001), 1.31 (p = 0.04), and 1.70 (p < 0.001), respectively. The higher AR of COVID-19 was significantly associated with lower average temperature, moderate cumulative precipitation and higher wind speed. Significant pairwise interactions were found among above three meteorological factors with higher risk of COVID-19 under low temperature and moderate precipitation. Warm areas can also be in higher risk of the disease with the increasing wind speed. In conclusion, transportation and meteorological factors may play important roles in the transmission of COVID-19 in mainland China, and could be integrated in consideration by public health alarm systems to better prevent the disease.

Publication Type

Journal article.

<223>

Accession Number

20203576072

Author

Levinger, P.; Panisset, M.; Dunn, J.; Haines, T.; Dow, B.; Batchelor, F.; Biddle, S.; Duque, G.; Hill, K. D.

Title

Exercise intervention outdoor project in the community for older people - results from the ENJOY seniors exercise park project translation research in the community.

Source

BMC Geriatrics; 2020. 20(446). 62 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: Many research studies evaluate physical activity interventions for older people in the community, however relatively few successfully promote maintenance of physical activity beyond the completion of the intervention. This study aimed to implement and evaluate the effects of sustained engagement in physical activity on mental, social and physical health outcomes through the use of the Seniors Exercise Park physical activity program for older people (the ENJOY project). Method: People aged 60 years underwent a 12-week structured supervised physical activity program using outdoor exercise park equipment followed by 6 months unstructured independent use of the exercise park. Participants were assessed at baseline, 3 months and 9 months and completed a test battery evaluating physical activity, physical function and health related quality of life measures. Repeated measures ANOVA was used to compare differences between baseline, 3 and 9 months. Results: Of the 95 participants, 80 (84.2%) completed the 3 months supervised program, and 58 (61%) completed the 9 month assessment (the latter impacted by COVID-19 restrictions). A significant increase in physical activity level was demonstrated following the 12 weeks intervention ($p < 0.01$). Significant improvements were also demonstrated in all physical function measures ($p < 0.01$), self-rated quality of life ($p < 0.05$), wellbeing ($p < 0.01$), fear of falls ($p < 0.01$), falls risk ($p < 0.01$), depressive symptoms ($p = 0.01$) and loneliness ($p = 0.03$) at 3 months. At the 9 months follow up, significant improvements from baseline were demonstrated in the frequency, duration and total of physical activity level ($p < 0.05$), and all physical function measures ($p < 0.05$), with no decline in these measures from 3 to 9 months. At 9 months, significant changes were observed in the health related quality of life mobility and self care domains with reductions in both fear of falls and falls risk ($p < 0.05$). Conclusion: The Seniors Exercise Park may be an effective modality for improving and sustaining older people's physical function and wellbeing and can be an important public health infrastructure investment in promoting physical activity for older people. Future work should focus on wider implementation of the program and on scaling up this initiative to achieve public health benefit for the community.

Publication Type

  Journal article.

<224>

Accession Number

  20203575995

Author

Aljehani, Y. M.; Othman, S. A.; Telmesani, N. K.; Alghamdi, R. A.; Albuainain, H. M.; Alghamdi, Z. M.; Zakaria, H. M.; Alreshaid, F. T.; Busbait, S. A.; Alqarzaie, A. A.; Alharbi, T. M.; Alnajim, R. K.

Title

Stress and psychological resilience among general surgery residents during COVID-19 pandemic.

Source

Publisher

Prince Sultan Military Medical City

Location of Publisher

Riyadh

Country of Publication

Saudi Arabia

Abstract

Objectives: To evaluate the impact of coronavirus-19 (COVID-19) pandemic and its consequences on general surgery residents. Methods: Cross-sectional, survey based study including surgical residents in Kingdom of Saudi Arabia and Kingdom of Bahrain. Results: Surgical trainees who participated in our survey (n=234) were young (mean age 28), single (53.8%), and males (65.8%). Approximately half (50.4%) have been deployed to cover the staff shortage in intensive care units (ICUs) or emergency departments (EDs). Half of our trainees (117) scored positive in the screening tool of generalized anxiety disorder (GAD). There was a significant association between experiencing anxiety and male gender (p=0.055), level of training (p=0.002), deployment to cover ICUs (p=0.050), testing positive for COVID-19 (p=0.054) and having an infected family member (p=0.004). Conclusion: Coronavirus-19 pandemic has a serious effect on all healthcare workers and surgical residents have experienced a considerable amount of stress. Accordingly, this psychological burden should be appropriately addressed in organizations planning strategies. We suggest formulating guidelines to help surgical trainees to continue their learning process with least psychological burden.

Publication Type

Journal article.

<225>

Accession Number

20203575994

Author

Abohamr, S. I.; Aldossari, M. A.; Alaklobi, F. A.; Amer, H. A.; Alzarzour, S. H.; Abdelhamid, S. W.; Obaid Aljunaidi; Badhawi, O. S.; Shireen Siddiqui; Hanem Jumaa; Muhammad Badwi; Eman Elsheikh

Title

Clinical characteristics and in-hospital outcome of medical staff infected with COVID-19 in Saudi Arabia. a retrospective single-center study.

Source

Publisher

Prince Sultan Military Medical City

Location of Publisher

Riyadh

Country of Publication

Saudi Arabia

Abstract

Objectives: To analyze the clinical characteristics and in-hospital outcomes among coronavirus disease 2019 (COVID-19) positive medical staff compared with those of public. Methods: A total of 108 COVID-19-positive medical staff patients were included in the study from March 23, 2020 to June 15, 2020. Patients were analyzed for demographic data, clinical presentations, and in-hospital outcomes and compared against 661 COVID-19-infected patients of non-medical personel. Results: Mean age of medical staff patients was 44.05+or-13.9 years, most of whom were women (63.9%). The infected medical staff members consisted of 63 nurses (58.3%), 37 physicians (34.3%), 5 technicians (4.6%), and 3 pharmacists (2.8%). Smoking (60.2%) was the most frequent, followed by diabetes mellitus (37%). Of 108 COVID-19 infected medical staff, 18 (16.6%) were isolated in the intensive care unit (ICU), of which 14 (77.8%) were male, 16 (88.9%) were smokers, and 16 (88.9%) presented with pneumonia. Fatality ratio among medical staff patients was 4.6%. Male gender with odds ratios (OR) of 7.771 and 95% confidence intervals (CI) of 0.837-72.195 and a history of chronic kidney disease of (OR=10.778, 95% CI: 1.503-77.287) were predictors of death among the medical staff group. Conclusion: The incidence of COVID-19 infection among medical staff is quite high, but the occurrence of extreme illness and death is significantly low compared with the general community. Training should be implemented for all hospital staff on infection prevention techniques. Reliable and quick access for testing medical personnel is essential to maintain health, safety, and availability of health care workers during this pandemic.

Publication Type

Journal article.

<226>

Accession Number

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20203575909

Author

Chen YiYi; Zhou Min; Hu Liang; Liu XiaoYu; Zhuo LiXin; Xie Qiong

Title

Emergency reconstruction of large general hospital under the perspective of new COVID-19 prevention and control. (Covid-19 part II.)

Source

Wiener Klinische Wochenschrift; 2020. 132(21/22):677-684. 22 ref.

Publisher

Springer-Wien

Location of Publisher

Vienna

Country of Publication

Austria

Abstract

Objective: To summarize the successful experience of timely crisis management, correct measures, and successful display of the hospital image in the First Affiliated Hospital of Zhejiang University (FAHZU), to improve the ability of emergency response. Methods: The FAHZU, as the earliest designated hospital, accomplished the transformation from general hospital to infectious disease hospital under the guiding ideology of centralized patients, centralized experts, centralized resources, and centralized treatment with measures to transfer the Zhijiang campus hospitalized patients quickly, complete the space layout, create diagnosis and treatment space, streamline logistics, and transform logistics facilities within 48 h. As of 5 March, the hospital had admitted 104 patients. Results: Of the severe cases in Zhejiang province 95% underwent centralized treatment with the goal of zero deaths for severely ill patients, zero misdiagnoses for infected patients, and zero infections for medical staff, and this served as a reference for large medical institutions regarding how to manage such a public health emergency. Conclusion: The successful cases of FAHZU provided a valuable experience for large medical institutions on how to address public health emergencies and how to carry out diagnosis and treatment and streamline the layout and related facilities in emergency reconstruction.

Publication Type

Journal article.

<227>

Accession Number

20203575905

Author

Kreidl, P.; Schmid, D.; Maritschnik, S.; Richter, L.; Borena, W.; Genger, J. W.; Popa, A.; Penz, T.; Bock, C.; Bergthaler, A.; Allerberger, F.

Title

Emergence of coronavirus disease 2019 (COVID-19) in Austria. (Covid-19 part II.)

Source

Wiener Klinische Wochenschrift; 2020. 132(21/22):645-652. 22 ref.

Publisher

Springer-Wien

Location of Publisher

Vienna

Country of Publication

Austria

Abstract

This is a report on the first identified cases of coronavirus disease 2019 (COVID-19) in Austria. The first documented case was a person who stayed in Kuhtai, Tyrol, from 24 to 26 January 2020, and had been infected by a Chinese instructor in Starnberg (Germany) between 20 and 22 January. This counts as a German case since her diagnosis was eventually made in Munich (Germany) on 28 January. On 25 February, two cases imported from Italy were diagnosed in Innsbruck but again no secondary cases were identified in Austria. The first three infections of Austrian inhabitants were detected on 27 February in Vienna. The two resulting clusters finally included 6 (source of initial infection unknown) and 61 cases. Most likely, Italy was the source of the latter cluster. On 12 March the first fatal case of COVID-19 in Austria was reported, a 69-year-old Viennese who died in a Vienna hospital after returning from a cruise ship tour in Italy. On 6 March three autochthonously acquired cases were reported in the Tyrol, all related to the ski resort Ischgl. Of the first 14 Islandic COVID-19 cases infected in Ischgl, 11 had already returned to Iceland on 29 February. We consider that the incriminated barkeeper, who tested PCR positive on 7 March, was neither the primary case nor a superspreader. In our opinion, undetected transmission of SARS-CoV-2 had been ongoing in Ischgl prior to the first laboratory confirmed cases. Our data also underline that the introduction of SARS-CoV-2 into Austria was not one single event.

Publication Type

Journal article.

<228>

Accession Number

20203575892

Author

Aronu, A. E.; Chinawa, A. T.; Nduagubam, O. C.; Ossai, E. N.; Chinawa, J. M.

Title

COVID-19: knowledge of mode of spread and preventive practices among mothers attending a tertiary health institution.

Source

International Journal of Medicine and Health Development; 2021. 26(1):56-63. 25 ref.

Publisher

College of Medicine, University of Nigeria

Location of Publisher

Enugu

Country of Publication

Nigeria

Abstract

Background: COVID-19 pandemic is a very common menace in the world. Knowledge on mode of spread and prevention of COVID-19 remains blurred among mothers who visit children clinics. Objectives: This work is aimed to determine the knowledge of mode of spread and preventive practices among mothers presenting in a health institution. Materials and Methods: This is a cross-sectional observational study undertaken in a health institution in South East Nigeria using a structured self-administered questionnaire. Data entry and analysis were done using IBM Statistical Package for Social Sciences (SPSS) statistical software version 25.0. Results: All the respondents (100.0%) have heard of COVID-19. A minor proportion of the respondents, 31.9%, had good knowledge of the mode of spread of COVID-19. Majority of the respondents, 93.3%, knew that COVID-19 could be prevented through good use of personal hand sanitizer. A high proportion of the respondents, 75.5%, were aware that COVID-19 could be prevented by avoiding crowded places and 76.7% by wearing of face mask. The respondents who were in the age group 30-39 years were twice more likely to have good knowledge of spread of COVID-19 when compared with those who were 50 years and above. (AOR = 2.2, 95%CI: 1.2-3.9). The respondents who attained tertiary education were 1.3 times less likely to have good knowledge of spread of COVID-19 when compared with those who attained secondary education. (AOR = 0.8, 95%CI: 0.5-1.2). Respondents who were married were about five times more likely to have good preventive practices against COVID-19 than those who were single parents. (AOR = 4.9, 95%CI: 2.8-8.4). Conclusion: Education is predictive of knowledge of mode of spread while being married is predictive of knowledge of preventive practices.

Publication Type

Journal article.

<229>

Accession Number

20203575651

Author

Gatti, R. C.; Velichevskaya, A.; Tateo, A.; Amoroso, N.; Monaco, A.

Title

Machine learning reveals that prolonged exposure to air pollution is associated with SARS-CoV-2 mortality and infectivity in Italy.

Source

Environmental Pollution; 2020. 267. 47 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Air pollution can increase the risk of respiratory diseases, enhancing the susceptibility to viral and bacterial infections. Some studies suggest that small air particles facilitate the spread of viruses and also of the new coronavirus, besides the direct person-to-person contagion. However, the effects of the exposure to particulate matter and other contaminants on SARS-CoV-2 has been poorly explored. Here we examined the possible reasons why the new coronavirus differently impacted on Italian regional and provincial populations. With the help of artificial intelligence, we studied the importance of air pollution for mortality and positivity rates of the SARS-CoV-2 outbreak in Italy. We discovered that among several environmental, health, and socio-economic factors, air pollution and fine particulate matter (PM2.5), as its main component, resulted as the most important predictors of SARS-CoV-2 effects. We also found that the emissions from industries, farms, and road traffic - in order of importance - might be responsible for more than 70% of the deaths associated with SARS-CoV-2 nationwide. Given the major contribution played by air pollution (much more important than other health and socio-economic factors, as we discovered), we projected that, with an increase of 5-10% in air pollution, similar future pathogens may inflate the epidemic toll of Italy by 21-32% additional cases, whose 19-28% more positives and 4-14% more deaths. Our findings, demonstrating that fine-particulate (PM2.5) pollutant level is the most important factor to predict SARS-CoV-2 effects that would worsen even with a slight decrease of air quality, highlight that the imperative of productivity before health and environmental protection is, indeed, a short-term/small-minded resolution.

Publication Type

Journal article.

<230>

Accession Number

  20203575595

Author

  Zhao Na; Wang Gang; Li GuoHao; Lang JianLei; Zhang HanYu

Title

  Air pollution episodes during the COVID-19 outbreak in the Beijing-Tianjin-Hebei region of China: an insight into the transport pathways and source distribution.

Source

  Environmental Pollution; 2020. 267. 47 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Although anthropogenic emissions decreased, polluted days still occurred in the Beijing-Tianjin-Hebei (BTH) region during the initial outbreak of the coronavirus disease (COVID-19). Analysis of the characteristics and source distribution of large-scale air pollution episodes during the COVID-19 outbreak (from 23 January to April 8, 2020) in the BTH region is helpful for exploring the efficacy of control measures and policy making. The results indicated that the BTH region suffered two large-scale air pollution episodes (23-28 January and 8-13 February), which were characterized by elevated $PM_{2.5}$, SO_2, NO_2, and CO concentrations, while the O_3 concentration decreased by 1.5%-33.9% (except in Shijiazhuang, where it increased by 16.6% during the second episode). These large-scale air pollution episodes were dominated by unfavorable meteorological conditions comprising a low wind speed and increased relative humidity. The transport pathways and source distribution were explored using the Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT), potential source contribution function (PSCF), and concentration weighted trajectory (CWT) models. The air pollution in the BTH region was mainly affected by local emission sources during the first episode, which contributed 51.6%-60.6% of the total trajectories in the BTH region with a $PM_{2.5}$ concentration ranging from 146.2 g/m3 to 196.7 g/m3. The short-distance air masses from the southern and southwestern areas of the BTH region were the main transport pathways of airflow arriving in the BTH region during the second episode. These contributed 51.9%-57.9% of the total trajectories and originated in Hebei, Henan, central Shanxi, and Shaanxi provinces, which were the areas contributing the most to the $PM_{2.5}$ level and exhibited the highest PSCF and CWT values. Therefore, on the basis of local emission reduction, enhancing regional environmental cooperation and implementing a united prevention and control of air pollution are effective mitigation measures for the BTH region.

Publication Type

  Journal article.

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<231>

Accession Number

  20203575351

Author

  Barragan, R.; Molero, F.; Granados-Munoz, M. J.; Salvador, P.; Pujadas, M.; Artinano, B.

Title

  Feasibility of ceilometers data to estimate radiative forcing values: application to different conditions around the COVID-19 lockdown period.

Source

  Remote Sensing; 2020. 12(22). 64 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  In this study, the feasibility of using ceilometer signals to retrieve radiative forcing values is evaluated. The Global Atmospheric Model (GAME) radiative transfer model is used to estimate the shortwave and longwave radiative forcing using an aerosol parameterization based on AERONET data and vertical profiles from a Lufft CHM-15k Nimbus ceilometer. First, eight cases confirmed as dusty days are analyzed to check the feasibility of using ceilometer profiles to feed GAME. The obtained radiative forcing estimates are in good agreement with the literature showing negative values in the short wave (SW) (cooling effect) and positive values in the long wave (LW) (heating effect), both at all levels. As in the literature, radiative forcing estimates show a strong dependence on variations in the aerosol optical depth (AOD), solar zenith angle (Xz), surface temperature (ST), and single scattering albedo at 440 nm (SSA440). Thus, GAME can be fed using ceilometer measurements obtaining reliable results. Then, as the temporal evolution of the AOD440 between 27 January and 15 June compared to the 6-year weekly AERONET AOD440 average (from 2014 to 2019) shows a decrease because of the lockdown imposed in Spain due to the COVID-19, a total of 37 radiative forcing calculations without African dust, divided into 8 scenarios, are performed in order to check the effect of the lockdown measures in the radiative forcing. It is shown that the decrease in the AOD, during the lockdown, caused a decrease in the cooling effect in the SW spectral range at all levels. Besides, the increase in the ST increased the heating effect of the aerosols in the LW at the top of the atmosphere and the presence of pollution and absorbing particles (SSA440 < 0.90) caused an increase of the heating effect in the LW at the surface. Therefore, the observed variations in the radiative forcing estimates before and during the lockdown are directly related with the decrease in emissions of aerosols related to human activities.

Publication Type

Journal article.

<232>

Accession Number

20203575165

Author

Alok Ranjan; Muraleedharan, V. R.

Title

Equity and elderly health in India: reflections from 75th round National Sample Survey, 2017-18, amidst the COVID-19 pandemic.

Source

Globalization and Health; 2020. 16(93). 48 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) outbreak, called coronavirus disease - 2019 (COVID-19), has affected more than 200 countries across the globe with a higher fatality rate among the elderly population. Aim of the study is to highlight the vulnerability of the aged amidst the current COVID-19 pandemic, and in the light of the recent international evidence, suggests what government could do to mitigate their vulnerability. Methods: Data from the recently released (November 2019) 75th Round National Sample Survey (NSS), which was conducted from July 2017 to June 2018, across 8077 rural villages and 6181 urban wards was used for this study. Data collected from 555,115 individuals (rural: 325,232; urban: 229,232) included 42,762 elderly individuals (60 years or above). Bivariate and multivariate analyses were used for the calculation. Results: Of the total sample of elderly individuals, 27.7% reported suffering from an ailment in the last 15 days, whereas 8.5% had been hospitalized during the last 365 days. Among the elderly, hospitalization rate was higher in the urban areas (OR: 1.23), general social category (OR: 1.18), richest economic quintile (OR: 1.69), and among those living alone (OR: 2.40). Also, among the elderly, 64% of those in the scheduled tribe (social group) and 51% in the poorest economic quintile utilized public facilities for hospitalization. Cardiovascular ailments were the major cause for hospitalization (18.1%) and outpatient visit (32%) among the elderly. Ailments related to diabetes and

hypertension constituted 55% of outpatient visit for the elderly. Only 18.9% of the elderly had health insurance though chances of facing catastrophic health expenditures were high among the elderly. 6.6% of elderly female and 1.6% male live alone, and 27.5% of age 80 years and above are immobile. 50% of male and 90% of female are financially dependent on others and more so in poorer economic quintiles. Conclusions: The vulnerability of India's elderly increases across economic levels, and other dimensions such as the place of residence, gender, social group (caste), marital status, living arrangements, surviving children, and economic dependence. The current COVID-19 pandemic poses a greater risk of social isolation among the elderly, which may cause detrimental health impact.

Publication Type

  Journal article.

<233>

Accession Number

  20203575020

Author

  Fan Jing; Jiang Ying; Hu KaiHui; Chen Xiao; Xu Qian; Qi YuJiao; Yin HuBin; Gou Xin; Liang SiMin

Title

  Barriers to using personal protective equipment by healthcare staff during the COVID-19 outbreak in China.

Source

  Medicine (Baltimore); 2020. 99(48). 16 ref.

Publisher

  Lippincott Williams & Wilkins, Inc.

Location of Publisher

  Hagerstown

Country of Publication

  USA

Abstract

  The spread of coronavirus disease 2019 (COVID-19) around the world has put a heavy burden on human society and is also a great challenge facing medical staff. This study aimed to assess the difficulties faced by health care personnel (HCP) in using personal protective equipment (PPE) in clinical practice during the COVID-19 outbreak in Wuhan, China. One hundred twenty medical staff from the First Affiliated Hospital of Chongqing Medical University presented to the Wuhan First Hospital to provide medical assistance, from whom 20 HCP volunteered to participate in a focus group discussion attended by infection control nurse

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leaders. Participants' responses and discussions were recorded, and the content was analyzed for themes. Observed difficulties included inappropriate PPE sizes, the design of the PPE and its complexity of use, doubts related to the quality and effectiveness of PPE, potential risks during doffing, space layout between clean and contaminated area, and poor comfort with PPE use. Other factors, such as the support environment, management, processes, preparedness, HCP, and equipment can also have a positive or negative impact on the use of PPE. Future efforts to optimize PPE use should focus on strengthening training for HCP using real items for increasing compliance with standardized protocols, improving PPE design, and performing further research on the risks, benefits, and best practices of PPE use.

Publication Type

  Journal article.

<234>

Accession Number

  20203574913

Author

  Arikan, H.; Karadogan, D.; Akyil, F. T.; Yuksel, A.; Toreyin, Z. N.; Gurkan, C. G.; Marim, F.; Eyuboglu, T. S.; Emiralioglu, N.; Gursoy, T. R.; Serifoglu, I.; Sandal, A.; Oncel, A.; Er, B.; Kose, N.; Esendagli, D.; Hizal, M.; Er, A. B.; Gunaydin, F. E.; Kaya, I.; Ozakinci, H.; Sertcelik, U. O.; Tuglu, H. C.; Ozurk, N. A. A.; Ataoglu, O.; Cakir, A. C.; Toptay, H.; Ercelik, M.; Develi, E.; Celik, S.; Karakas, F. G.; Yildirim, H.; Guven, D. K.; Cetin, N.; Kucukyurt, S. N. A.; Elverisli, M. F.; Gulhan, P. Y.; Akgun, M.

Title

  COVID-19 treatment' at a glance.

Source

  Turkish Thoracic Journal; 2020. 21(6):438-445. 72 ref.

Publisher

  AVES Publishing

Location of Publisher

  Istanbul

Country of Publication

  Turkey

Abstract

  As coronavirus disease 2019 (COVID-19) spreads across the world, the ongoing clinical trials are leading to a big race worldwide to develop a treatment that will help control the pandemic. Unfortunately, COVID-19 does not have any known effective treatment with reliable study results yet. In this pandemic, there is not a

lot of time to develop a new specific agent because of the rapid spread of the disease. The process of developing a vaccine is long and requires hard work. Although the pathophysiology of the disease is not fully understood, some of the proposed treatment alternatives are based on old evidence and some have been used with the idea that they might work owing to their mechanism of action. The efficacy, reliability, and safety of the currently available treatment alternatives are therefore a matter of debate. Currently, the main therapies used in the treatment of COVID-19 are antiviral drugs and chloroquine/hydroxychloroquine. Other proposed options include tocilizumab, convalescent plasma, and steroids, but the mainstay of the treatment in intensive care units remains supportive therapies.

Publication Type

  Journal article.

<235>

Accession Number

  20203574912

Author

  Elbek, O.

Title

  COVID-19 pandemic threatening prison population.

Source

  Turkish Thoracic Journal; 2020. 21(6):433-437. 26 ref.

Publisher

  AVES Publishing

Location of Publisher

  Istanbul

Country of Publication

  Turkey

Abstract

  The prison population is one of the high-risk groups for coronavirus disease 2019 (COVID-19) pandemic. Apart from being in disadvantageous settings of "social distancing," people in prisons are frequently elderly and with multiple comorbidities as a reflection of discriminatory punitive policies worldwide. Although the universal human rights principles ensure that prisoners, like everyone else, live their lives in a healthy environment and access qualified healthcare when they are sick, without being discriminated, the prison conditions make it difficult to comply with these principles. In this review, the basic principles and recommendations on this subject have been reviewed in the context of the COVID-19 outbreak. In addition,

the situation in Turkey's prisons was reviewed immediately before the transition to a "controlled social life.".

Publication Type

  Journal article.

<236>

Accession Number

  20203574911

Author

  Kokturk, N.; Itil, B. O.; Altinisik, G.; Adiguzel, N.; Akgun, M.; Akyildiz, L.; Altin, S.; Arikan, H.; Ates, G.; Ay, P.; Aykac, N.; Babayigit, C.; Bostan, P.; Cinel, G.; Calisir, H. C.; Celik, P.; Cetinkaya, P. D.; Dagli, E.; Demir, A. U.; Demir, C.; Dikensoy, O.; Edis, E. C.; Elbek, O.; Erdinc, M.; Ergan, B.; Eyuboglu, A. F. O.; Gemicioglu, B.; Goksel, T.; Gulhan, E.; Gultekin, O.; Gurkan, C. G.; Gurgun, A.; Havlucu, Y.; Basoglu, O. K.; Karakurt, S.; Karakurt, Z.; Kilinc, O.; Kocabas, A.; Kul, S.; Musellim, B.; Nayci, S.; Ozkan, M.; Pinarer, O.; Salturk, C.; Sandal, A.; Sayiner, A.; Sen, E.; Simsek, G. O.; Karadag, B. T.; Akyil, F. T.; Toreyin, Z. N.; Ucan, E. S.; Kucuk, F. C. U.; Varol, A.; Yasin, Y.; Yildiz, T.; Yorgancioglu, A. A.; Bayram, H.

Title

  COVID-19 pandemic and the global perspective of Turkish Thoracic Society.

Source

Publisher

Location of Publisher

Country of Publication

Abstract

  It has been more than 3 months now since the first case of COVID-19 was reported in Turkey. Globally, the number of confirmed cases and deaths reached 9,653,048 and 491,128 respectively, as reported by 216 countries by June 27, 2020. Turkey had 1,396 new cases, 194,511 total cases, and 5,065 deaths by the same date. From the first case until today, the Turkish Thoracic Society (TTS) has been very proactive in educating doctors, increasing public awareness, undertaking academic studies, and assisting with public health policies. In the present report, social, academic, and management perspectives of the pandemic are presented under appropriate subtitles. During this critical public health crisis, TTS has once again

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demonstrated its readiness and constructive stance by supporting public health, healthcare workers, and the environment. This review summarizes the perspective of TTS on each aspect of the COVID-19 pandemic and casts light on its contributions.

Publication Type

  Journal article.

<237>

Accession Number

  20203574852

Author

  Ajima, U.; Kolawole, J. A.; Falang, K. D.; Bukar, B. B.; Amagon, K. I.; Damen, J. G.; Agabi, Y. A.; Kutshik, R. J.; Longdet, I. Y.; Gomerep, S. S.; Shittu, I.; Davou, S. D.; Wannang, N. N.

Title

  Evaluation of the elemental, nutritional and antioxidant properties of CoV-Pla herbal preparations.

Source

  African Journal of Pharmacy and Pharmacology; 2020. 14(10):370-376. 30 ref.

Publisher

  Academic Journals

Location of Publisher

  Lagos

Country of Publication

  Nigeria

Abstract

  The outbreak of the COVID-19 pandemic has had a dramatic effect on human existence and still shows no sign of abating. Scientists worldwide are therefore working assiduously to get new drug treatments to help mitigate the crisis. Some of those efforts involve research to obtain COVID-19 treatments from natural sources. The present study is aimed at evaluating the elemental, nutritional and antioxidant properties of CoV-Pla1, CoV-Pla2, CoV-Pla3 and PlaBoost herbal preparations. Elemental analysis was carried out using AAS after acid digestion of the samples. Proximate analysis of the formulations was done using the official AOAC methods while the antioxidant assay was carried out using the DPPH free radical scavenging method. The results of the study showed that the concentration of the heavy metals in all the samples were within acceptable regulatory limits. Proximate analysis revealed that the suspensions had protein content between 1.52-1.68% and carbohydrate content of 0.79 - 1.08% with low content of fat, crude fibre and ash. The formulations were found to be free of microbial contamination and stable for thirty days. Antioxidant

evaluation revealed that CoV-Pla3 had the strongest free radical scavenging capacity with IC50 of 27.29 micro g/mL while PlaBoost had the least (IC50: 251 micro g/mL). The result of the study indicates that the formulations are free of metallic and microbial contaminants. In addition, proximate analysis has established some diagnostic parameters which will aid future authentication and purity assessment of the formulations. The formulations were all found to possess considerable antioxidant activity which will provide collateral benefit in relieving oxidative stress associated with COVID-19 infection.

Publication Type

Journal article.

<238>

Accession Number

20203574829

Author

Rush, M. J.; McPheron, A.; Martin, S. J.; Kier, K. L.

Title

Transitioning a regional residency conference from an in-person to a virtual format in response to COVID-19 travel restrictions.

Source

American Journal of Health-System Pharmacy; 2020. 77(22):1826-1827. 2 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

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235

<239>

Accession Number

20203574749

Author

Zhang Dong; Ma Zhi; Chen HanChi; Lu YueLe; Chen XiaoLong

Title

Valinomycin as a potential antiviral agent against coronaviruses: a review.

Source

Biomedical Journal; 2020. 43(5):414-423. 97 ref.

Publisher

Chang Gung University

Location of Publisher

Taoyuan City

Country of Publication

Taiwan

Abstract

Human coronaviruses (HCoVs), including severe acute respiratory syndrome coronavirus (SARS-CoV), Middle East respiratory syndrome coronavirus (MERS-CoV), and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), have been resulting in global epidemics with heavy morbidity and mortality. Unfortunately, there are currently no specific medicines that can better treat these coronaviruses. Drug repurposing is an effective and economical strategy for drug discovery from existing drugs, natural products, and synthetic compounds. In this review, the broad-spectrum antiviral activity of valinomycin (VAL), especially its activity against coronaviruses such as SARS-CoV, MERS-CoV, human coronavirus OC43 (HCoV-OC43), were summarized, it highlights that VAL has tremendous potential for use as a novel antiviral agent against SARS-CoV-2.

Publication Type

Journal article.

<240>

Accession Number

20203574725

Author

Zupo, R.; Castellana, F.; Sardone, R.; Sila, A.; Giagulli, V. A.; Triggiani, V.; Cincione, R. I.; Giannelli, G.; Pergola, G. de

Title

Preliminary trajectories in dietary behaviors during the COVID-19 pandemic: a public health call to action to face obesity.

Source

International Journal of Environmental Research and Public Health; 2020. 17(19). 28 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The world is currently struggling to face the coronavirus pandemic (COVID-19), and many countries have imposed lockdowns and recommended quarantine to limit both the spread of the virus and overwhelming demands for medical care. Direct implications include the disruption of work routines, boredom, depression, increased calorie consumption, and other similar harmful effects. The present narrative review article briefly analyzes the preliminary effects of the quarantine lifestyle from the standpoint of dietary habits. In six different databases, we searched for original articles up to 10 August 2020, assessing eating habits among populations during the COVID-19 pandemic, and recorded any change in the intake of major food categories, as well as changes in body weight. The research strategy yielded 364 articles, from which we selected 12 articles that fitted our goal. Our preliminary findings revealed a sharp rise of carbohydrates sources consumption, especially those with a high glycemic index (i.e., homemade pizza, bread, cake, and pastries), as well as more frequent snacks. A high consumption of fruits and vegetables, and protein sources, particularly pulses, was also recorded, although there was no clear peak of increase in the latter. Data concerning the consumption of junk foods lacked consistency, while there was a decreased alcohol intake and fresh fish/seafood consumption. As a possible connection, people gained body weight. Therefore, in the realistic perspective of a continuing global health emergency situation, timely preventive measures are needed to counteract obesity-related behaviors in the long-term, so as to prevent further health complications.

Publication Type

Journal article.

<241>

Accession Number

  20203574720

Author

  Qi Xin; Yu HuaMing; Ploeger, A.

Title

  Exploring influential factors including COVID-19 on green food purchase intentions and the intention-behaviour gap: a qualitative study among consumers in a Chinese context.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(19). 92 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  This study applied a qualitative approach to investigate the underlying influences on consumers' green food consumption from the intention generation phase to intention execution phase in the perspectives of purchase intention and the intention-behaviour gap (IBG). Additionally, the impact of the "Coronavirus Disease 2019" (COVID-19) pandemic on consumers' green food purchases was explored. Research data were derived from semi-structured in-depth interviews with 28 consumers and analyzed using grounded theory. The findings identified factors that influenced intentions and the IBG in the process of consumers' green food purchases. Specifically, these findings reported that health consciousness, perceived attributes, environmental consciousness, social influence, family structure, and enjoyable shopping experiences were identified as major drivers for generating consumers' green food purchase intentions. High prices of green food, unavailability issues, mistrust issues, and limited knowledge were factors triggering the gap between green food purchase intentions and behaviours. In addition, the results revealed that the COVID-19 crisis increased consumers' green food purchase intentions, whereas the IBG widens as a result of issues of unavailability, price, and panic. These findings will help stakeholders build future policy and suitable strategies to better promote green food consumption in the Chinese context.

Publication Type

  Journal article.

<242>

Accession Number

20203574712

Author

Tuyen Van Duong; Pham, K. M.; Do, B. N.; Kim, G. B.; Dam, H. T. B.; Le, V. T. T.; Nguyen, T. T. P.; Nguyen, H. T.; Nguyen, T. T.; Le, T. T.; Do, H. T. T.; Yang ShwuHuey

Title

Digital healthy diet literacy and self-perceived eating behavior change during COVID-19 pandemic among undergraduate nursing and medical students: a rapid online survey.

Source

International Journal of Environmental Research and Public Health; 2020. 17(19). 62 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Assessing healthy diet literacy and eating behaviors is critical for identifying appropriate public health responses to the COVID-19 pandemic. We examined the psychometric properties of digital healthy diet literacy (DDL) and its association with eating behavior changes during the COVID-19 pandemic among nursing and medical students. We conducted a cross-sectional study from 7 April to 31 May 2020 at 10 public universities in Vietnam, in which 7616 undergraduate students aged 19-27 completed an online survey to assess socio-demographics, clinical parameters, health literacy (HL), DDL, and health-related behaviors. Four items of the DDL scale loaded on one component explained 71.32%, 67.12%, and 72.47% of the scale variances for the overall sample, nursing, and medical students, respectively. The DDL scale was found to have satisfactory item-scale convergent validity and criterion validity, high internal consistency reliability, and no floor or ceiling effect. Of all, 42.8% of students reported healthier eating behavior during the pandemic. A 10-index score increment of DDL was associated with 18%, 23%, and 17% increased likelihood of healthier eating behavior during the pandemic for the overall sample (OR, 1.18; 95% CI, 1.13, 1.24; p < 0.001), nursing students (OR, 1.23; 95%CI, 1.10, 1.35; p < 0.001), and medical students (OR, 1.17; 95%CI, 1.11, 1.24; p < 0.001), respectively. The DDL scale is a valid and reliable tool for the quick assessment of digital healthy diet literacy. Students with higher DDL scores had a higher likelihood of healthier eating behavior during the pandemic.

Publication Type

Journal article.

<243>

Accession Number

  20203574648

Author

  Wei JiaTe; Liu ZhiDong; Fan ZhengWei; Zhao Lin; Cao WuChun

Title

  Epidemiology of and risk factors for COVID-19 infection among health care workers: a multi-centre comparative study.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(19). 24 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Healthcare workers (HCWs) worldwide are putting themselves at high risks of coronavirus disease 2019 (COVID-19) by treating a large number of patients while lacking protective equipment. We aim to provide a scientific basis for preventing and controlling the COVID-19 infection among HCWs. We used data on COVID-19 cases in the city of Wuhan to compare epidemiological characteristics between HCWs and non-HCWs and explored the risk factors for infection and deterioration among HCWs based on hospital settings. The attack rate (AR) of HCWs in the hospital can reach up to 11.9% in Wuhan. The time interval from symptom onset to diagnosis in HCWs and non-HCWs dropped rapidly over time. From mid-January, the median time interval of HCW cases was significantly shorter than in non-HCW cases. Cases of HCWs and non-HCWs both clustered in northwestern urban districts rather than in rural districts. HCWs working in county-level hospitals in high-risk areas were more vulnerable to COVID-19. HCW cases working in general, ophthalmology, and respiratory departments were prone to deteriorate compared with cases working in the infection department. The AR of COVID-19 in HCWs are higher than in non-HCWs. Multiple factors in hospital settings may play important roles in the transmission of COVID-19. Effective measures should be enhanced to prevent HCWs from COVID-19 infection.

Publication Type

  Journal article.

<244>

Accession Number

20203574640

Author

Liu XueJing; Mesch, G. S.

Title

The adoption of preventive behaviors during the COVID-19 pandemic in China and Israel.

Source

International Journal of Environmental Research and Public Health; 2020. 17(19). 74 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 pandemic represents a massive global health crisis. The rapid transmission rate of the virus, as well as the lack of effective medications and vaccines, has posed serious challenges to controlling the spread of the disease. Dealing with this public health crisis has required major changes in people's behavior, including the adoption of social distancing measures such as avoiding meeting with family members and friends, crowded places, and public transportation. The purpose of this study is to investigate the factors associated with the adoption of these behaviors in China and Israel. We relied on the 3Cs model that has been used to predict the adoption of a specific preventive behavior (vaccinations) with the goal of testing its applicability to other preventive behaviors such as in response to the COVID-19 pandemic. The model indicates that confidence in social institutions, complacency (fear of and assessments about the risk of becoming ill) and constraints (levels of self-efficacy and confidence in being able to engage in the behaviors) are predictors of adopting preventive behaviors. Data were collected in China and Israel through an online survey of the population (n = 1406). We used latent variables and structural equation modeling to test the hypotheses derived from the 3Cs model. The findings indicate that there are some differences in the types of preventive behaviors adopted in the two countries. In Israel, higher levels of confidence predicted the adoption of avoidant behaviors and more constraints predicted engaging in fewer avoidant behaviors. In China, more constraints also contributed to the adoption of fewer avoidant behaviors, but people's level of confidence fully mediated this result. The multi-group analysis indicated that the conceptualized model fits the Chinese and Israeli data reasonably well. The findings suggest that the 3Cs model can be generalized from getting vaccinated to adopting avoidant behaviors and that the model can be used across cultures and countries.

Publication Type

Journal article.

<245>

Accession Number

  20203574635

Author

  Dominguez-Amarillo, S.; Fernandez-Aguera, J.; Cesteros-Garcia, S.; Gonzalez-Lezcano, R. A.

Title

  Bad air can also kill: residential indoor air quality and pollutant exposure risk during the COVID-19 crisis.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(19). many ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  During the first outbreak of the SARS-CoV-2 pandemic the population, focusing primarily on the risk of infection, was generally inattentive to the quality of indoor air. Spain, and the city of Madrid in particular, were among the world's coronavirus hotspots. The country's entire population was subject to a 24/7 lockdown for 45 days. This paper describes a comparative longitudinal survey of air quality in four types of housing in the city of Madrid before and during lockdown. The paper analysed indoor temperatures and variations in CO_2, 2.5 m particulate matter (PM2.5) and total volatile organic compound (TVOC) concentrations before and during lockdown. The mean daily outdoor PM2.5 concentration declined from 11.04 micro g/m3 before to 7.10 micro g/m3 during lockdown. Before lockdown the NO_2 concentration values scored as 'very good' 46% of the time, compared to 90.9% during that period. Although the city's outdoor air quality improved, during lockdown the population's exposure to indoor pollutants was generally more acute and prolonged. Due primarily to concern over domestic energy savings, the lack of suitable ventilation and more intensive use of cleaning products and disinfectants during the covid-19 crisis, indoor pollutant levels were typically higher than compatible with healthy environments. Mean daily PM2.5 concentration rose by approximately 12% and mean TVOC concentration by 37% to 559%. The paper also puts forward a series of recommendations to improve indoor domestic environments in future pandemics and spells out urgent action to be taken around indoor air quality (IAQ) in the event of total or partial quarantining to protect residents from respiratory ailments and concomitantly enhanced susceptibility to SARS-CoV-2, as identified by international medical research.

Publication Type

  Journal article.

<246>

Accession Number

20203574625

Author

Zhang LiWei; Chen KeLin; Jiang He; Zhao Ji

Title

How the health rumor misleads people's perception in a public health emergency: lessons from a purchase craze during the COVID-19 outbreak in China.

Source

International Journal of Environmental Research and Public Health; 2020. 17(19). 80 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Health rumors often mislead people and cause adverse health behaviors. Especially during a public health emergency, health rumors may result in severe consequences for people's health and risk governance. Insight into how these rumors form and harm people's health behavior is critical for assisting people in establishing scientific health cognition and to enhance public health emergency responses. Using the case study with interview data of a salient purchase craze led by a health rumor during the COVID-19 outbreak in China, this article aimed to illustrate the process of how a piece of information becomes a health rumor. Furthermore, we identify factors that cause people to believe rumors and conduct behavior that leads to a purchase craze. Results show that a public misunderstanding of the unique psychology of uncertainty, cultural and social cognition, and conformity behavior jointly informs people's beliefs in rumors and further causes purchase craze behavior. We developed a simplified model to demonstrate how an ordinary news report can lead to a rumor. Based on this model, some implications of effective health communication are suggested for managing rumors.

Publication Type

Journal article.

<247>

Accession Number

  20203574558

Author

  Mohd Fauzi, M. F.; Hanizah Mohd Yusoff; Rosnawati Muhamad Robat; Mat Saruan, N. A.; Khairil Idham Ismail; Mohd Haris, A. F.

Title

  Doctors' mental health in the midst of COVID-19 pandemic: the roles of work demands and recovery experiences.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(19). 60 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The COVID-19 pandemic potentially increases doctors' work demands and limits their recovery opportunity; this consequently puts them at a high risk of adverse mental health impacts. This study aims to estimate the level of doctors' fatigue, recovery, depression, anxiety, and stress, and exploring their association with work demands and recovery experiences. This was a cross-sectional study among all medical doctors working at all government health facilities in Selangor, Malaysia. Data were collected in May 2020 immediately following the COVID-19 contagion peak in Malaysia by using self-reported questionnaires through an online medium. The total participants were 1050 doctors. The majority of participants were non-resident non-specialist medical officers (55.7%) and work in the hospital setting (76.3%). The highest magnitude of work demands was mental demand (M = 7.54, SD = 1.998) while the lowest magnitude of recovery experiences was detachment (M = 9.22, SD = 5.043). Participants reported a higher acute fatigue level (M = 63.33, SD = 19.025) than chronic fatigue (M = 49.37, SD = 24.473) and intershift recovery (M = 49.97, SD = 19.480). The majority of them had no depression (69.0%), no anxiety (70.3%), and no stress (76.5%). Higher work demands and lower recovery experiences were generally associated with adverse mental health. For instance, emotional demands were positively associated with acute fatigue (adj. b = 2.73), chronic fatigue (adj. b = 3.64), depression (adj. b = 0.57), anxiety (adj. b = 0.47), and stress (adj. b = 0.64), while relaxation experiences were negatively associated with acute fatigue (adj. b = -0.53), chronic fatigue (adj. b = -0.53), depression (adj. b = -0.14), anxiety (adj. b = -0.11), and stress (adj. b = -0.15). However, higher detachment experience was associated with multiple mental health parameters in the opposite of the expected direction such as higher level of chronic fatigue (adj. b = 0.74), depression (adj. b = 0.15), anxiety (adj. b = 0.11), and stress (adj. b = 0.11), and lower level of intershift recovery (adj. b = -0.21). In conclusion, work demands generally worsen, while recovery experiences protect mental health during the COVID-19 pandemic with the caveat of the role of detachment experiences.

Publication Type

Journal article.

<248>

Accession Number

20203574504

Author

Huang ShengWen; Tai ChingHui; Hsu YinMei; Cheng DayNa; Hung SuJhen; Chai KitMan; Wang YaFang; Wang JenRen

Title

Assessing the application of a pseudovirus system for emerging SARS-CoV-2 and re-emerging avian influenza virus H5 subtypes in vaccine development.

Source

Biomedical Journal; 2020. 43(4):375-387. 46 ref.

Publisher

Chang Gung University

Location of Publisher

Taoyuan City

Country of Publication

Taiwan

Abstract

Background: Highly pathogenic emerging and re-emerging viruses continuously threaten lives worldwide. In order to provide prophylactic prevention from the emerging and re-emerging viruses, vaccine is suggested as the most efficient way to prevent individuals from the threat of viral infection. Nonetheless, the highly pathogenic viruses need to be handled in a high level of biosafety containment, which hinders vaccine development. To shorten the timeframe of vaccine development, the pseudovirus system has been widely applied to examine vaccine efficacy or immunogenicity in the emerging and re-emerging viruses. Methods: We developed pseudovirus systems for emerging SARS coronavirus 2 (SARS-CoV-2) and re-emerging avian influenza virus H5 subtypes which can be handled in the biosafety level 2 facility. Through the generated pseudovirus of SARS-CoV-2 and avian influenza virus H5 subtypes, we successfully established a neutralization assay to quantify the neutralizing activity of antisera against the viruses. Results: The result of re-emerging avian influenza virus H5Nx pseudoviruses provided valuable information for antigenic evolution and immunogenicity analysis in vaccine candidate selection. Together, our study assessed the potency of pseudovirus systems in vaccine efficacy, antigenic analysis, and immunogenicity in the vaccine development of emerging and re-emerging viruses. Conclusion: Instead of handling live highly

pathogenic viruses in a high biosafety level facility, using pseudovirus systems would speed up the process of vaccine development to provide community protection against emerging and re-emerging viral diseases with high pathogenicity.

Publication Type

Journal article.

<249>

Accession Number

20203574503

Author

Yang ChengWei; Peng TzuTing; Hsu HsingYu; Lee YueZhi; Wu SzuHuei; Lin WenHsing; Ke YiYu; Hsu TsuAn; Yeh TengKuang; Huang WenZheng; Lin JiunnHorng; Sytwu HueyKang; Chen ChiungTong; Lee ShiowJu

Title

Repurposing old drugs as antiviral agents for coronaviruses.

Source

Biomedical Journal; 2020. 43(4):368-374. 39 ref.

Publisher

Chang Gung University

Location of Publisher

Taoyuan City

Country of Publication

Taiwan

Abstract

Background: New therapeutic options to address the ongoing coronavirus disease 2019 (COVID-19) pandemic are urgently needed. One possible strategy is the repurposing of existing drugs approved for other indications as antiviral agents for severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Due to the commercial unavailability of SARS-CoV-2 drugs for treating COVID-19, we screened approximately 250 existing drugs or pharmacologically active compounds for their inhibitory activities against feline infectious peritonitis coronavirus (FIPV) and human coronavirus OC43 (HCoV-OC43), a human coronavirus in the same genus (Betacoronavirus) as SARS-CoV-2. Methods: FIPV was proliferated in feline Fcwf-4 cells and HCoV-OC43 in human HCT-8 cells. Viral proliferation was assayed by visualization of cytopathic effects on the infected Fcwf-4 cells and immunofluorescent assay for detection of the nucleocapsid proteins of HCoV-OC43 in the HCT-8 cells. The concentrations (EC50) of each drug necessary to diminish viral activity to 50% of that for the untreated controls were determined. The viabilities of Fcwf-4 and HCT-8 cells were

measured by crystal violet staining and MTS/PMS assay, respectively. Results: Fifteen out of the 252 drugs or pharmacologically active compounds screened were found to be active against both FIPV and HCoV-OC43, with EC50 values ranging from 11 nM to 75 M. They are all old drugs as follows, anisomycin, antimycin A, atovaquone, chloroquine, conivaptan, emetine, gemcitabine, homoharringtonine, niclosamide, nitazoxanide, oligomycin, salinomycin, tilorone, valinomycin, and vismodegib. Conclusion: All of the old drugs identified as having activity against FIPV and HCoV-OC43 have seen clinical use in their respective indications and are associated with known dosing schedules and adverse effect or toxicity profiles in humans. Those, when later confirmed to have an anti-viral effect on SARS-CoV-2, should be considered for immediate uses in COVID-19 patients.

Publication Type

  Journal article.

<250>

Accession Number

  20203574501

Author

  Ke YiYu; Peng TzuTing; Yeh TengKuang; Huang WenZheng; Chang ShaoEn; Wu SzuHuei; Hung HuiChen; Hsu TsuAn; Lee ShiowJu; Song JengShin; Lin WenHsing; Chiang TungJung; Lin JiunnHorng; Sytwu HueyKang; Chen ChiungTong

Title

  Artificial intelligence approach fighting COVID-19 with repurposing drugs.

Source

Publisher

  Chang Gung University

Location of Publisher

  Taoyuan City

Country of Publication

  Taiwan

Abstract

  Background: The ongoing COVID-19 pandemic has caused more than 193,825 deaths during the past few months. A quick-to-be-identified cure for the disease will be a therapeutic medicine that has prior use experiences in patients in order to resolve the current pandemic situation before it could become worsening. Artificial intelligence (AI) technology is hereby applied to identify the marketed drugs with

potential for treating COVID-19. Methods: An AI platform was established to identify potential old drugs with anti-coronavirus activities by using two different learning databases; one consisted of the compounds reported or proven active against SARS-CoV, SARS-CoV-2, human immunodeficiency virus, influenza virus, and the other one containing the known 3C-like protease inhibitors. All AI predicted drugs were then tested for activities against a feline coronavirus in in vitro cell-based assay. These assay results were feedbacks to the AI system for relearning and thus to generate a modified AI model to search for old drugs again. Results: After a few runs of AI learning and prediction processes, the AI system identified 80 marketed drugs with potential. Among them, 8 drugs (bedaquiline, brequinar, celecoxib, clofazimine, conivaptan, gemcitabine, tolcapone, and vismodegib) showed in vitro activities against the proliferation of a feline infectious peritonitis (FIP) virus in Fcwf-4 cells. In addition, 5 other drugs (boceprevir, chloroquine, homoharringtonine, tilorone, and salinomycin) were also found active during the exercises of AI approaches. Conclusion: Having taken advantages of AI, we identified old drugs with activities against FIP coronavirus. Further studies are underway to demonstrate their activities against SARS-CoV-2 in vitro and in vivo at clinically achievable concentrations and doses. With prior use experiences in patients, these old drugs if proven active against SARS-CoV-2 can readily be applied for fighting COVID-19 pandemic.

Publication Type

  Journal article.

<251>

Accession Number

  20203574499

Author

  Chauhan, S.

Title

  Comprehensive review of coronavirus disease 2019 (COVID-19).

Source

  Biomedical Journal; 2020. 43(4):334-340. 42 ref.

Publisher

  Chang Gung University

Location of Publisher

  Taoyuan City

Country of Publication

  Taiwan

Abstract

Coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was first identified in December 2019 in Wuhan, the capital of China's Hubei province and has rapidly spread all over the world. The World Health Organization (WHO) declared the outbreak to be a Public Health Emergency of International Concern on 01/30/2020 and recognized it as a pandemic on 03/11/2020. The number of people diagnosed with COVID-19 worldwide crossed the one million mark on 04/02/2020; two million mark on 04/15/2020; three million mark on 04/27/2020 and the four million mark on 05/09/2020. Despite containment efforts, more than 187 countries have been affected with more than 4,178,346 cases in the world with maximum being in USA (1,347,936) followed by 227,436 in Spain and 224,422 in United Kingdom as of May, 2020. COVID-19 is the latest threat to face mankind cutting across geographical barriers in a rapidly changing landscape. This review provides an update on a rapidly evolving global pandemic. As we face the threat of emerging and re-emerging infectious diseases, this is a stark reminder to invest in population health, climate change countermeasures, a global health surveillance system and effective research into identifying pathogens, their treatment and prevention and effective health delivery systems.

Publication Type

  Journal article.

<252>

Accession Number

  20203574400

Author

  Keyvanara, M.; Satari, M.; Jangi, M.; Sharbafchizadeh, N.; Samouei, R.

Title

  Prediction of the Iranians self-care in terms of communication pattern of their individual and social characteristics in face of COVID-19 pandemic-2020. [Persian]

Source

  Tehran University Medical Journal; 2020. 78(9):fa589-fa597. 29 ref.

Publisher

  Tehran University of Medical Sciences, Centre for Electronic Resources Provision and Journal Improvement

Location of Publisher

  Tehran

Country of Publication

  Iran

Abstract

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249

Background: Infectious diseases in the pandemic stage have significant lifethreatening, psychological and social effects. Identifying the characteristics associated with people's cooperation in self-care leads to greater immunity for themselves and others. Therefore, this study was conducted to predict the self-care of the Iranian people according to their individual and social characteristics in face of the Covid-19 pandemic. Methods: A survey study was conducted on 1056 adults aged 18 and over in different provinces of Iran through a form of answering online researcher-made questions (n=40, a=0.9) in social networks in four days. This paper studies the level of self-care of people against Covid 19 pandemic which was conducted with the support of Isfahan University of Medical Sciences in April 2016. Data were analyzed using Student t-test and variance. Moreover, "decision tree technique" was used to identify communication patterns. Results: The findings showed that the average self-care score in women, the most educated, married women, women aged 41 to 55, housewives and some other occupations was very high. However, the average self-care score of single men with a diploma was average. In general, the mean score of women's self-care was higher than men (P <0.0001) and the educated were more than the less educated literate (P =0.007). There was no significant difference between the self-care scores of the respondents in terms of their marital status and employment. Conclusion: The results showed that the average scores of self-care in women, more educated people, married women, women in the age group of 41 to 55 years, housewives and some other occupations were reported to be very high; While the average self-care score reported in single men with a diploma was average. Overall, the mean score of self-care reported in women was higher than men (P <0.0001) and people with doctoral education reported more self-care than illiterate people (P =0.007). Besides, there was no significant difference between the self-care scores of the respondents in terms of their marital status (single and married) and their employment status (employed and non-employed).

Publication Type

Journal article.

<253>

Accession Number

20203574383

Author

Low PehHueh; Mangat, M. S.; Liew NgianSan [Liew, N. S. D.]; Wong SiiHieng [Wong, S. H. A.]

Title

Neurosurgical services in the northern zone of Sarawak in Malaysia: the way forward amid the COVID-19 pandemic.

Source

World Neurosurgery; 2020. 144:e710-e713. 12 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Background: The novel coronavirus disease 2019 (COVID-19) pandemic has set a huge challenge to the delivery of neurosurgical services, including the transfer of patients. We aimed to share our strategy in handling neurosurgical emergencies at a remote center in Borneo island. Our objectives included discussing the logistic and geographic challenges faced during the COVID-19 pandemic. Methods: Miri General Hospital is a remote center in Sarawak, Malaysia, serving a population with difficult access to neurosurgical services. Two neurosurgeons were stationed here on a rotational basis every fortnight during the pandemic to handle neurosurgical cases. Patients were triaged depending on their urgent needs for surgery or transfer to a neurosurgical center and managed accordingly. All patients were screened for potential risk of contracting COVID-19 prior to the surgery. Based on this, the level of personal protective equipment required for the health care workers involved was determined. Results: During the initial 6 weeks of the Movement Control Order in Malaysia, there were 50 urgent neurosurgical consultations. Twenty patients (40%) required emergency surgery or intervention. There were 9 vascular (45%), 5 trauma (25%), 4 tumor (20%), and 2 hydrocephalus cases (10%). Eighteen patients were operated at Miri General Hospital, among whom 17 (94.4%) survived. Ninety percent of anticipated transfers were avoided. None of the medical staff acquired COVID-19. Conclusions: This framework allowed timely intervention for neurosurgical emergencies (within a safe limit), minimized transfer, and enabled uninterrupted neurosurgical services at a remote center with difficult access to neurosurgical care during a pandemic.

Publication Type

Journal article.

<254>

Accession Number

20203574382

Author

Tejas Venkataram; Nishant Goyal; Deepjyoti Kalita; Yogesh Bahurupi; Gangotri; Saravanan Sadhasivam; Sharma, S. K.

Title

Deployment of neurosurgeons at the warfront against coronavirus disease of 2019 (COVID-19).

Source

World Neurosurgery; 2020. 144:e561-e567. 26 ref.

Publisher

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251

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Background: The coronavirus disease 2019 (COVID-19) pandemic has taken the world by storm, especially the health care system. Medical practitioners of all specialties are being assigned to treat patients of COVID-19. In this article, two authors (T.V. and N.G.) from the Department of Neurosurgery who were deployed in the COVID-19 testing ward between April 25 and May 31, 2020 share their experience. Methods: A prospective observational study was conducted including all those who were admitted in this ward. The patients were studied according to their demographic profiles, diagnoses, admitting departments, travel history, and presence/absence of COVID-19-related symptoms. Relevant history regarding occupation, contact with patient with known COVID-19, and comorbid illness was noted. Those who tested positive for COVID-19 were studied further. The data from the institute's official record were updated until August 14, 2020. Results: During the study period, there were 256 admissions in the ward, of whom 148 (92 male, 56 female) were patients and 108 were patients' attendants/relatives. Most patients were admitted under the departments of internal medicine (33, 22.3%) and general surgery (19, 12.8%). Of 148 patients, 46 (31.1%) were admitted as they were planned for a surgery/intervention. Among 148 patients, 29 (19.6%) had history of travel to or were residents of a red zone, 4 (2.7%) had history of contact with a confirmed case of COVID-19, whereas 6 (4.1%) were health care workers. One hundred four patients (70.2%) showed no COVID-19-related symptoms. Thirty-four patients (22.9%) had associated comorbid conditions. Eight patients (5 male, 3 female) with mean age of 37.6 years (range 4-69 years) tested positive for COVID-19. Conclusions: The authors share their experience and their institute's protocol in various facets during this war against COVID-19 pandemic. Preadmission and presurgical testing of patients is important in preventing the spread of the disease amongst health care workers.

Publication Type

Journal article.

<255>

Accession Number

20203574376

Author

Jo SoHye; Koo BonHoon; Seo WanSeok; Yun SeokHo; Kim HyeGeum

Title

The psychological impact of the coronavirus disease pandemic on hospital workers in Daegu, South Korea.

Source

Comprehensive Psychiatry; 2020. 103. 38 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Objective: This study aimed to assess the immediate stress and psychological impact experienced by healthcare workers and other personnel during the Coronavirus disease (COVID-19) pandemic. Method: The sample consisted of 2554 hospital workers (i.e., physicians, nurses, allied health professionals, and auxiliary staff members) who were working in Yeungnam University Hospital in Daegu, South Korea. The Impact of Event Scale-Revised (IES-R) was administered to the hospital workers twice over a 2 week interval. A high-risk group, identified on the basic of first total IES-R, was assessed further with the Mini International Neuropsychiatric Interview (MINI) and the Clinical Global Impressions-Severity (CGI S) scale and was offered periodic psychiatric consultations on a telephone. Results: The participating nurses and auxiliary staff members had significantly higher IES-R scores ($p < 0.01$) than the physicians. During the second evaluation, the IES-R scores of the high-risk participants had decreased by 13.67 +or- 16.15 points ($p < 0.01$), and their CGI-S scores had decreased by 1.00 +or- 0.74 points ($p < 0.01$). The psychological symptoms of the high-risk group who received telephone-based psychiatric consultation showed improvement after 2 weeks. Conclusions: The present findings suggest that hospital workers experience high levels of emotional stress during a pandemic. In particular, the present findings underscore the need to provide more information and support to nurses and other administrative workers. There is a need for greater awareness about the importance of mental health care among hospital workers, and rapid and ongoing psychiatric interventions should be provided to workers during the pandemic period.

Publication Type

Journal article.

<256>

Accession Number

20203574374

Author

Yang Juan; Cheng YuanYuan; You QiuXiang; Liu Cong; Lai XiaoFeng; Zhang YunDong; Cheng Jing; Qiao PeiFeng; Long Yan; Xiang XiaoJiao; Lai YuJie

Title

Psychological distress surveillance and related impact analysis of hospital staff during the COVID-19 epidemic in Chongqing, China.

Source

Comprehensive Psychiatry; 2020. 103. 34 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Background: Hospital staff are vulnerable and at high risk of novel coronavirus disease (COVID-19) infection. The aim of this study was to monitor the psychological distress in hospital staff and examine the relationship between the psychological distress and possible causes during the COVID-19 epidemic. Methods: An online survey was conducted from February 1 to February 14, 2020. Hospital staff from five national COVID-19 designated hospitals in Chongqing participated. Data collected included demographics and stress responses to COVID-19: (1) the impact of event scale to measure psychological stress reactions; (2) generalized anxiety disorder 7 to measure anxiety symptoms; (3) Patient Health Questionnaire 9 to measure depression symptoms; (4) Yale-Brown Obsessive-Compulsive Scale to measure obsessive-compulsive symptoms (OCS); and (5) Patient Health Questionnaire 15 to measure somatization symptoms. Multiple logistic regression analysis was used to identify factors that were correlated with psychological distress. Results: Hospital staff that participated in this study were identified as either doctors or nurses. A total of 456 respondents completed the questionnaires with a response rate of 91.2%. The mean age was 30.67 +or- 7.48 years (range, 17 to 64 years). Of all respondents, 29.4% were men. Of the staff surveyed, 43.2% had stress reaction syndrome. The highest prevalence of psychological distress was OCS (37.5%), followed by somatization symptoms (33.3%), anxiety symptoms (31.6%), and depression symptoms (29.6%). Univariate analyses indicated that female subjects, middle aged subjects, subjects in the low income group, and subjects working in isolation wards were prone to experience psychological distress. Multiple logistic regression analysis showed "Reluctant to work or considered resignation" (odds ratio [OR], 5.192; 95%CI, 2.396-11.250; P < .001), "Afraid to go home because of fear of infecting family" (OR, 2.099; 95%CI, 1.299-3.391; P = .002) "Uncertainty about frequent modification of infection and control procedures" (OR, 1.583; 95%CI, 1.061-2.363; P = .025), and"Social support" (OR, 1.754; 95%CI, 1.041-2.956; P = .035) were correlated with psychological reactions. "Reluctant to work or considered resignation" and "Afraid to go home because of fear of infecting family" were associated with a higher risk of symptoms of Anxiety (OR, 3.622; 95% CI, 1.882-6.973; P < .001; OR, 1.803; 95% CI, 1.069-3.039; P = .027), OCS (OR, 5.241; 95% CI, 2.545-10.793; P < .001; OR, 1.999; 95% CI, 1.217-3.282; P = .006) and somatization (OR, 5.177; 95% CI, 2.595-10.329; P < .001; OR, 1.749; 95% CI, 1.051-2.91; P = .031). "Stigmatization and rejection in neighborhood because of hospital work", "Reluctant to work or considered resignation" and "Uncertainty about frequent modification of infection and control procedures" were associated with a higher risk of symptoms of Depression(OR, 2.297; 95% CI, 1.138-4.637; P = .020; OR, 3.134; 95% CI, 1.635-6.006; P = .001; OR, 1.645; 95% CI, 1.075-2.517; P = .022). Conclusions: Hospital staff showed different prevalence of psychological distress during the COVID-19 epidemic. Our study confirmed the severity of negative psychological distress on hospital staff and identified factors associated with negative psychological distress that can be used to provide valuable information for psychological interventions to improve the mental health of vulnerable groups during the COVID-19 epidemic.

Publication Type

Journal article.

<257>

Accession Number

20203574343

Author

Singh, A. P.; Prabhat Agrawal; Ashish Gautam; Dharmendra Kumar; Ruchika Garg; Nikhil Pursnani

Title

Knowledge, attitude, and practices of healthcare workers in non-COVID areas of the hospital regarding the use of face mask to limit the spread of the novel coronavirus disease (COVID-19): an institutional cross-sectional online survey.

Source

Journal of SAFOG (South Asian Federation of Obstetrics and Gynaecology); 2020. 12(3):137-141. 27 ref.

Publisher

Jaypee Brothers Medical Publishers (P) Ltd

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Background: COVID-19 pandemic is stressing the already burdened healthcare systems all over the world. To prevent infrastructure from getting overwhelmed, it is required that infection prevention practices are followed by everyone. Objectives: To assess whether a knowledge gap exists in the correct use of face masks, attitude, and practices of participants in wearing a face mask to limit the spread of COVID-19. Materials and methods: Faculty, medical officers, and postgraduate trainees working in SN Medical College, Agra, were invited to participate in this survey. All participants were asked to complete a self-administered closed-ended questionnaire about their knowledge, attitudes, and practices regarding the use of face masks. Data were analyzed using descriptive statistics. Quality improvement intervention was done. Results: Among the 136 respondents, 73.5% knew the correct steps in wearing a face mask, and their attitudes toward face masks were strongly positive. Further analyses showed that respondents were equally likely to wear a face mask at hospital or at non-hospital places. Moreover, two-thirds respondents reported to have some problems while wearing a mask. Conclusion: Studied subjects had a positive attitude but poor level of knowledge and good practices regarding the use of surgical face mask. Awareness campaigns regarding the proper use of face mask by utilizing all forms of available media and resources would be helpful during this pandemic.

Publication Type

 Journal article.

<258>

Accession Number

 20203574341

Author

 Amjad Husain; Byrareddy, S. N.

Title

 Rapamycin as a potential repurpose drug candidate for the treatment of COVID-19.

Source

 Chemico-Biological Interactions; 2020. 331. 57 ref.

Publisher

 Elsevier Science Ireland Ltd.

Location of Publisher

 Shannon

Country of Publication

 Irish Republic

Abstract

  The novel human coronavirus-2 (HCoV-2), called SARS-CoV-2, is the causative agent of Coronavirus
Induced Disease (COVID-19) and has spread causing a global pandemic. Currently, there is no vaccine to
prevent infection nor any approved drug for the treatment. The development of a new drug is time-
consuming and cannot be relied on as a solution in combatting the immediate global challenge. In such a
situation, the drug repurposing becomes an attractive solution to identify the potential of COVID-19
treatment by existing drugs, which are approved for other indications. Here, we review the potential use of
rapamycin, an mTOR (Mammalian Target of Rapamycin) inhibitor that can be repurposed at low dosages
for the treatment of COVID-19. Rapamycin inhibits protein synthesis, delays aging, reduces obesity in
animal models, and inhibits activities or expression of pro-inflammatory cytokines such as IL-2, IL-6 and, IL-
10. Overall, the use of rapamycin can help to control viral particle synthesis, cytokine storms and
contributes to fight the disease by its anti-aging and anti-obesity effects. Since, rapamycin targets the host
factors and not viral machinery, it represents a potent candidate for the treatment of COVID-19 than
antiviral drugs as its efficacy is less likely to be dampened with high mutation rate of viral RNA. Additionally,
the inhibitory effect of rapamycin on cell proliferation may aid in reducing viral replication. Therefore, by
drug repurposing, low dosages of rapamycin can be tested for the potential treatment of COVID-19/SARS-
CoV-2 infection.

Publication Type

Journal article.

<259>

Accession Number

Author

Chami, H. A.; Saleh, W. A.; Aoun-Bacha, Z.; Khalil, P. B.; Chamandi, S.; Diab, K.; Juvelekian, G.; Yazbeck, P.; Kanj, S. S.

Title

Survey of COVID-19 preparedness among Lebanese ICU physicians. (Special Issue: COVID-19 pandemic.)

Source

Publisher

Location of Publisher

Beirut

Country of Publication

Lebanon

Abstract

Background: The rapidly spreading COVID-19 pandemic was associated with significant nosocomial transmissions and poses a risk to healthcare workers and hospitalized patients. We assessed intensive care units (ICU) resources, COVID-19 preparedness and the availability of personal protective equipment (PPE) to ICU practitioners in Lebanon. Methods: Between March 23 and 31, 2020, 250 ICU physicians working in Lebanon were surveyed on COVID-19 preparedness at their local hospitals, the availability of ICU resources, and adequate PPE. The survey was developed and administered by the Lebanese Society of Critical Care Medicine in collaboration with the Lebanese Pulmonary Society and the Lebanese Society of Anesthesiologists. Results: Eighty-nine ICU physicians working at 51 hospitals in all Lebanese regions completed the survey. The recommended PPE for ICU physicians (N95 masks, face shields and impermeable body-gowns) and the needed fitting and doning/doffing training were available to 34% of respondents. Dedicated wards and ICU for COVID-19 patients, negative pressure ICU rooms, video-laryngoscopes and COVID-19 testing were available on-site at 17% of respondents' hospitals. Conclusions: At the onset of the COVID-19 epidemic in Lebanon, the availability of recommended PPE to the surveyed ICU physicians in Lebanon and the available ICU resources and COVID-19 preparedness at their hospitals were limited.

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257

Publication Type

  Journal article.

<260>

Accession Number

  20203574175

Author

  Ayoub, E.; Bahous, S.; Chamsy, D.; Choukair, M.; Yared, N.; Ghorayeb, Z.; Houry, M.

Title

  The impact of COVID-19 on undergraduate medical education. (Special Issue: COVID-19 pandemic.)

Source

  Lebanese Medical Journal; 2020. 68(1/2):76-79. 3 ref.

Publisher

  Comite Scientifique de L'Ordre des Medecins du Liban

Location of Publisher

  Beirut

Country of Publication

  Lebanon

Abstract

  Coronavirus disease COVID-19 upended the whole world with everyone needing to practice social distancing, and quarantine. These measures affected education in general, and medical education in particular. Educators were faced with the dilemma of protecting the students versus fulfilling the mission of preparing qualified future healthcare providers. In Lebanon, the seven medical schools had to act quickly to set up distance education in response to the requested closure of universities and social distancing measures, in a way that preserves student education despite the challenging times. This paper will focus on the changes introduced to the curricula of the undergraduate medical education programs in Lebanon, involving both the teaching and learning facets and the assessment component at the preclinical and clinical phases.

Publication Type

  Journal article.

<261>

Accession Number

  20203574170

Author

  Hassoun, M.; Abyad, F.; Feghali, R.; Olaywan, L.; Jaafouri, H.; Ghalayini, W.; Saliba, M.; Hanna, P. A.

Title

  Rafic Hariri University Hospital preparedness sharing initial experience on COVID-19. (Special Issue: COVID-19 pandemic.)

Source

  Lebanese Medical Journal; 2020. 68(1/2):47-51. 8 ref.

Publisher

  Comite Scientifique de L'Ordre des Medecins du Liban

Location of Publisher

  Beirut

Country of Publication

  Lebanon

Abstract

  Background: The first cases of novel coronavirus (2019-ncov) infected patients occurred in Lebanon in February 2020 and March 2020. Rafic Hariri University Hospital was the first hospital in Lebanon that rapidly responded to this crisis through the effective use of scarce resources and the swift arrangement of departments as part of the contingency plan. It was able to mitigate the impact of the first COVID-19 wave in Lebanon through active management and proper preparedness. We analyzed data on the first 63 confirmed cases of COVID-19 to determine their epidemiological and clinical characteristics. Methods: We collected information on demographic characteristics, exposure history, the severity of clinical presentation and clinical outcomes of cases. Results: Among the first 63 patients with confirmed COVID-19, the median age was 37 years, where 55% were males. On average, the time to virologic cure was estimated at 17.5 days, while the length of stay was estimated at 16 days. The pattern showed a limited community transmission, with most cases either with a positive travel history to endemic areas or from close contact with index cases. Most of the cases were mild (65.1%), and few patients had comorbidities. Four patients presented with acute respiratory distress syndrome (ARDS), and two of them died. The fatality rate was 3.2%. Conclusion: This study describes the first cases of COVID-19 over one month after diagnosing the first case in Lebanon. Most of the cases were mild to moderate, but isolated in the hospital to limit community spread. This strategy has probably helped the country in containing the disease so far. Describing the clinical presentation over a more extended period might provide a better assessment of the clinical patterns. Meanwhile, the most effective measure is to prevent the spread of disease by a combination of proper infection prevention and control measures, early detection and isolation of cases, active contact tracing, and the quarantine of contacts.

Publication Type

Journal article.

<262>

Accession Number

  20203574045

Author

  Virghileanu, M.; Savulescu, I.; Mihai, B. A.; Nistor, C.; Dobre, R.

Title

  Nitrogen dioxide (NO2) pollution monitoring with sentinel-5P satellite imagery over Europe during the coronavirus pandemic outbreak.

Source

  Remote Sensing; 2020. 12(21). many ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Nitrogen dioxide (NO2) is one of the main air quality pollutants of concern in many urban and industrial areas worldwide, and particularly in the European region, where in 2017 almost 20 countries exceeded the NO2 annual limit values imposed by the European Commission Directive 2008/50/EC (EEA, 2019). NO2 pollution monitoring and regulation is a necessary task to help decision makers to search for a sustainable solution for environmental quality and population health status improvement. In this study, we propose a comparative analysis of the tropospheric NO2 column spatial configuration over Europe between similar periods in 2019 and 2020, based on the ESA Copernicus Sentinel-5P products. The results highlight the NO2 pollution dynamics over the abrupt transition from a normal condition situation to the COVID-19 outbreak context, characterized by a short-time decrease of traffic intensities and industrial activities, revealing remarkable tropospheric NO2 column number density decreases even of 85% in some of the European big cities. The validation approach of the satellite-derived data, based on a cross-correlation analysis with independent data from ground-based observations, provided encouraging values of the correlation coefficients (R^2), ranging between 0.5 and 0.75 in different locations. The remarkable decrease of NO2 pollution over Europe during the COVID-19 lockdown is highlighted by S-5P products and confirmed by the Industrial Production Index and air traffic volumes.

Publication Type

Journal article.

<263>

Accession Number

 20203573789

Author

 Zhang BingLi; Lu Qun; Liu Xu; Qiao Fu; Chen WenSen; Zhang HaoJun; Zhang WeiHong; Zhao XiuLi; Huang HuiPing; Yuan XiaoNing; Ma HongQiu; Wu HongMei; Fan ShanHong; Mao YiPing; Li Li; Niu YanJun; Yao Xi; Wu AnHua; Li LiuYi

Title

 Multicenter investigation of current status of use of personal protective equipment among healthcare workers during diagnosis and treatment of COVID-19. [Chinese]

Source

 Chinese Journal of Nosocomiology; 2020. 30(21):3224-3228. 14 ref.

Publisher

 Editorial Board of Chinese Journal of Nosocomiology

Location of Publisher

 Beijing

Country of Publication

 China

Abstract

OBJECTIVE: To investigate the use of personal protective equipment (PPE) of healthcare workers (HCWs) in the room where confirmed COVID-19 patients are admitted and understand the current status of prevention. METHODS: The healthcare workers who from medical aid teams in Hubei in 30 hospitals were randomly selected by the trained staff for hospital infection prevention, the basic characteristics of the enrolled subjects and the use of PPE were recorded, and the questionnaires were filled out through questionnaire star. RESULTS: The survey found that all the healthcare workers received theoretical training and practical training on the use of PPE before entering the isolation ward, 95.56% (2 433) of them were inspected or supervised by someone when they put on or took off PPE. 86.57% (2 204) of the healthcare workers wore two layers of masks at the same time, most of whom (1621, 63.67%) wore medical surgical mask and respirator at the same time. 57.50% (1 464) of the healthcare workers used goggles or face shield, 42.50% (1 082) of whom used goggles and face shield at the same time. 95.25% (2 425) of the healthcare workers wore coverall and disposable gown at the same time. 96.62% (2 460) of the healthcare workers wore boot covers and shoe covers at the same time. The proportion of the healthcare workers who wore two-layer hats was the highest (70.54%), and the proportion of the healthcare workers who wore two-layer gloves was also the highest (57.31%). CONCLUSION The use of PPE of the HCWs who are

from the medical aid teams has effectively prevented the COVID-19 infection, achieving a 'zero infection' among the 42.6 thousand HCWs. However, there are excessive use of PPE, and the rational use of PPE needs to be further standardized and explored.

Publication Type

  Journal article.

<264>

Accession Number

  20203573788

Author

  Gao HuiMin; Tian LingYun; Li Li; Su YaNan; Zhang Ying; Peng LiMing; Li Wan; Yang QiuHong; Lin Pan; Li YingLan

Title

  Questionnaire survey on occupational exposure of health care workers working in COVID-19 isolation wards of designated hospitals in 2020. [Chinese]

Source

  Chinese Journal of Nosocomiology; 2020. 30(21):3219-3223. 26 ref.

Publisher

  Editorial Board of Chinese Journal of Nosocomiology

Location of Publisher

  Beijing

Country of Publication

  China

Abstract

  OBJECTIVE: To investigate the status of occupational exposure of health care workers working in the COVID-19 isolation wards of designated hospitals so as to take targeted measures for occupational protection. METHODS By means of convenient sampling method, a self-designed questionnaire was applied to investigate the status of occupational exposure of health care workers who supported or worked in the designated hospitals for patients with COVID-19 from Mar. 1, to Mar. 5, 2020. RESULTS: Among the 293 health care workers working in the COVID-19 isolation wards, 28.00% had occupational exposure. The skin or hair' contacting with contaminated outer surface of personal protective equipment(PPE)(65.85%) was the most common type of occupational exposure. The removal of PPE(60.98%) and the operations that may generate aerosol(47.56%) were the major links where the occupational exposure took place. After the occupational exposure occurred, 68.29% of the health care workers carried out emergency treatment, and

71.95% of the health care workers were able to report the exposure according to standard procedures. The top 3 medical operations that were most likely to cause exposure were tracheotomy, bronchoscopy and endotracheal intubation. The top 3 nursing operations that were most likely to cause occupational exposure were artificial airway nursing, sputum suction and throat swab collection. The top 3 risk factors that were most likely to cause occupational exposure of health care workers were the implementation of operations that may generate aerosol, failure to comply with disinfection and isolation system, and sudden changes in the patients' condition for emergency rescue. CONCLUSION: There are varying degrees of occupational exposure among the health care workers working in the COVID-19 isolation wards of designated hospitals. It is necessary for the management department of medical institutions to formulate practical prevention and control measures according to the high frequency types, operation links and risk factors of the occupational exposure so as to reduce the risk of occupational exposure among the health care workers.

Publication Type

  Journal article.

<265>

Accession Number

  20203573644

Author

  Schubert, K.; Karousis, E. D.; Jomaa, A.; Scaiola, A.; Echeverria, B.; Gurzeler, L. A.; Leibundgut, M.; Thiel, V.; Muhlemann, O.; Ban, N.

Title

  SARS-CoV-2 Nsp1 binds the ribosomal mRNA channel to inhibit translation.

Source

  Nature Structural and Molecular Biology; 2020. 27(10):959-966. 40 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  The SARS-CoV-2 non-structural protein 1 (Nsp1), also referred to as the host shutoff factor, suppresses host innate immune functions. By combining cryo-electron microscopy and biochemistry, we show that

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SARS-CoV-2 Nsp1 binds to the human 40S subunit in ribosomal complexes, including the 43S pre-initiation complex and the non-translating 80S ribosome. The protein inserts its C-terminal domain into the mRNA channel, where it interferes with mRNA binding. We observe translation inhibition in the presence of Nsp1 in an in vitro translation system and in human cells. Based on the high-resolution structure of the 40S-Nsp1 complex, we identify residues of Nsp1 crucial for mediating translation inhibition. We further show that the full-length 5' untranslated region of the genomic viral mRNA stimulates translation in vitro, suggesting that SARS-CoV-2 combines global inhibition of translation by Nsp1 with efficient translation of the viral mRNA to allow expression of viral genes.

Publication Type

  Journal article.

<266>

Accession Number

  20203573616

Author

  Phuoc, M. N.

Title

  Influence of enzymatic concentration and incubation time in processing of pitaya (Hylocereus polyrhizus) fruit juice.

Source

  Research on Crops; 2020. 21(3):494-497.

Publisher

  Gaurav Society of Agricultural Research Information Centre

Location of Publisher

  Hisar

Country of Publication

  India

Abstract

  Pitaya or dragon fruit is highly evaluated due to its phytochemical constituents with numerous nutritional benefits but is very perishable during post-harvest owing to its high respiration rate. On the situation of the novel coronavirus (Covid-19) outbreak in China, many containers of dragon fruit get stuck at the border gate which can be converted into different value-added forms, juice is a case in point. Clarification is an important processing step in pitaya fruit juice processing and is essential to obtain a bright, clear appearance with low viscosity free from colloids, especially pectin. This study was conducted during 2020 at

Soc Trang Nanotech laboratory, Soc Trang province, Vietnam to evaluate the impact of pectinase concentrations (15, 20, 25, 30, 35 L/100mL) and incubation durations (30, 45, 60, 75, 90 minutes) at 35 degrees C to juice turbidity (NTU) and viscosity (cP). Results revealed that 30 L/100 mL of pectinase in incubation time of 75 minutes at 35 degrees C were adequate to achieve an excellent overall acceptance of pitaya juice. These operating parameters were beneficial for the subsequent membrane based clarification process.

Publication Type

Journal article.

<267>

Accession Number

20203573607

Author

Jin ZhenMing; Zhao Yao; Sun Yuan; Zhang Bing; Wang HaoFeng; Wu Yan; Zhu Yan; Zhu Chen; Hu TianYu; Du XiaoYu; Duan YinKai; Yu Jing; Yang XiaoBao; Yang XiuNa; Yang KaiLin; Liu Xiang; Guddat, L. W.; Xiao GengFu; Zhang Leike; Yang Haitao; Rao ZiHe

Title

Structural basis for the inhibition of SARS-CoV-2 main protease by antineoplastic drug carmofur.

Source

Nature Structural and Molecular Biology; 2020. 27(6):529-532. 25 ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

The antineoplastic drug carmofur is shown to inhibit the SARS-CoV-2 main protease (Mpro). Here, the X-ray crystal structure of Mpro in complex with carmofur reveals that the carbonyl reactive group of carmofur is covalently bound to catalytic Cys145, whereas its fatty acid tail occupies the hydrophobic S2 subsite. Carmofur inhibits viral replication in cells (EC50 = 24.30 M) and is a promising lead compound to develop new antiviral treatment for COVID-19.

Publication Type

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265

Journal article.

<268>

Accession Number

  20203573438

Author

  Cheshmehzangi Ali

Title

  Reflection on early lessons for urban resilience and public health enhancement during the COVID-19.

Source

  Health; 2020. 12(10):1390-1408. 77 ref.

Publisher

  Scientific Research Publishing

Location of Publisher

  Irvine

Country of Publication

  USA

Abstract

  With growing impacts on public health systems and economies across the world, as a result of the COVID-19 pandemic outbreak, we need to reflect on some of the early lessons for urban resilience enhancement. In this paper, a brief discussion is made through several recommendations that could make our cities more prepared specially in the probable future waves of this current outbreak or potential spikes in infections or clustered cases. The experiences from global examples highlighted in this study address what has worked in the past few months at the spatial levels of communities and cities. The COVID-19 outbreak highlighted the deficiencies and shortfall across multiple sectors of the urban systems and enabled us to identify risks, challenges, and pathways to better city management. With regard to urban resilience enhancement, the negative impacts of the COVID-19 outbreak are assessed to suggest a checklist of what could be done through early preparedness. The findings are novel in ongoing research related to urban resilience and public health during the COVID-19 pandemic. The early lessons here reflect on the ongoing situation of this pandemic outbreak, but could effactually help to enhance the resilience of our cities and communities, and especially addressing the protection of public health and societal well-being. The findings contribute to major sectors of urban resilience, city management, and public health. The recommendations from this study could be utilised and adapted in any context, allowing for the consideration of all-inclusive decision-making and much-enhanced planning processes.

Publication Type

Journal article.

<269>

Accession Number

20203573420

Author

Rabby, M. I. I.; Farzad Hossain

Title

Study of ongoing registered clinical trials on COVID-19: a narrative review.

Source

Sao Paulo Medical Journal; 2020. 138(5):441-456. 34 ref.

Publisher

Associacao Paulista de Medicina (APM)

Location of Publisher

Sao Paulo

Country of Publication

Brazil

Abstract

BACKGROUND: The dangerous SARS-CoV-2 virus first emerged in China in December 2019 and has rapidly spread worldwide. Currently, it has affected more than 2,850,000 people. No vaccine or drug is available yet, and therefore researchers and scientists are striving to identify potential drugs or vaccines for combating this virus. We were unable to find any review of the literature or analysis on ongoing registered clinical trials that reported diagnostic tests, therapeutics, vaccines and devices for COVID-19 along with estimated enrollment, participants' ages, study type, start and completion date, status, treatment/intervention and country. OBJECTIVE: To review ongoing trials relating to COVID-19. METHODS: A systematic search for clinical trials was conducted in the ClinicalTrials.gov database up to April 12, 2020. A total of 339 trials relating to COVID-19 were analyzed and key information on each trial was recorded. RESULTS: Most of the trials were being conducted in the United States and completion of most of them was expected by May 2020. They were mostly on drugs and treatment, while a minority were on diagnostic tests. The analysis showed that hydroxychloroquine was investigated in most of the trials. The trials identified were categorized into five classes: (a) diagnostic tests; (b) therapeutics; (c) biologics and vaccines; (d) devices and products; and (e) others. CONCLUSION: The trials identified have potential against COVID-19 that can be applied in treatment processes after the necessary investigations and experiments. Additionally, the items identified were organized in a proper way, which can assist in current research activities.

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267

Publication Type

Journal article.

<270>

Accession Number

20203573419

Author

Arac, S.; Donmezdi, S.

Title

Investigation of mental health among hospital workers in the COVID-19 pandemic: a cross-sectional study.

Source

Sao Paulo Medical Journal; 2020. 138(5):433-440. 23 ref.

Publisher

Associacao Paulista de Medicina (APM)

Location of Publisher

Sao Paulo

Country of Publication

Brazil

Abstract

BACKGROUND: The rapid spread of the COVID-19 epidemic has led to extraordinary measures taken worldwide, and has led to serious psychological disorders. Healthcare professionals face greater severity of stress burden, due both to their direct contact with patients with the virus and to the isolation dimension of this outbreak. OBJECTIVE: To examine psychiatric disorders such as anxiety, depression and sleep disorders among healthcare professionals working in an emergency department and a COVID-19 clinic. DESIGN AND SETTING: Cross-sectional study including healthcare professionals in the emergency department and other units serving patients with COVID-19, of a training and research hospital in Turkey. METHODS: 210 volunteers, including 105 healthcare professionals in the emergency department and 105 healthcare professionals working in other departments rendering services for COVID-19 patients, were included in this study. A sociodemographic data form and the Hospital Anxiety Depression Scale (HAD), Pittsburg Sleep Quality Index (PSQI), World Health Organization Quality of Life scale (WHOQOL-BREF-TR) and Religious Orientation Scale were applied to the volunteers. RESULTS: The perceived stress levels and PSQI subscores were found to be significantly higher among the volunteers working in the emergency department than among those in other departments. The risk of development of anxiety among women was 16.6 times higher than among men. CONCLUSIONS: Healthcare professionals on the frontline need systematic regular psychosocial support mechanisms. Anxiety due to fear of infecting family members can

be prevented through precautions such as isolation. However, it should be remembered that loneliness and feelings of missing family members consequent to isolation may increase the risk of depression.

Publication Type

Journal article.

<271>

Accession Number

20203573417

Author

Brandao, C. F. S.; Vaccarezza, G. F.; Bizario, J. C. da S.; Gois, A. F. T. de

Title

Clinical simulation strategies for knowledge integration relating to initial critical recognition and management of COVID-19 for use within continuing education and health-related academia in Brazil: a descriptive study.

Source

Sao Paulo Medical Journal; 2020. 138(5):385-392. 7 ref.

Publisher

Associacao Paulista de Medicina (APM)

Location of Publisher

Sao Paulo

Country of Publication

Brazil

Abstract

BACKGROUND: The COVID-19 pandemic has led to an immense need to develop training on case recognition and management, with a focus on patients' and health professionals' safety at several levels of healthcare settings in Brazil. Different simulation strategies can be included in the diverse clinical care phases for these patients. OBJECTIVE: To suggest a complete simulation-based training program for Brazilian hospitals and/or academic institutions at this moment of the pandemic. DESIGN AND SETTING: Descriptive analysis on possible simulated clinical cases using different methodologies, thereby supporting suspected or confirmed COVID-19 patients. METHODS: This was a reflective theoretical descriptive study on an educational program based on clinical simulation, with four practical phases at different performance and complexity levels. Wearing, handling and adequately disposing of personal protective equipment, along with specific respiratory procedures in different healthcare settings up to intensive care for seriously infected patients were addressed. RESULTS: This program was designed for application at different Brazilian

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healthcare levels through different clinical simulation strategies. Summaries of expected performance were suggested in order to standardize technical capacity within these simulation settings, so as to serve these levels. CONCLUSIONS: Developing training programs for situations such as the current COVID-19 pandemic promotes safety not only for patients but also for healthcare workers. In the present context, clear definition of which patients need hospital outpatient or inpatient care will avoid collapse of the Brazilian healthcare system. Institutions that do not have simulated environments can, through the examples described, adopt procedures to promote didactic information in order to help healthcare professionals during this time.

Publication Type

Journal article.

<272>

Accession Number

20203573100

Author

Cai Ge; Yue YaPing; Huang Jin; Li MeiFang

Title

Are emotion regulation strategies different among 3-6-year-old aggressive children? Evidence from China.

Source

Iranian Journal of Public Health; 2020. 49(12):2356-2366. 22 ref.

Publisher

School of Public Health and Institute of Public Health Research, Tehran University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Background: During the long-time home quarantine due to COVID-19, preschool-age children can be easily stricken by negative emotions, which give rise to aggressive behaviors. Aggressive behaviors are of different types at the preschool stage. We aimed to investigate the differences of emotion regulation strategies among children age 3-6 yr old with different aggression types and explore the relationship between emotion regulation strategies and aggressive behaviors. Methods: The aggressive behaviors of 1,187 children sampled (event sampling method) from 5 kindergartens in five cities in Henan Province of China were observed on the spot in 2020. Three aggression types (i.e., physical, verbal, and indirect) were

selected to conduct a questionnaire survey on emotion regulation strategies and discuss the differences among aggressive children in emotion regulation strategies. Results: Children of different genders are significantly different in aggressive behaviors and problem solving, as well as children at different age levels in self-comfort, passive reaction, and negative regulation strategies. Significant interaction exists between gender and aggression but not in negative regulation strategy; significant interaction also exists between age and aggression but not in cognitive reconstruction, substitutive activity, and aggressive behavior. Significant differences exist among children of different aggression types in positive and negative regulation strategies. The discrimination accuracy of emotion regulation strategies for aggression types is 66.5%. Conclusion: Significant differences exist among 3-6-yr-old aggressive children in emotion regulation strategies, and emotion regulation strategies can effectively distinguish aggressive children of different types.

Publication Type

 Journal article.

<273>

Accession Number

 20203573084

Author

 Laczko, D.; Hogan, M. J.; Toulmin, S. A.; Hicks, P.; Lederer, K.; Gaudette, B. T.; Castano, D.; Amanat, F.; Muramatsu, H.; Oguin, T. H.; Ojha, A.; Zhang, L.; Mu ZeKun; Parks, R.; Manzoni, T. B.; Roper, B.; Strohmeier, S.; Tombacz, I.; Arwood, L.; Nachbagauer, R.; Kariko, K.; Greenhouse, J.; Pessaint, L.; Porto, M.; Putman-Taylor, T.; Strasbaugh, A.; Campbell, T. A.; Lin, P. J. C.; Tam, Y. K.; Sempowski, G. D.; Farzan, M.; Choe HyeRyun; Saunders, K. O.; Haynes, B. F.; Andersen, H.; Eisenlohr, L. C.; Weissman, D.; Krammer, F.; Bates, P.; Allman, D.; Locci, M.; Pardi, N.

Title

 A single immunization with nucleoside-modified mRNA vaccines elicits strong cellular and humoral immune responses against SARS-CoV-2 in mice.

Source

 Immunity; 2020. 53(4):724-732. 42 ref.

Publisher

 Cell Press

Location of Publisher

 Cambridge

Country of Publication

 USA

Abstract

  SARS-CoV-2 infection has emerged as a serious global pandemic. Because of the high transmissibility of the virus and the high rate of morbidity and mortality associated with COVID-19, developing effective and safe vaccines is a top research priority. Here, we provide a detailed evaluation of the immunogenicity of lipid nanoparticle-encapsulated, nucleoside-modified mRNA (mRNA-LNP) vaccines encoding the full-length SARS-CoV-2 spike protein or the spike receptor binding domain in mice. We demonstrate that a single dose of these vaccines induces strong type 1 CD4+ and CD8+ T cell responses, as well as long-lived plasma and memory B cell responses. Additionally, we detect robust and sustained neutralizing antibody responses and the antibodies elicited by nucleoside-modified mRNA vaccines do not show antibody-dependent enhancement of infection in vitro. Our findings suggest that the nucleoside-modified mRNA-LNP vaccine platform can induce robust immune responses and is a promising candidate to combat COVID-19.

Publication Type

  Journal article.

<274>

Accession Number

  20203573016

Author

  Lei Hao; Xu MoDi; Wang Xiao; Xie Yu; Du XiangJun; Chen Tao; Yang Lei; Wang DaYan; Shu YueLong

Title

  Nonpharmaceutical interventions used to control COVID-19 reduced seasonal influenza transmission in China.

Source

  Journal of Infectious Diseases; 2020. 222(11):1780-1783. 14 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  To suppress the ongoing COVID-19 pandemic, the Chinese government has implemented nonpharmaceutical interventions (NPIs). Because COVID-19 and influenza have similar means of transmission, NPIs targeting COVID-19 may also affect influenza transmission. In this study, the extent to

which NPIs targeting COVID-19 have affected seasonal influenza transmission was explored. Indicators of seasonal influenza activity in the epidemiological year 2019-2020 were compared with those in 2017-2018 and 2018-2019. The incidence rate of seasonal influenza reduced by 64% in 2019-2020 (P < .001). These findings suggest that NPIs aimed at controlling COVID-19 significantly reduced seasonal influenza transmission in China.

Publication Type

  Journal article.

<275>

Accession Number

  20203572993

Author

  Duggan, C. P.; Kurpad, A.; Stanford, F. C.; Sunguya, B.; Wells, J. C.

Title

  Race, ethnicity, and racism in the nutrition literature: an update for 2020.

Source

  American Journal of Clinical Nutrition; 2020. 112(6):1409-1414. 70 ref.

Publisher

  Oxford University Press

Location of Publisher

  Cary

Country of Publication

  USA

Abstract

  Social disparities in the US and elsewhere have been terribly highlighted by the current COVID-19 pandemic but also an outbreak of state-sponsored violence. The field of nutrition, like other areas of science, has commonly used 'race' to describe research participants and populations, without the recognition that race is a social, not a biologic, construct. We review the limitations of classifying participants by race, and recommend a series of steps for authors, researchers and policymakers to consider when producing and reading the nutrition literature. We recommend that biomedical researchers, especially those in the field of nutrition, abandon the use of racial categories to explain biologic phenomena but instead rely on a more comprehensive framework of ethnicity; that authors consider not just race and ethnicity but many social determinants of health, including experienced racism; that race and

ethnicity not be conflated; that dietary pattern descriptions inform ethnicity descriptions; and that depersonalizating language be avoided.

Publication Type

Journal article.

<276>

Accession Number

20203572927

Author

Hossain, M. M.; Mark, S. H. K.; Kabir, A. H.; Das, P. P.; Islam, M. K.; Das, A.

Title

An epidemiological study of laboratory confirmed COVID-19 cases admitted in Dhaka medical college hospital.

Source

Journal of Medicine; 2020. 21(2):69-75. 33 ref.

Publisher

Bangladesh Society of Medicine

Location of Publisher

Dhaka

Country of Publication

Bangladesh

Abstract

Background: The objective of the study was to report the epidemiological characteristics of symptomatic laboratory confirmed COVID-19 patients seeking care from Dhaka Medical College Hospital (DMCH). Methods: This observational study was conducted in department of Medicine, DMCH for the period of 2 months following ethical approval. Total 100 RT-PCR confirmed COVID-19 patients were included and interviewed. Informed written consent was ensured before participation. Collected data were entered in a predesigned case record form and subsequently analyzed by SPSS-20. Results: Average age of presentation was 37.20+or-10.02(SD) years with male predominance (77%). Urban presence was in 90%. Thirty-two percent of the patients had comorbidities, with diabetes (16%) and hypertension (19%) being the most frequently observed. The most commonly observed symptoms was fever (65%), followed by cough (58%), breathlessness (42%), Dysgeusia (40%) and fatigue (33%). Mean duration of illness was 8.74+or-4.8 (SD) days. Overall mortality was 9%. All patients were managed according to the national guidelines and only 7% required ICU support. Conclusion: Patients were mostly middle-aged and male. Typical presentations were

fever, cough, breathlessness and dysgeusia. Overall mortality was 9% among the admitted patients and requirement of ICU was 7%. Further study with large sample size is recommended to get a more precise picture.

Publication Type

 Journal article.

<277>

Accession Number

 20203572919

Author

 Fahad Jibran Siyal; Zahid Ali Shaikh; Syed Zaryab Ahmed; Moazzam Ali Shahid; Faiza Agha; Mirhassan Khoso; Ayaz Ali Unar; Khalida Unar; Raheela Saleem; Muhammad Parial Shahani

Title

 Anxiety among COVID-19 physicians during the pandemic in the health care center of the rural region.

Source

 Archives of Pharmacy Practice; 2020. 11(4):91-93. 20 ref.

Publisher

 Medknow Publications

Location of Publisher

 Mumbai

Country of Publication

 India

Abstract

Introduction: The COVID-19 pandemic is likely to put healthcare professionals in critical circumstances globally, having to make intolerable assessments and work under extreme pressures. It is very difficult to provide care for all severely sick patients with reserved resources. This may affect a physician's mental health. Healthcare professionals are at greater risk of mental health concerns because they are allocating with tasks of the COVID-19 pandemic situation especially in rural areas where it is difficult to deal with uneducated attendants and patients. This study aims to assess the work pattern of doctors who are performing duties with COVID -19 patients. Results: A total of 33 doctors participated in this survey out of which the majority of the age group was found to be 27. In this survey 23 males (70%) and 10 females (30%) participated. 7 doctors (21.2%) were normal and they were not having anxiety, 12 of doctors (36.4%) were mild anxious, 8 doctors (24.2%) were moderate anxious, 6 doctors (18.2%) were having severe anxiety. Five males were normal, 6 males were mild anxious,7 males were moderate anxious and 5 males

were severely anxious, and 2 females were normal, 6 females were mild anxious, 1 female was moderate anxious and 1 female was severely anxious. Conclusion: In this study, we found that those doctors who performed duty with COVID 19 patients were more worried when assessed with the GAD-7 scale.

Publication Type

Journal article.

<278>

Accession Number

20203572822

Author

Gaspar, H. A.; Oliveira, C. F. de; Jacober, F. C.; Deus, E. R. de; Canuto, F.

Title

Home care as a safe alternative during the COVID-19 crisis.

Source

Revista da Associacao Medica Brasileira; 2020. 66(11):1482-1486. 11 ref.

Publisher

Associacao Medica Brasileira

Location of Publisher

Sao Paulo

Country of Publication

Brazil

Abstract

INTRODUCTION: There are several reports worldwide about the high mortality related to COVID-19 among residents of nursing homes. The worldwide concern about the safety of patients and professionals in these institutions is relevant. In Brasil, a large part of post-acute care and chronic patients is performed at home through Home Care (HC). OBJECTIVE: This study aims to evaluate the incidence of COVID-19 in Home Care patients and the clinical outcomes of these patients; it also aims to assess the impact of the epidemic on the number of patients, new admissions, and hospitalizations. METHODS: A descriptive study of the COVID-19 cases that affected the population in care by Home Doctor (a private company of Home Care), between the months of March 2020 and May 2020 and analysis of the total number of patients, the hospitalization and death rate in the period compared to the pre-epidemic period. RESULTS: There were 31 confirmed cases of COVID-19, 21 of which were male, mean age 73 years. All patients had multiple comorbidities, the most prevalent were: Systemic Arterial Hypertension (54%) and Stroke (35%). The incidence of COVID-19 was 1% in the studied population. There were 10 hospitalizations with 5 hospital deaths and one case of

home death (lethality 19%). Safe care was maintained, with a low death rate (0.6%) and hospitalization (6.1%). CONCLUSION: Home Care is able to maintain safe care during the pandemic due to COVID-19, with a low incidence of COVID-19, low hospitalization rate, and low mortality when compared to nursing homes institutions.

Publication Type

 Journal article.

<279>

Accession Number

 20203572705

Author

 Trypsteen, W.; Cleemput, J. van; Snippenberg, W. van; Gerlo, S.; Vandekerckhove, L.

Title

 On the whereabouts of SARS-CoV-2 in the human body: a systematic review.

Source

 PLoS Pathogens; 2020. 16(10). 208 ref.

Publisher

 Public Library of Sciences (PLoS)

Location of Publisher

 San Francisco

Country of Publication

 USA

Abstract

 Since SARS-CoV-2 appeared in the human population, the scientific community has scrambled to gather as much information as possible to find good strategies for the containment and treatment of this pandemic virus. Here, we performed a systematic review of the current (pre)published SARS-CoV-2 literature with a focus on the evidence concerning SARS-CoV-2 distribution in human tissues and viral shedding in body fluids. In addition, this evidence is aligned with published ACE2 entry-receptor (single cell) expression data across the human body to construct a viral distribution and ACE2 receptor body map. We highlight the broad organotropism of SARS-CoV-2, as many studies identified viral components (RNA, proteins) in multiple organs, including the pharynx, trachea, lungs, blood, heart, vessels, intestines, brain, male genitals and kidneys. This also implicates the presence of viral components in various body fluids such as mucus, saliva, urine, cerebrospinal fluid, semen and breast milk. The main SARS-CoV-2 entry receptor, ACE2, is expressed at different levels in multiple tissues throughout the human body, but its expression levels do

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not always correspond with SARS-CoV-2 detection, indicating that there is a complex interplay between virus and host. Together, these data shed new light on the current view of SARS-CoV-2 pathogenesis and lay the foundation for better diagnosis and treatment of COVID-19 patients.

Publication Type

Journal article.

<280>

Accession Number

20203572635

Author

Arafa, A.; Mohammed, Z.; Mahmoud, O.; Elshazley, M.; Ewis, A.

Title

Depressed, anxious, and stressed: what have healthcare workers on the frontlines in Egypt and Saudi Arabia experienced during the COVID-19 pandemic?

Source

Journal of Affective Disorders; 2021. 278:365-371. 41 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Introduction: As the Novel Corona Virus Disease (COVID-19) was declared by the world health organization a pandemic in March 2020, thousands of healthcare workers (HCWs) worldwide were on the frontlines fighting against the pandemic. Herein, we selected two Middle East countries; Egypt and Saudi Arabia to investigate the psychological impacts of the COVID-19 pandemic on their HCWs. Methods: In this cross-sectional study, a Google survey was used to access HCWs in many hospitals in Egypt and Saudi Arabia between the 14th and 24th of April 2020. The survey assessed HCWs regarding their sociodemographic and occupational features, sleeping hours, and psychological impacts of the COVID-19 pandemic using the Depression Anxiety Stress Scale-21 (DASS-21). Results: This study included 426 HCWs (48.4% physicians, 24.2% nurses, and 27.4% other HCWs). Of them, 69% had depression, 58.9% had anxiety, 55.9% had stress, and 37.3% had inadequate sleeping (<6 h/day). Female sex, age 30 years, working in Egypt, attending emergency and night shifts, watching/reading COVID-19 news 2 h/day, and not getting emotional support

from family, society, and hospital were associated with a high likelihood of depression, anxiety, stress, and inadequate sleeping. Limitations: The cross-sectional design restricted our ability to distinguish between preexisting and emerging psychological symptoms. Conclusion: HCWs on the frontlines in Egypt and Saudi Arabia experienced depression, anxiety, stress, and inadequate sleeping during the COVID-19 pandemic.

Publication Type

 Journal article.

<281>

Accession Number

 20203572617

Author

 Liu Yuan; Chen HongGuang; Zhang Nan; Wang Xing; Fan QinYi; Zhang YuLing; Huang LiPing; Hu Bo; Li MengQian

Title

 Anxiety and depression symptoms of medical staff under COVID-19 epidemic in China.

Source

 Journal of Affective Disorders; 2021. 278:144-148. 21 ref.

Publisher

 Elsevier Ltd

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

 Background: It is well known that unexpected pandemic has led to an increase in mental health problems among a variety of populations. Methods: In this study, an online non-probability sample survey was used to anonymously investigate the anxiety and depression symptoms among medical staff under the COVID-19 outbreak. The questionnaire included Perceived Stress Scale-10 (PSS-10), Generalized Anxiety Disorder 7-Item Scale (GAD-7) and Patient Health Questionnaire-9 (PHQ-9). Factors associated with anxiety and depression symptoms were estimated by logistic regression analysis. Results: A total of 1090 medical staff were investigated in this study. The estimated self-reported rates of anxiety symptoms, depression symptoms and both of the two were 13.3%, 18.4% and 23.9% respectively. Factors associated with self-reported anxiety symptoms include married status (OR=2.3, 95%CI: 1.2, 4.4), not living alone (OR=0.4, 95%CI: 0.2, 0.7), never confiding their troubles to others (OR=2.2, 95%CI: 1.4, 3.5) and higher stress

(OR=14.4, 95%CI: 7.8, 26.4). Factors associated with self-reported depression symptoms include not living alone (OR=0.4, 95%CI: 0.3, 0.7), sometimes/often getting care from neighbours (OR=0.6, 95%CI: 0.4, 0.9), never confiding their troubles to others (OR=2.0, 95%CI: 1.3, 3.0) and higher stress (OR=9.7, 95%CI: 6.2, 15.2). Limitations: The study was a non-probability sample survey. Besides, scales used in this study can only identify mental health states. Conclusions: Under outbreak of COVID-19, self-reported rates of anxiety symptoms and depression symptoms were high in investigated medical staff. Psychological interventions for those at high risk with common mental problems should be integrated into the work plan to fight against the epidemic.

Publication Type

 Journal article.

<282>

Accession Number

 20203572603

Author

 Sun NiuNiu; Wei LuoQun; Wang HongYun; Wang XianRu; Gao MingXia; Hu XinJun; Shi SuLing

Title

 Qualitative study of the psychological experience of COVID-19 patients during hospitalization.

Source

 Journal of Affective Disorders; 2021. 278:15-22. 47 ref.

Publisher

 Elsevier Ltd

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

  Background: Coronavirus disease 2019 (COVID-19) continues to spread across the globe, but patient experiences are rarely documented. Background: To explore the psychology of COVID-19 patients during hospitalization. Methods: A phenomenological and robust sampling approach was employed. Sixteen patients admitted to the First Affiliated Hospital of Henan University of Science and Technology with COVID-19 from 20th January to 1st March 2020 were selected. Data were collected through semi-structured interviews, phone calls, or face-to-face interviews using quarantine measures. Data were analyzed using the Colaizzi method. Results: The psychological experience of COVID-19 patients during

hospitalization could be summarized into five themes. Firstly, attitudes toward the disease included fear, denial, and stigma during the early stages, which gradually developed into acceptance in the later stages. Secondly, the major source of stress included the viral nature of the disease, quarantine measures, and concerns regarding the health of family members. Thirdly, reactions of body and mind included disease stage-dependent emotional responses, excessive attention to symptoms, rumination, and changes in diet, sleep, and behavior. Fourthly, supportive factors included psychological adjustments, medical care, and family and social support. Finally, the disease resulted in psychological growth and patients viewed problems with gratitude through the cherishing of life, family, bravery, and tenacity. Conclusion: COVID-19 patients gradually changed their attitude toward the disease and displayed emotional responses dependent on the stage of the disease. Negative emotions dominated during the early stages but gradually gave way to mixed positive and negative emotions. Active guidance of psychological growth may therefore promote physical and mental recovery in COVID-19 patients.

Publication Type

 Journal article.

<283>

Accession Number

 20203572593

Author

 Xiao, R.; Workman, A. D.; Puka, E.; Juang, J.; Naunheim, M. R.; Song, P. C.

Title

 Aerosolization during common ventilation scenarios. (Special section on COVID-19.)

Source

 Otolaryngology - Head and Neck Surgery; 2020. 163(4):702-704. 6 ref.

Publisher

 Sage Publications

Location of Publisher

 Thousand Oaks

Country of Publication

 USA

Abstract

 Otolaryngologists are at increased risk for exposure to suspected aerosol-generating procedures during the ongoing coronavirus disease 2019 (COVID-19) pandemic. In the present study, we sought to quantify differences in aerosol generation during common ventilation scenarios. We performed a series of 30-

second ventilation experiments on porcine larynx-trachea-lung specimens. We used an optical particle sizer to quantify the number of 1- to 10- micro m particles observed per 30-second period (PP30). No significant aerosols were observed with ventilation of intubated specimens (10.8+or-2.4 PP30 vs background 9.5+or-2.1, P = 1.0000). Simulated coughing through a tracheostomy produced 53.5+or-25.2 PP30, significantly more than background (P =.0121) and ventilation of an intubated specimen (P =.0401). These data suggest that undisturbed ventilation and thus intubation without stimulation or coughing may be safer than believed. Coughing increases aerosol production, particularly via tracheostomy. Otolaryngologists who frequently manage patient airways and perform tracheostomy are at increased risk for aerosol exposure and require appropriate personal protective equipment, especially during the ongoing COVID-19 pandemic.

Publication Type

Journal article.

<284>

Accession Number

20203572591

Author

Yeung, D. C. M.; Lai, R.; Wong, E. W. Y.; Chan, J. Y. K.

Title

Care of patients with a laryngectomy during the COVID-19 pandemic. (Special section on COVID-19.)

Source

Otolaryngology - Head and Neck Surgery; 2020. 163(4):695-698. 19 ref.

Publisher

Sage Publications

Location of Publisher

Thousand Oaks

Country of Publication

USA

Abstract

Patients with a laryngectomy are at increased risk for droplet-transmitted diseases and, therefore, COVID-19, which has now caused a worldwide pandemic. Adaptive measures to protect patients with a laryngectomy and their families were designed and implemented in the Hong Kong SAR (HK). Driven by the fear of severe acute respiratory syndrome in 2003, hospitals in HK have since modified infection control routines to prevent a repeat public health nightmare. To face COVID-19, caused by SARS-CoV-2, we have adapted guidelines for our patients with a laryngectomy. Contact precautions, droplet precautions with

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physical barriers, and hand and equipment hygiene are our mainstays of prevention against COVID-19, and sharing these routines is the aim of this article. The COVID-19 pandemic is still roaring ahead. Awareness and precautions for patients with a laryngectomy who may be at higher risk are outlined here and should be maintained during the current pandemic.

Publication Type

  Journal article.

<285>

Accession Number

  20203572266

Author

  Wu YuShan; Yan XiAng; Zhao Shi; Wang JingXuan; Ran JinJun; Dong Dong; Wang, M.; Fung Hong; Yeoh EngKiong; Chung YatNork [Chung, Y. N. R.]

Title

  Association of time to diagnosis with socioeconomic position and geographical accessibility to healthcare among symptomatic COVID-19 patients: a retrospective study in Hong Kong.

Source

  Health and Place; 2020. 66. many ref.

Publisher

  Elsevier B.V.

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  Early diagnosis is important to control COVID-19 outbreaks. This study aimed to assess how individual and area socioeconomic position and geographical accessibility to healthcare services were associated with the time to diagnosis among symptomatic COVID-19 patients in Hong Kong. Multivariable generalized linear regression was used to estimate the associations while adjusting for sociodemographic characteristics and case classification. This study found living in public rental housing and living in an area with low education were associated with longer time to diagnosis in the first wave of infections. Specifically, the risk of delayed diagnosis for public rental housing residents was mitigated by the higher density of public clinics/hospitals but was slightly increased by the higher density of private medical practitioners nearby. No such relations were found in the second wave of infections when the surveillance measures were enhanced. Given the

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grave impact of pandemics around the world, our findings call on taking inequalities into account when public health policies are being devised.

Publication Type

Journal article.

<286>

Accession Number

20203572239

Author

Tania Islam; Rahman, M. R.; Aydin, B.; Beklen, H.; Arga, K. Y.; Md Shahjaman

Title

Integrative transcriptomics analysis of lung epithelial cells and identification of repurposable drug candidates for COVID-19. (Special Issue: Therapeutic targets and pharmacological treatment of COVID-19.)

Source

European Journal of Pharmacology; 2020. 887. many ref.

Publisher

Elsevier Science Publishers B.V, Biomedical Division

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease, more commonly COVID-19 has emerged as a world health pandemic. There are couples of treatment methods for COVID-19, however, well-established drugs and vaccines are urgently needed to treat the COVID-19. The new drug discovery is a tremendous challenge; repurposing of existing drugs could shorten the time and expense compared with de novo drug development. In this study, we aimed to decode molecular signatures and pathways of the host cells in response to SARS-CoV-2 and the rapid identification of repurposable drugs using bioinformatics and network biology strategies. We have analyzed available transcriptomic RNA-seq COVID-19 data to identify differentially expressed genes (DEGs). We detected 177 DEGs specific for COVID-19 where 122 were upregulated and 55 were downregulated compared to control (FDR<0.05 and logFC 1). The DEGs were significantly involved in the immune and inflammatory response. The pathway analysis revealed the DEGs were found in influenza A, measles, cytokine signaling in the immune system, interleukin-4, interleukin -13, interleukin -17 signaling, and TNF signaling pathways. Protein-protein interaction analysis

showed 10 hub genes (BIRC3, ICAM1, IRAK2, MAP3K8, S100A8, SOCS3, STAT5A, TNF, TNFAIP3, TNIP1). The regulatory network analysis showed significant transcription factors (TFs) that target DEGs, namely FOXC1, GATA2, YY1, FOXL1, NFKB1. Finally, drug repositioning analysis was performed with these 10 hub genes and showed that in silico validated three drugs with molecular docking. The transcriptomics signatures, molecular pathways, and regulatory biomolecules shed light on candidate biomarkers and drug targets which have potential roles to manage COVID-19. ICAM1 and TNFAIP3 were the key hubs that have demonstrated good binding affinities with repurposed drug candidates. Dabrafenib, radicicol, and AT-7519 were the top-scored repurposed drugs that showed efficient docking results when they tested with hub genes. The identified drugs should be further evaluated in molecular level wet-lab experiments in prior to clinical studies in the treatment of COVID-19.

Publication Type

 Journal article.

<287>

Accession Number

 20203572237

Author

 Otreba, M.; Kosmider, L.; Rzepecka-Stojko, A.

Title

 Antiviral activity of chlorpromazine, fluphenazine, perphenazine, prochlorperazine, and thioridazine towards RNA-viruses. A review. (Special Issue: Therapeutic targets and pharmacological treatment of COVID-19.)

Source

 European Journal of Pharmacology; 2020. 887. many ref.

Publisher

 Elsevier Science Publishers B.V, Biomedical Division

Location of Publisher

 Amsterdam

Country of Publication

 Netherlands

Abstract

In 2020 the whole world focused on antivirus drugs towards SARS-CoV-2. Most of the researchers focused on drugs used in other viral infections or malaria. We have not seen such mobilization towards one topic in this century. The whole situation makes clear that progress needs to be made in antiviral drug

development. The first step to do it is to characterize the potential antiviral activity of new or already existed drugs on the market. Phenothiazines are antipsychotic agents used previously as antiseptics, anthelminthics, and antimalarials. Up to date, they are tested for a number of other disorders including the broad spectrum of viruses. The goal of this paper was to summarize the current literature on activity toward RNA-viruses of such drugs like chlorpromazine, fluphenazine, perphenazine, prochlorperazine, and thioridazine. We identified 49 papers, where the use of the phenothiazines for 23 viruses from different families were tested. Chlorpromazine, fluphenazine, perphenazine, prochlorperazine, and thioridazine possess anti-viral activity towards different types of viruses. These drugs inhibit clathrin-dependent endocytosis, cell-cell fusion, infection, replication of the virus, decrease viral invasion as well as suppress entry into the host cells. Additionally, since the drugs display activity at nontoxic concentrations they have therapeutic potential for some viruses, still, further research on animal and human subjects are needed in this field to verify cell base research.

Publication Type

Journal article.

<288>

Accession Number

20203572078

Author

Arun Srivastava

Title

COVID-19 and air pollution and meteorology-an intricate relationship: a review.

Source

Chemosphere; 2021. 263. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Corona virus is highly uncertain and complex in space and time. Atmospheric parameters such as type of pollutants and local weather play an important role in COVID-19 cases and mortality. Many studies were carried out to understand the impact of weather on spread and severity of COVID-19 and vice-versa. A

review study is conducted to understand the impact of weather and atmospheric pollution on morbidity and mortality. Studies show that aerosols containing corona virus generated by sneezes and coughs are major route for spread of virus. Viability and virulence of SARS-CoV-2 stuck on the surface of particulate matter is not yet confirmed. Studies found that an increase in particulate matter concentration causes more COVID-19 cases and mortality. Gaseous pollutant and COVID-19 cases are positively correlated. Local meteorology plays crucial role in the spread of corona virus and thus mortality. Decline in number of cases with rising temperature observed. Few studies also find that lowest and highest temperatures were related to lesser number of cases. Similarly humidity shows negative or no relationship with COVID-19 cases. Rainfall was not related whilst wind-speed plays positive role in spread of COVID-19. Solar radiation threats survival of virus, areas with lower solar radiation showed high exposure rate. Air quality tremendously improved during lockdown. A significant reduction in PM10, PM2.5, BC, NOx, SO2, CO and VOCs concentration were observed. Lockdown had a healing effect on ozone; significant increase in its concentration was observed. Aerosols Optical Depths were found to decrease up to 50%.

Publication Type

Journal article.

<289>

Accession Number

20203572056

Author

Sanjuan-Reyes, S.; Gomez-Olivan, L. M.; Islas-Flores, H.

Title

COVID-19 in the environment.

Source

Chemosphere; 2021. 263. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In recent months, the presence of an emerging disease of infectious etiology has paralyzed everyone, already being a public health problem due to its high rate of infection, a life-threatening disease. The WHO

has named it COVID-19, caused by severe acute respiratory syndrome coronavirus 2 (SARS-COV2). New studies provide information of the role of the environment in COVID-19 transmission process, mortality related to this infectious disease and the impact on human health. The following review aims to analyze information on the implications of COVID-19 infection on human health and the impact of its presence on the environment, from its transmission capacity and the role of air pollutants and climatological factors to reducing the air pollution during confinement. Likewise, it provides a vision of the impact on the environment and human health of exposure to disinfectants and the presence of COVID-19 in wastewater, among other actions.

Publication Type

  Journal article.

<290>

Accession Number

  20203571853

Author

  Suman Mor; Sahil Kumar; Tanbir Singh; Sushil Dogra; Vivek Pandey; Khaiwal Ravindra

Title

  Impact of COVID-19 lockdown on air quality in Chandigarh, India: understanding the emission sources during controlled anthropogenic activities.

Source

  Chemosphere; 2021. 263. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The variation in ambient air quality during COVID-19 lockdown was studied in Chandigarh, located in the Indo-Gangetic plain of India. Total 14 air pollutants, including particulate matter (PM10, PM2.5), trace gases (NO2, NO, NOx, SO2, O3, NH3, CO) and VOC's (benzene, toluene, o-xylene, m,p-xylene, ethylbenzene) were examined along with meteorological parameters. The study duration was divided into four parts, i.e., (a) 21 days of before lockdown (b) 21 days of the first phase of lockdown (c) 19 days of the second phase of lockdown (d) 14 days of the third phase of lockdown. The results showed significant reductions during the

first and second phases for all pollutants. However, concentrations increased during the third phase. The concentrations of SO2, O3, and m,p-xylene kept on increasing throughout the study period, except for benzene, which continuously decreased. The percentage decrease in the concentrations during consecutive periods of lockdown were 28.8%, 23.4% and 1.1% for PM2.5 and 36.8%, 22.8% and 2.4% for PM10 respectively. The Principal Component Analysis (PCA) and characteristic ratios identified vehicular pollution as a primary source during different phases of lockdown. During the lockdown, residential sources showed a significant adverse impact on the air quality of the city. Regional atmospheric transfer of pollutants from coal-burning and stubble burning were identified as secondary sources of air pollution. The findings of the study offer the potential to plan air pollution reduction strategies in the extreme pollution episodes such as during crop residue burning period over Indo-Gangetic plain.

Publication Type

Journal article.

<291>

Accession Number

20203571449

Author

Pabbaraju, K.; Wong, A. A.; Douesnard, M.; Ma, R.; Gill, K.; Dieu, P.; Fonseca, K.; Zelyas, N.; Tipples, G. A.

Title

A public health laboratory response to the pandemic. (Special Issue: Diagnostic testing for severe acute respiratory syndrome coronavirus 2 and lessons from this pandemic.)

Source

Journal of Clinical Microbiology; 2020. 58(8). 11 ref.

Publisher

American Society for Microbiology (ASM)

Location of Publisher

Washington, D.C.

Country of Publication

USA

Abstract

An outbreak of coronavirus disease 2019 (COVID-19) caused by a novel coronavirus (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]) began in Wuhan, Hubei, China, in December 2019 and spread rapidly worldwide. The response by the Alberta Precision Laboratories, Public Health Laboratory (ProvLab), AB, Canada, included the development and implementation of nucleic acid detection-based

assays and dynamic changes in testing protocols for the identification of cases as the epidemic curve increased exponentially. This rapid response was essential to slow down and contain transmission and provide valuable time to the local health authorities to prepare appropriate response strategies. As of May 24, 2020, 236,077 specimens were tested, with 6,475 (2.74%) positives detected in the province of Alberta, Canada. Several commercial assays are now available; however, the response from commercial vendors to develop and market validated tests is a time-consuming process. In addition, the massive global demand made it difficult to secure a reliable commercial supply of testing kits and reagents. A public health laboratory serves a unique and important role in the delivery of health care. One of its functions is to anticipate and prepare for novel emerging pathogens with a plan for pandemic preparedness. Here, we outline the response that involved the development and deployment of testing methodologies that evolved as SARS-CoV-2 spread worldwide, the challenges encountered, and mitigation strategies. We also provide insight into the organizational structure of how a public health response is coordinated in Alberta, Canada, and its benefits.

Publication Type

 Journal article.

<292>

Accession Number

 20203571328

Author

 Ramos e Corte, A. C.; Sousa, J. P. G. de; Sousa, I. F. G. de; Garcia, R. M.; Stancati, J.

Title

 COVID-19 safety recommendations for the reopening of the Dr. Joaquim Grava Corinthians training facility.

Source

 Revista Brasileira de Medicina do Esporte; 2020. 26(5):382-385. 15 ref.

Publisher

 Sociedade Brasileira de Medicina do Esporte

Location of Publisher

 Rio de Janeiro

Country of Publication

 Brazil

Abstract

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290

Since December 2019, the world has been fighting the SARS-CoV2 virus (severe acute respiratory syndrome coronavirus 2). Little is known about vaccines and forms of treatment at this point. However, the importance of preventing transmission is very clear, and one of the main measures is social isolation. Major sports tournaments, including soccer championships, have been suspended or cancelled due to COVID-19, on the grounds of our understanding of the importance of social isolation. Accordingly, large clubs have handed over their stadiums for the construction of field hospitals, and have encouraged health care by providing guidance on hygiene and social distancing. The involvement of soccer in the prevention of this pandemic is due to the fact that its managers understand the importance of this sport in the process, and its influence on fans and players. Over the years, soccer has incorporated scientific and technological knowledge into the game, which has frequently served as a role model for other types of sport and for the population. Therefore, in these extreme times of the COVID-19 pandemic, there is no reason to believe it would be any different, and standpoints taken by soccer teams serve as an example and reiterate their role in the educational commitment to society and respect for government authorities. As a result, a protocol was drawn up for the resumption of training, in which all recommendations to be followed by players, managers/backroom staff and employees are in accordance with official health agencies of the national and international government. In other words, the resumption of training is subject to the authorization of government authorities. Level of evidence III; Descriptive study.

Publication Type

Journal article.

<293>

Accession Number

20203571326

Author

Ramos e Corte, A. C.; Camargo-Junior, F.; Chalhub, T.; Morisson de Moraes Filho, J.; Santos, R.; Feitosa, F.; Freire, R.; Benayon, P.; Hausen, M.; Bachini, F.; Wolff, A.; Pereira, G.; Aguiar, R.; Itaborahy, A.

Title

COVID-19 and its effect on olympic sport: the importance of studying social isolation and the harm it causes, in order to minimize.

Source

Revista Brasileira de Medicina do Esporte; 2020. 26(5):371-377. 32 ref.

Publisher

Sociedade Brasileira de Medicina do Esporte

Location of Publisher

Rio de Janeiro

Country of Publication

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291

Brazil

Abstract

In March 2020, the World Health Organization (WHO) declared the disease caused by the SARS-CoV2 virus, known as COVID-19, to be a pandemic. The sporting world, too, is suffering from the global effects of this disease, with the postponement or cancellation of competitions, including the 2020 Tokyo Olympic Games. As a proposal for containing the disease, social isolation was declared. Despite the importance of this measure, it was harmful for Olympic athletes, as they had to stay away from their training site and trainers, as well as their interdisciplinary teams. It is therefore important to study this harm caused, in order to minimize it. In general, it is believed that regular physical activity is associated with improved immune system functioning. The lack of training can therefore have significant consequences for the performance and health of the Olympic athlete. From the athlete's point of view, the impaired immune system, due to the reduced frequency of physical exercise, leaves them more vulnerable to contracting or developing infections or other diseases. The risk of harm due to the decreased performance of preventive works is also evident in this population. The reductions in training load and intensity can cause changes in the athlete's body composition and affect various aspects of cardiorespiratory fitness, as well as reducing strength levels and muscle potency. In relation to the athlete's mental health, two aspects are particularly challenging: isolation and uncertainty. Based on the possible harm caused by social isolation, the need is seen for a specific and joint work, in an attempt to minimize it. This work addresses the following topics: (I) context: transmission, symptoms, diagnosis, treatment, discharge criteria, isolation and post-pandemic consequences; (II) harm and proposals: nutritional, physiological, biomechanical and psychological. Level of evidence II; Review Article.

Publication Type

  Journal article.

<294>

Accession Number

  20203571288

Author

  Hou Wei

Title

  Characterization of codon usage pattern in SARS-CoV-2.

Source

  Virology Journal; 2020. 17(138). 20 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The outbreak of coronavirus disease 2019 (COVID-19) due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has posed significant threats to international health. The genetic traits as well as evolutionary processes in this novel coronavirus are not fully characterized, and their roles in viral pathogenesis are yet largely unknown. To get a better picture of the codon architecture of this newly emerging coronavirus, in this study we perform bioinformatic analysis, based on publicly available nucleotide sequences of SARS-CoV-2 along with those of other members of human coronaviruses as well as non-human coronaviruses in different hosts, to take a snapshot of the genome-wide codon usage pattern of SARS-CoV-2 and uncover that all over-represented codons end with A/U and this newly emerging coronavirus has a relatively low codon usage bias, which is shaped by both mutation pressure and natural selection. Additionally, there is slight variation in the codon usage pattern among the SARS-CoV-2 isolates from different geo-locations. Furthermore, the overall codon usage pattern of SARS-CoV-2 is generally similar to that of its phylogenetic relatives among non-human betacoronaviruses such as RaTG13. Taken together, we comprehensively analyze the characteristics of codon usage pattern in SARS-CoV-2 via bioinformatic approaches. The information from this research may not only be helpful to get new insights into the evolution of SARS-CoV-2, but also have potential value for developing coronavirus vaccines.

Publication Type

Journal article.

<295>

Accession Number

20203571169

Author

Zhang Shuai; Guo MengFei; Wu Feng; Xiong Nian; Ma YanLing; Wang ZhiHui; Duan LiMin; Chen Lan; Ouyang HaiXia; Jin Yang

Title

Factors associated with asymptomatic infection in health-care workers with severe acute respiratory syndrome coronavirus 2 infection in Wuhan, China: a multicentre retrospective cohort study.

Source

Clinical Microbiology and Infection; 2020. 26(12):1670-1675. 28 ref.

Publisher

Elsevier

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293

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Objectives: To describe the fraction of asymptomatic health-care workers (HCWs) in two designated hospitals for coronavirus disease 2019 (COVID-19) treatment in Wuhan and explore the factors associated with asymptomatic severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Methods: All HCWs in Wuhan Union Hospital and Wuhan Red Cross Hospital with either positive SARS-CoV-2 nucleic acid or positive antibody test before 18 April 2020 were included. Exposure, epidemiological and demographic information were retrospectively collected by a structured questionnaire. Medical records were also reviewed for clinical characteristics and CT images of HCWs. Results: As of 18 April 2020, a total of 424 HCWs were identified. Among them, 276 (65.1%) were symptomatic and 148 (34.9%) were asymptomatic. Fifty-five (19.9%) families of the symptomatic HCWs and 16 (10.8%) families of the asymptomatic HCWs were infected with SARS-CoV-2. HCWs with infected family members tended to be symptomatic (OR 2.053, 95% CI 1.130-3.730; p 0.018). Multivariable logistic regression analysis exhibited that performing tracheal intubation or extubation (OR 4.057, 95% CI 1.183-13.909; p 0.026) was associated with an increased likelihood of symptomatic SARS-CoV-2 infection, whereas consistent use of N95 respirators (OR 0.369, 95% CI 0.201-0.680; p 0.001) and eye protection (OR 0.217, 95% CI 0.116-0.404; p < 0.001) were associated with an increased likelihood of asymptomatic SARS-CoV-2 infection. Conclusions: Asymptomatic SARS-CoV-2 infection in HCWs comprised a considerable proportion of HCW infections during the pandemic of COVID-19. Those who performed tracheal intubation or extubation were most likely to develop related symptoms, whereas those taking aggressive measures, including consistent use of N95 masks and eye protection, tended to be asymptomatic cases.

Publication Type

Journal article.

<296>

Accession Number

20203571114

Author

Halstead, S. B.; Katzelnick, L.

Title

COVID-19 vaccines: should we fear ADE?

Source

Journal of Infectious Diseases; 2020. 222(12):1946-1950. 50 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Might COVID-19 vaccines sensitize humans to antibody-dependent enhanced (ADE) breakthrough infections? This is unlikely because coronavirus diseases in humans lack the clinical, epidemiological, biological, or pathological attributes of ADE disease exemplified by dengue viruses (DENV). In contrast to DENV, SARS and MERS CoVs predominantly infect respiratory epithelium, not macrophages. Severe disease centers on older persons with preexisting conditions and not infants or individuals with previous coronavirus infections. Live virus challenge of animals given SARS or MERS vaccines resulted in vaccine hypersensitivity reactions (VAH), similar to those in humans given inactivated measles or respiratory syncytial virus vaccines. Safe and effective COVID-19 vaccines must avoid VAH.

Publication Type

  Journal article.

<297>

Accession Number

  20203571093

Author

  Bello-Chavolla, O. Y.; Bahena-Lopez, J. P.; Antonio-Villa, N. E.; Vargas-Vazquez, A.; Gonzalez-Diaz, A.; Marquez-Salinas, A.; Fermin-Martinez, C. A.; Naveja, J. J.; Aguilar-Salinas, C. A.

Title

  Predicting mortality due to SARS-CoV-2: a mechanistic score relating obesity and diabetes to COVID-19 outcomes in Mexico.

Source

  Journal of Clinical Endocrinology & Metabolism; 2020. 105(8):2752-2761. 46 ref.

Publisher

  Oxford University Press

Location of Publisher

  Cary

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295

Country of Publication

USA

Abstract

Background: The SARS-CoV-2 outbreak poses a challenge to health care systems due to its high complication rates in patients with cardiometabolic diseases. Here, we identify risk factors and propose a clinical score to predict COVID-19 lethality, including specific factors for diabetes and obesity, and its role in improving risk prediction. Methods: We obtained data of confirmed and negative COVID-19 cases and their demographic and health characteristics from the General Directorate of Epidemiology of the Mexican Ministry of Health. We investigated specific risk factors associated to COVID-19 positivity and mortality and explored the impact of diabetes and obesity on modifying COVID-19-related lethality. Finally, we built a clinical score to predict COVID-19 lethality. Results: Among the 177 133 subjects at the time of writing this report (May 18, 2020), we observed 51 633 subjects with SARS-CoV-2 and 5,332 deaths. Risk factors for lethality in COVID-19 include early-onset diabetes, obesity, chronic obstructive pulmonary disease, advanced age, hypertension, immunosuppression, and chronic kidney disease (CKD); we observed that obesity mediates 49.5% of the effect of diabetes on COVID-19 lethality. Early-onset diabetes conferred an increased risk of hospitalization and obesity conferred an increased risk for intensive care unit admission and intubation. Our predictive score for COVID-19 lethality included age 65 years, diabetes, early-onset diabetes, obesity, age < 40 years, CKD, hypertension, and immunosuppression and significantly discriminates lethal from non-lethal COVID-19 cases (C-statistic = 0.823). Conclusions: Here, we propose a mechanistic approach to evaluate the risk for complications and lethality attributable to COVID-19, considering the effect of obesity and diabetes in Mexico. Our score offers a clinical tool for quick determination of high-risk susceptibility patients in a first-contact scenario.

Publication Type

Journal article.

<298>

Accession Number

20203571077

Author

Torrinhas, R. S.; Calder, P. C.; Lemos, G. O.; Waitzberg, D. L.

Title

Parenteral fish oil: an adjuvant pharmacotherapy for coronavirus disease 2019?

Source

Nutrition; 2021. 81. 39 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

The new coronavirus associated with severe acute respiratory syndrome (SARS-CoV-2), surprisingly, does not affect only the lungs. The severe response to SARS-CoV-2 appears to include a "cytokine storm," which indicates a state of hyperinflammation and subsequent dysfunction of multiple organs and tissues in the most severe cases. This could be the reason why populations at the highest risk for death from the SARS-CoV-2 infection-induced disease (coronavirus disease 2019 [COVID-19]) are those suffering from chronic low-grade inflammation, but prone to hyperinflammation. This includes individuals of advanced age and those with obesity, type 2 diabetes, hypertension, and metabolic syndrome. Inflammation resolution is strongly dependent on lipid mediators, the specialized pro-resolution mediators (SPMs). -3 polyunsaturated fatty acids (-3 PUFAs) are precursors of very potent SPMs, including resolvins, protectins, and maresins. Additionally, they are associated with a less aggressive inflammatory initiation, after competing with -6 fatty acids for eicosanoid synthesis. Therefore, it makes sense to consider the use of -3 PUFAs for clinical management of COVID-19 patients. -3 PUFAs may be given by oral, enteral, or parenteral routes; however, the parenteral route favors faster incorporation into plasma phospholipids, blood cells, and tissues. Here, we discuss these aspects to propose the parenteral infusion of -3 PUFAs as adjuvant immunopharmacotherapy for hospitalized patients with COVID-19.

Publication Type

Journal article.

<299>

Accession Number

20203571069

Author

Manzanares, W.; Moreira, E.; Hardy, G.

Title

Pharmaconutrition revisited for critically ill patients with coronavirus disease 2019 (COVID-19): does selenium have a place?

Source

Nutrition; 2021. 81. 47 ref.

Publisher

Elsevier

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Location of Publisher

New York

Country of Publication

USA

Abstract

Coronavirus disease 2019 (COVID-19) is a global pandemic causing one of the biggest challenges for critical care medicine. Mortality from COVID-19 is much greater in elderly men, many of whom succumb to acute respiratory distress syndrome (ARDS) triggered by the viral infection. Because there is no specific antiviral treatment against COVID-19, new strategies are urgently needed. Selenium is an essential trace element with antioxidant and immunomodulatory effects. Poor nutritional status increases the pathogenicity of viruses and low selenium in particular can be a determinant of viral virulence. In the past decade, selenium pharmaconutrition studies have demonstrated some reduction in overall mortality, including how reduced incidence of ventilator-associated pneumonia and infectious complications such as ARDS in the critically ill. Consequently, we postulate that intravenous selenium therapy, could be part of the therapeutic fight against COVID-19 in intensive care unit patients with ARDS and that outcomes could be affected by age, sex, and body weight. Our working hypothesis addresses the question: Could high-dose selenite pharmaconutrition, as an early pharmacologic intervention, be effective at reducing the incidence and the progression from type 1 respiratory failure (non-ARDS) to severe ARDS, multiorgan failure, and new infectious complications in patients with COVID-19 patients?

Publication Type

Journal article.

<300>

Accession Number

20203571067

Author

Fedele, D.; Francesco, A. de; Riso, S.; Collo, A.

Title

Obesity, malnutrition, and trace element deficiency in the coronavirus disease (COVID-19) pandemic: an overview.

Source

Nutrition; 2021. 81. 284 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

The world is currently facing the coronavirus disease (COVID-19) pandemic which places great pressure on health care systems and workers, often presents with severe clinical features, and sometimes requires admission into intensive care units. Derangements in nutritional status, both for obesity and malnutrition, are relevant for the clinical outcome in acute illness. Systemic inflammation, immune system impairment, sarcopenia, and preexisting associated conditions, such as respiratory, cardiovascular, and metabolic diseases related to obesity, could act as crucial factors linking nutritional status and the course and outcome of COVID-19. Nevertheless, vitamins and trace elements play an essential role in modulating immune response and inflammatory status. Overall, evaluation of the patient's nutritional status is not negligible for its implications on susceptibility, course, severity, and responsiveness to therapies, in order to perform a tailored nutritional intervention as an integral part of the treatment of patients with COVID-19. The aim of this study was to review the current data on the relevance of nutritional status, including trace elements and vitamin status, in influencing the course and outcome of the disease 3 mo after the World Health Organization's declaration of COVID-19 as a pandemic.

Publication Type

Journal article.

<301>

Accession Number

20203571054

Author

Telukdarie, A.; Munsamy, M.; Mohlala, P.

Title

Analysis of the impact of COVID-19 on the food and beverages manufacturing sector.

Source

Sustainability; 2020. 12(22). 39 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

 Switzerland

Abstract

   The globe has been subjected to an unprecedented health challenge in the form of COVID-19, indiscriminately impacting the global economy, global supply chains, and nations. The resolution of this unprecedented challenge does not seem to be in the short-term horizon but rather something the globe has to live with. Initial data provides for some insights on responses, precautions, and sustainability protocols and processes. The Food and Beverages Manufacturing sector in South Africa (SA) and globally is an expeditious respondent to the COVID-19 challenge. Food is essential for human existence, but the food value chain is subjected to significant COVID-19 risks. The Food and Beverage Sector Education and Training Authority is responsible for skills development in the Food and Beverages (FoodBev) Manufacturing Sector in South Africa and seeks to quantify Foodbev sustainability. This research paper reviews global literature, performs a high-level knowledge classification, with the aim of expedited awareness, knowledge sharing, and most importantly, quantification of an expedited response, within the FoodBev Manufacturing sector in SA. The research is contextualized via a SA sector-based instrument deployment and data analysis. The paper provides insights into COVID-19 impact, adaptations, and responses in the SA Food and Beverages Manufacturing sector.

Publication Type

 Journal article.

<302>

Accession Number

 20203571035

Author

 Umana-Hermosilla, B.; Fuente-Mella, H. de la; Elortegui-Gomez, C.; Fonseca-Fuentes, M.

Title

 Multinomial logistic regression to estimate and predict the perceptions of individuals and companies in the face of the COVID-19 pandemic in the Nuble region, Chile.

Source

 Sustainability; 2020. 12(22). 88 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

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300

Country of Publication

 Switzerland

Abstract

The Coronavirus Disease 2019 (COVID-19) pandemic is transforming the world we live in, revealing our health, economic, and social weaknesses. In the local economy, the loss of job opportunities, the uncertainty about the future of small and medium-sized companies and the difficulties of families to face the effects of this crisis, invite us to investigate the perception of the local community. Based on a questionnaire applied to 313 citizens and 51 companies, this study explored the perception of these actors on the effects of the pandemic at the local level and determined the main factors that influenced their assessment using a multinomial logistic regression model. The results indicated a systematic concern for issues of employment, job security, and household debt. The variables of age and sex were significant when analyzing the vulnerability of certain groups, especially women and the elderly, to face the effects of the crisis and their role as citizens. At the business level, the focus was on economic policies that support its operational continuity and management capacity to face a changing scenario.

Publication Type

 Journal article.

<303>

Accession Number

 20203571004

Author

 Coccia, M.

Title

 How (un)sustainable environments are related to the diffusion of COVID-19: the relation between coronavirus disease 2019, air pollution, wind resource and energy.

Source

 Sustainability; 2020. 12(22). 53 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

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301

Abstract

   The pandemic caused by novel coronavirus disease 2019 (COVID-19) is generating a high number of cases and deaths, with negative effects on public health and economic systems. One of the current questions in the contemporary environmental and sustainability debate is how high air pollution and reduced use of renewable energy can affect the diffusion of COVID-19. This study endeavors to explain the relation between days of air pollution, wind resources and energy, and the diffusion of COVID-19 to provide insights into sustainable policy to prevent future epidemics. The statistical analysis here focuses on a case study of Italy, one of the first countries to experience a rapid increase in confirmed cases and deaths. The results reveal two main findings: (1) cities with high wind speed and high wind energy production have a lower number of cases of COVID-19 in the context of a more sustainable environment; (2) cities located in hinterland zones with high air pollution, low wind speed and less wind energy production have a greater number of cases and total deaths. The results presented here suggest that the pandemic caused by novel coronavirus (SARS-CoV-2) and future epidemics similar to COVID-19 cannot be solved only with research in medicine but the solution also needs advanced capabilities and technologies for supporting sustainable development based on the reduction of air pollution and increase of production in renewable energy to improve air quality and as a consequence public health.

Publication Type

   Journal article.

<304>

Accession Number

   20203570985

Author

   Yusup, Y.; Ramli, N. K.; Kayode, J. S.; Yin, C. S.; Hisham, S.; Hassim Mohamad Isa; Ahmad, M. I.

Title

   Atmospheric carbon dioxide and electricity production due to lockdown.

Source

   Sustainability; 2020. 12(22). 36 ref.

Publisher

   MDPI AG

Location of Publisher

   Basel

Country of Publication

   Switzerland

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302

Abstract

We analyzed real-time measurements of atmospheric carbon dioxide (CO_2), with total electricity production and nationwide restrictions phases in China, the United States of America, Europe, and India due to the novel coronavirus COVID-19 pandemic and its effects on atmospheric CO_2. A decline of 3.7% in the global energy demand at about 150 million tonnes of oil equivalent (Mtoe) in the first quarter (Q1) of 2020 was recorded compared to Q1 2019 due to the cutback on international economic activities. Our results showed that: (1) electricity production for the same period in 2018, 2019, and 2020 shrunk at an offset of 9.20%, which resulted in a modest reduction (-1.79%) of atmospheric CO_2 to the 2017-2018 CO_2 level; (2) a non-seasonal, abrupt, and brief atmospheric CO_2 decrease by 0.85% in mid-February 2020 could be due to Phase 1 restrictions in China. The results indicate that electricity production reduction is significant to the short-term variability of atmospheric CO_2. It also highlights China's significant contribution to atmospheric CO_2, which suggests that, without the national restriction of activities, CO_2 concentration is set to exceed 2019 by 1.79%. Due to the lockdown, it quickly decreased and sustained for two months. The results underscore atmospheric CO_2 reductions on the monthly time scale that can be achieved if electricity production from combustible sources was slashed. The result could be useful for cost-benefit analyses on the decrease in electricity production of combustible sources and the impact of this reduction on atmospheric CO_2.

Publication Type

Journal article.

<305>

Accession Number

20203570983

Author

Heo Seulkee; Lim, C. C.; Bell, M. L.

Title

Relationships between local green space and human mobility patterns during COVID-19 for Maryland and California, USA.

Source

Sustainability; 2020. 12(22). 59 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Human mobility is a significant factor for disease transmission. Little is known about how the environment influences mobility during a pandemic. The aim of this study was to investigate an effect of green space on mobility reductions during the early stage of the COVID-19 pandemic in Maryland and California, USA. For 230 minor civil divisions (MCD) in Maryland and 341 census county divisions (CCD) in California, we obtained mobility data from Facebook Data for Good aggregating information of people using the Facebook app on their mobile phones with location history active. The users' movement between two locations was used to calculate the number of users that traveled into an MCD (or CCD) for each day in the daytime hours between 11 March and 26 April 2020. Each MCD's (CCD's) vegetation level was estimated as the average Enhanced Vegetation Index (EVI) level for 1 January through 31 March 2020. We calculated the number of state and local parks, food retail establishments, and hospitals for each MCD (CCD). Results showed that the daily percent changes in the number of travels declined during the study period. This mobility reduction was significantly lower in Maryland MCDs with state parks (p-value = 0.045), in California CCDs with local-scale parks (p-value = 0.048). EVI showed no association with mobility in both states. This finding has implications for the potential impacts of green space on mobility under an outbreak. Future studies are needed to explore these findings and to investigate changes in health effects of green space during a pandemic.

Publication Type

Journal article.

<306>

Accession Number

20203570930

Author

Alaimo, L. S.; Fiore, M.; Galati, A.

Title

How the COVID-19 pandemic is changing online food shopping human behaviour in Italy.

Source

Sustainability; 2020. 12(22). 73 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The advent of the Internet has significantly changed consumption patterns and habits. Online grocery shopping is a way of purchasing food products using a web-based shopping service. The current COVID-19 pandemic is determining a rethinking of purchase choice elements and of consumers' behavior. This work aims to investigate which characteristics can affect the decision of online food shopping during the pandemic emergency in Italy. In particular, the work aims to analyze the effects of a set of explanatory variables on the level of satisfaction for the food online shopping experience. For achieving this aim, the proportional odds version of the cumulative logit model is carried out. Data derive from an anonymous on-line questionnaire administrated during the first months of the pandemic and filled by 248 respondents. The results of this work highlight that people having familiarity with buying food online, that have a higher educational level and consider food online channels easy to use, appear more satisfied for the food online shopping experience. These findings can be crucial for the future green global challenges as online shopping may help to reach competitive advantages for company sustainability.

Publication Type

Journal article.

<307>

Accession Number

20203570843

Author

Bieh, K. L.; Anas Khan; Yezli, S.; Ahmed El-ganainy; Sari Asiri; Badriah Alotaibi; Sujoud Ghallab; Amgad Elkholy; Abubakar, A.; Hani Jokhdar

Title

Implementing the health early warning system based on syndromic and event-based surveillance at the 2019 Hajj.

Source

Eastern Mediterranean Health Journal; 2020. 26(12):1570-1575. 18 ref.

Publisher

World Health Organization, Regional Office for the Eastern Mediterranean

Location of Publisher

Cairo

Country of Publication

Egypt

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305

Abstract

Background: During the 2019 Hajj, the Ministry of Health in Saudi Arabia implemented for the first time a health early warning system for rapid detection and response to health threats. Aims: This study aimed to describe the early warning findings at the Hajj to highlight the pattern of health risks and the potential benefits of the disease surveillance system. Methods: Using syndromic surveillance and event-based surveillance data, the health early warning system generated automated alarms for public health events, triggered alerts for rapid epidemiological investigations and facilitated the monitoring of health events. Results: During the deployment period (4 July-31 August 2019), a total of 121 automated alarms were generated, of which 2 events (heat-related illnesses and injuries/trauma) were confirmed by the response teams. Conclusion: The surveillance system potentially improved the timeliness and situational awareness for health events, including non-infectious threats. In the context of the current COVID-19 pandemic, a health early warning system could enhance case detection and facilitate monitoring of the disease geographical spread and the effectiveness of control measures.

Publication Type

Journal article.

<308>

Accession Number

20203570828

Author

Zafar Fatmi; Shafaq Mahmood; Waqas Hameed; Ibtisam Qazi; Muhammad Siddiqui; Anny Dhanwani; Sameen Siddiqi

Title

Knowledge, attitudes and practices towards COVID-19 among Pakistani residents: information access and low literacy vulnerabilities.

Source

Eastern Mediterranean Health Journal; 2020. 26(12):1446-1455. 27 ref.

Publisher

World Health Organization, Regional Office for the Eastern Mediterranean

Location of Publisher

Cairo

Country of Publication

Egypt

Abstract

Background: Coronavirus disease (COVID-19) has accentuated the need for speedy access to information. Digital divide and socio-demographic disparity create an information hiatus and therefore unhealthy practices with regard to dealing with COVID-19, particularly in low- and middle-income countries. Aims: We assessed knowledge, attitudes, practices and their determinants regarding COVID-19 in Pakistan during March-April 2020. Methods: 905 adults 18 years (males and females) participated: 403 from a web-based survey; 365 from an urban survey; and 137 from a rural survey. Frequency of adequate knowledge, attitudes and practices for the three populations was determined based on available global guidelines. Multivariable logistic regression analysis determined factors of adequacy of knowledge, attitudes, practices, and association of knowledge with attitudes and practices. Results: Mean age of the participants was 33.5 (+ SD 11.1) years, 51% were females. More females and young adults (18-30 years) participated in the web-based survey. The urban survey and web-based survey participants had significantly higher adequate knowledge (2-7 times) and practices (4-5 times) towards COVID-19. Adequate knowledge had a significant influence on healthy attitudes and practices for COVID-19, after adjustment for covariates. Overall, two-thirds of the population had high levels of fear about COVID-19, which was highest among the rural survey population. Conclusion: Substantial gaps exist in adequate knowledge, attitudes and practices, particularly among rural populations, and underscores the variation in access to information according to level of education and access to the internet. Thus, a comprehensive, contextually congruent awareness raising strategy is urgently needed to confront COVID-19 among these populations.

Publication Type

Journal article.

<309>

Accession Number

20203570720

Author

Chen ZhongFei; Hao XinYue; Zhang XiaoYu; Chen FangLin

Title

Have traffic restrictions improved air quality? A shock from COVID-19.

Source

Journal of Cleaner Production; 2021. 279. 34 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

   With the outbreak of COVID-19 (Corona Virus Disease, 2019), China adopted traffic restrictions to reduce the spread of COVID-19. Using daily data before and after the outbreak of COVID-19, an exogenous shock, this paper analyzes the effects of private vehicle restriction policies on air pollution. We find that the private vehicle restriction policies reduce the degree of air pollution to a certain extent. However, their effect varies with other policies implemented in the same period and the economic development of the city itself. Through the analysis of different categories of restrictions, we find that restriction policy for local fuel vehicles and the restriction policy based on the last digit of license plate numbers have the best effect in reducing air pollution. Under the background of COVID-19 epidemic and the implementation of private vehicle restriction policies and other traffic control policies during this period, we have also obtained other enlightenment on air pollution control.

Publication Type

   Journal article.

<310>

Accession Number

   20203570670

Author

   Ng BoonHau; Nik Nuratiqah, N. A.; Mohamed Faisal, A. H.; Soo ChunIan; Low HsuehJing; Najma Kori; Petrick Periyasamy; Norlaila Mustafa; Yu-Lin Ban [Yu-Lin, B. A.]

Title

   A descriptive study of the psychological experience of health care workers in close contact with a person with COVID-19.

Source

   Medical Journal of Malaysia; 2020. 75(5):485-489. 12 ref.

Publisher

   Malaysian Medical Association

Location of Publisher

   Kuala Lumpur

Country of Publication

   Malaysia

Abstract

   Background: COVID-19 has the potential to affect the mental health of health care workers (HCWs). It is known that HCWs who serve as front-liners during the COVID-19 pandemic experience stress and have the

fear of contracting the infection. Little is known of how being a positive contact affects HCWs. Background: We examined the experience of HCWs who were quarantined following a close unprotected contact with a COVID-19 positive colleague and explore the psychological impact especially as the timing of the quarantine coincided with the Eid (annual Muslim festival) celebration in Malaysia. Methods: This was a cross-sectional on-line questionnaire study, involving HCWs exposed to a COVID-19 positive colleague in Universiti Kebangsaan Malaysia Medical Centre, a teaching hospital. Data on demographics, levels of depression, anxiety and stress using a validated depression, anxiety, and stress scale (DASS-21) questionnaire, aspects of quarantine, wearing of masks, hand hygiene practice and swab experience were collected. Results: Twenty-two HCWs participated. Eighteen (81.8%) were between 30-39 years and 17 (77.3%) were women. Majority 19 (86.3%) were Malays. There were twelve (54.5%) medical officers, 5 (22.7%) specialists and 5(22.7%) allied health staff. Eighteen out of 22 (81.8%) felt they were able to do home quarantine adequately. All tested negative with a mean (Standard Deviation) hour of contact of 2.56+or-2.38 hours. Eighteen reported their biggest concern was infecting their families. Conclusion: HCWs undergoing contact swabbing and quarantine are vulnerable to depression, anxiety and stress. The ability of the HCW to adequately home quarantine should not be taken for granted. Psychological support should be offered to HCWs who are positive contacts.

Publication Type

Journal article.

<311>

Accession Number

20203570525

Author

Francescangeli, F.; Angelis, M. L. de; Zeuner, A.

Title

COVID-19: a potential driver of immune-mediated breast cancer recurrence?

Source

Breast Cancer Research; 2020. 22(117). 10 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Severe coronavirus disease 2019 (COVID-19) causes a hyperactivation of immune cells, resulting in lung inflammation. Recent studies showed that COVID-19 induces the production of factors previously implicated in the reawakening of dormant breast cancer cells such as neutrophil extracellular traps (NETs). The presence of NETs and of a pro-inflammatory microenvironment may therefore promote breast cancer reactivation, increasing the risk of pulmonary metastasis. Further studies will be required to confirm the link between COVID-19 and cancer recurrence. However, an increased awareness on the potential risks for breast cancer patients with COVID-19 may lead to improved treatment strategies to prevent metastatic relapse.

Publication Type

 Journal article.

<312>

Accession Number

 20203570509

Author

 Elkahloun, A. G.; Saavedra, J. M.

Title

 Candesartan could ameliorate the COVID-19 cytokine storm.

Source

 Biomedicine & Pharmacotherapy; 2020. 131. 192 ref.

Publisher

 Elsevier Masson SAS

Location of Publisher

 Issy-les-Moulineaux

Country of Publication

 France

Abstract

 Background: Angiotensin receptor blockers (ARBs) reducing inflammation and protecting lung and brain function, could be of therapeutic efficacy in COVID-19 patients. Methods: Using GSEA, we compared our previous transcriptome analysis of neurons injured by glutamate and treated with the ARB Candesartan (GSE67036) with transcriptional signatures from SARS-CoV-2 infected primary human bronchial epithelial cells (NHBE) and lung postmortem (GSE147507), PBMC and BALF samples (CRA002390) from COVID-19 patients. Results: Hundreds of genes upregulated in SARS-CoV-2/COVID-19 transcriptomes were similarly upregulated by glutamate and normalized by Candesartan. Gene Ontology analysis revealed expression

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profiles with greatest significance and enrichment, including proinflammatory cytokine and chemokine activity, the NF-kappa B complex, alterations in innate and adaptive immunity, with many genes participating in the COVID-19 cytokine storm. Conclusions: There are similar injury mechanisms in SARS-CoV-2 infection and neuronal injury, equally reduced by ARB treatment. This supports the hypothesis of a therapeutic role for ARBs, ameliorating the COVID-19 cytokine storm.

Publication Type

Journal article.

<313>

Accession Number

20203570504

Author

Uzunova, K.; Filipova, E.; Pavlova, V.; Vekov, T.

Title

Insights into antiviral mechanisms of remdesivir, lopinavir/ritonavir and chloroquine/hydroxychloroquine affecting the new SARS-CoV-2.

Source

Biomedicine & Pharmacotherapy; 2020. 131. 110 ref.

Publisher

Elsevier Masson SAS

Location of Publisher

Issy-les-Moulineaux

Country of Publication

France

Abstract

Coronavirus disease 2019 (COVID-19) is a kind of viral pneumonia with an unusual outbreak in Wuhan, China, which is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). There is currently no licensed antiviral treatment available to prevent human CoV infection. The widespread clinical use and existing knowledge on antiviral mechanisms of remdesivir, lopinavir/ritonavir and chloroquine/hydroxychloroquine in the treatment of previous epidemic diseases, namely, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), may be helpful in the combat with novel SARS-CoV-2 infection. Recent clinical evidence didn't confirm the beneficial role of lopinavir/ritonavir and chloroquine/hydroxychloroquine for COVID-19 patients and their use was reassessed. We provide an overview of the current evidence into the mechanisms of action of these

available drugs which are repurposed for treatment of the new virus. Available data identifies remdesivir as an adenosine analogue that can target the RNA-dependent RNA polymerase and block viral RNA synthesis. It has been a promising antiviral drug against a wide array of RNA viruses. 3CLpro is a major CoV protease that cleaves the large replicase polyproteins during viral replication and can be targeted by the protease inhibitor lopinavir/ritonavir but the clinical effects are controversial. Chloroquine/Hydroxychloroquine could impair the replication of SARSCoV-2 by multiple mechanisms and their immunomodulatory properties could ameliorate clinical manifestations that are mediated by immune reactions of the host although its beneficial effects are under question and need to be proven at the clinical level. Existing in vitro and in vivo evidence delineate the molecular mechanisms of these drugs in CoV-infected cells. Numerous studies demonstrated the ability of remdesivir to inhibit SARS-CoV-2 replication but future research would be needed to understand the exact mode of action of lopinavir/ritonavir and chloroquine/hydroxychloroquine in SARS-CoV-2 infected cells and to use this knowledge in the treatment of the current COVID-19.

Publication Type

Journal article.

<314>

Accession Number

20203570498

Author

Berretta, A. A.; Silveira, M. A. D.; Capcha, J. M. C.; Jong, D. de

Title

Propolis and its potential against SARS-CoV-2 infection mechanisms and COVID-19 disease: running title: propolis against SARS-CoV-2 infection and COVID-19. (Special issue on Brazilian papers.)

Source

Biomedicine & Pharmacotherapy; 2020. 131. 256 ref.

Publisher

Elsevier Masson SAS

Location of Publisher

Issy-les-Moulineaux

Country of Publication

France

Abstract

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Propolis, a resinous material produced by honey bees from plant exudates, has long been used in traditional herbal medicine and is widely consumed as a health aid and immune system booster. The COVID-19 pandemic has renewed interest in propolis products worldwide; fortunately, various aspects of the SARS-CoV-2 infection mechanism are potential targets for propolis compounds. SARS-CoV-2 entry into host cells is characterized by viral spike protein interaction with cellular angiotensin-converting enzyme 2 (ACE2) and serine protease TMPRSS2. This mechanism involves PAK1 overexpression, which is a kinase that mediates coronavirus-induced lung inflammation, fibrosis, and immune system suppression. Propolis components have inhibitory effects on the ACE2, TMPRSS2 and PAK1 signaling pathways; in addition, antiviral activity has been proven in vitro and in vivo. In pre-clinical studies, propolis promoted immunoregulation of pro-inflammatory cytokines, including reduction in IL-6, IL-1 beta and TNF-a. This immunoregulation involves monocytes and macrophages, as well as Jak2/STAT3, NF-kB, and inflammasome pathways, reducing the risk of cytokine storm syndrome, a major mortality factor in advanced COVID-19 disease. Propolis has also shown promise as an aid in the treatment of various of the comorbidities that are particularly dangerous in COVID-19 patients, including respiratory diseases, hypertension, diabetes, and cancer. Standardized propolis products with consistent bioactive properties are now available. Given the current emergency caused by the COVID-19 pandemic and limited therapeutic options, propolis is presented as a promising and relevant therapeutic option that is safe, easy to administrate orally and is readily available as a natural supplement and functional food.

Publication Type

Journal article.

<315>

Accession Number

20203570436

Author

Khalid Bajunaid; Ashwag Alqurashi; Abdullah Alatar; Mohammad Alkutbi; Alzahrani, A. H.; Sabbagh, A. J.; Abdullah Alobaid; Abdulwahed Barnawi; Ahmed Abdulrahman Alferayan; Alkhani, A. M.; Ali Bin Salamah; Bassem Yousef Sheikh; Alotaibi, F. E.; Faisal Alabbas; Faisal Farrash; Al-Jehani, H. M.; Husam Alhabib; Ibrahim Alnaami; Ikhlass Altweijri; Isam Khoja; Mahmoud Taha; Moajeb Alzahrani; Bafaquh, M. S.; Mohammed Binmahfoodh; Mubarak Ali Algahtany; Sabah Al-Rashed; Syed Muhammad Raza; Sherif Elwatidy; Alomar, S. A.; Wisam Al-Issawi; Khormi, Y. H.; Ahmad Ammar; Amro Al-Habib; Baeesa, S. S.; Abdulrazag Ajlan

Title

Neurosurgical procedures and safety during the COVID-19 pandemic: a case-control multicenter study.

Source

World Neurosurgery; 2020. 143:e179-e187. 43 ref.

Publisher

Elsevier

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Location of Publisher

New York

Country of Publication

USA

Abstract

Objective: Quantitative documentation of the effects of outbreaks, including the coronavirus disease 2019 (COVID-19) pandemic, is limited in neurosurgery. Our study aimed to evaluate the effects of the COVID-19 pandemic on neurosurgical practice and to determine whether surgical procedures are associated with increased morbidity and mortality. Methods: A multicenter case-control study was conducted, involving patients who underwent neurosurgical intervention in the Kingdom of Saudi Arabia during 2 periods: pre-COVID-19 and during the COVID-19 pandemic. The surgical intervention data evaluated included diagnostic category, case priority, complications, length of hospital stay, and 30-day mortality. Results: A total of 850 procedures were included, 36% during COVID-19. The median number of procedures per day was significantly lower during the COVID-19 period (5.5 cases) than during the pre-COVID-19 period (12 cases; $P < 0.0001$). Complications, length of hospital stay, and 30-day mortality did not differ during the pandemic. In a multivariate analysis comparing both periods, case priority levels 1 (immediate) (odds ratio [OR], 1.82; 95% confidence interval [CI], 1.24-2.67), 1 (1-24 h) (OR, 1.63; 95% CI, 1.10-2.41), and 4 (OR, 0.28; 95% CI, 0.19-0.42) showed significant differences. Conclusions: During the early phase of the COVID-19 pandemic, the overall number of neurosurgical procedures declined, but the load of emergency procedures remained the same, thus highlighting the need to allocate sufficient resources for emergencies. More importantly, performing neurosurgical procedures during the pandemic in regions with limited effects of the outbreak on the health care system was safe. Our findings may aid in developing guidelines for acute and long-term care during pandemics in surgical subspecialties.

Publication Type

Journal article.

<316>

Accession Number

20203570434

Author

Buggisch, J. R.; Gohler, D.; Pape, A. le; Roger, S.; Ouaissi, M.; Stintz, M.; Rudolph, A.; Giger-Pabst, U.

Title

Experimental model to test electrostatic precipitation technology in the COVID-19 era: a pilot study.

Source

Journal of the American College of Surgeons; 2020. 231(6):704-712. 33 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Background: In the COVID-19 crisis, laparoscopic surgery is in focus as a relevant source of bioaerosol release. The efficacy of electrostatic aerosol precipitation (EAP) and continuous aerosol evacuation (CAE) to eliminate bioaerosols during laparoscopic surgery was verified. Study design: Ex-vivo laparoscopic cholecystectomies (LCs) were simulated +or- EAP or CAE in Pelvitrainer equipped with swine gallbladders. Release of bioaerosols was initiated by performing high-frequency electrosurgery with a monopolar electro hook (MP-HOOK) force at 40 watts (MP-HOOK40) and 60 watts (MP-HOOK60), as well as by ultrasonic cutting (USC). Particle number concentrations (PNC) of arising aerosols were analyzed with a condensation particle counter (CPC). Aerosol samples were taken within the Pelvitrainer close to the source, outside the Pelvitrainer at the working trocar, and in the breathing zone of the surgeon. Results: Within the Pelvitrainer, MP-HOOK40 (6.4×10^5 cm-3) and MP-HOOK60 (7.3×10^5 cm-3) showed significantly higher median PNCs compared to USC (4.4×10^5 cm-3) ($p = 0.001$). EAP led to a significant decrease of the median PNCs in all 3 groups. A high linear correlation with Pearson correlation coefficients of 0.852, 0.825, and 0.759 were observed by comparing MP-HOOK40 (+or- EAP), MP-HOOK60 (+or- EAP), and USC (+or- EAP), respectively. During ex-vivo LC and CAE, significant bioaerosol contaminations of the operating room occurred. Ex-vivo LC with EAP led to a considerable reduction of the bioaerosol concentration. Conclusions: EAP was found to be efficient for intraoperative bioaerosol elimination and reducing the risk of bioaerosol exposure for surgical staff.

Publication Type

Journal article.

<317>

Accession Number

20203570359

Author

Loo SuLing; Wark, P. A. B.; Esneau, C.; Nichol, K. S.; Hsu, A. C. Y.; Bartlett, N. W.

Title

Human coronaviruses 229E and OC43 replicate and induce distinct antiviral responses in differentiated primary human bronchial epithelial cells.

Source

American Journal of Physiology - Lung Cellular and Molecular Physiology; 2020. 319(6):L926-L931. 34 ref.

Publisher

  American Physiological Society

Location of Publisher

  Bethesda

Country of Publication

  USA

Abstract

  The recurrent emergence of novel, pathogenic coronaviruses (CoVs) severe acute respiratory syndrome coronavirus 1 (SARS-CoV-1; 2002), Middle East respiratory syndrome (MERS)-CoV (2012), and most recently SARS-CoV-2 (2019) has highlighted the need for physiologically informative airway epithelial cell infection models for studying immunity to CoVs and development of antiviral therapies. To address this, we developed an in vitro infection model for two human coronaviruses; alphacoronavirus 229E-CoV (229E) and betacoronavirus OC43-CoV (OC43) in differentiated primary human bronchial epithelial cells (pBECs). Primary BECs from healthy subjects were grown at air-liquid interface (ALI) and infected with 229E or OC43, and replication kinetics and timecourse expression of innate immune mediators were assessed. OC43 and 229E-CoVs replicated in differentiated pBECs but displayed distinct replication kinetics: 229E replicated rapidly with viral load peaking at 24 h postinfection, while OC43 replication was slower peaking at 96 h after infection. This was associated with diverse antiviral response profiles defined by increased expression of type I/III interferons and interferon-stimulated genes (ISGs) by 229E compared with no innate immune activation with OC43 infection. Understanding the host-virus interaction for previously established coronaviruses will give insight into pathogenic mechanisms underpinning SARS-CoV-2-induced respiratory disease and other future coronaviruses that may arise from zoonotic sources.

Publication Type

  Journal article.

<318>

Accession Number

  20203570346

Author

  Popofsky, S.; Noor, A.; Leavens-Maurer, J.; Quintos-Alagheband, M. L.; Mock, A.; Vinci, A.; Magri, E.; Akerman, M.; Noyola, E.; Rigaud, M.; Pak, B.; Lighter, J.; Ratner, A. J.; Hanna, N.; Krilov, L.

Title

  Impact of maternal severe acute respiratory syndrome coronavirus 2 detection on breastfeeding due to infant separation at birth.

Source

Abstract

Objective: To assess the impact of separation of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) polymerase chain reaction (PCR)-positive mother-newborn dyads on breastfeeding outcomes. Study design: This observational longitudinal cohort study of mothers with SARS-CoV-2 PCR-and their infants at 3 NYU Langone Health hospitals was conducted between March 25, 2020, and May 30, 2020. Mothers were surveyed by telephone regarding predelivery feeding plans, in-hospital feeding, and home feeding of their neonates. Any change prompted an additional question to determine whether this change was due to coronavirus disease-2019 (COVID-19). Results: Of the 160 mother-newborn dyads, 103 mothers were reached by telephone, and 85 consented to participate. There was no significant difference in the predelivery feeding plan between the separated and unseparated dyads (P = .268). Higher rates of breastfeeding were observed in the unseparated dyads compared with the separated dyads both in the hospital (P < .001) and at home (P = .012). Only 2 mothers in each group reported expressed breast milk as the hospital feeding source (5.6% of unseparated vs 4.1% of separated). COVID-19 was more commonly cited as the reason for change in the separated group (49.0% vs 16.7%; P < .001). When the dyads were further stratified by symptom status into 4 groups-asymptomatic separated, asymptomatic unseparated, symptomatic separated, and symptomatic unseparated-the results remained unchanged. Conclusions: In the setting of COVID-19, separation of mother-newborn dyads impacts breastfeeding outcomes, with lower rates of breastfeeding both during hospitalization and at home following discharge compared with unseparated mothers and infants. No evidence of vertical transmission was observed; 1 case of postnatal transmission occurred from an unmasked symptomatic mother who held her infant at birth.

Publication Type

Journal article.

<319>

Accession Number

20203570345

Author

Derespina, K. R.; Kaushik, S.; Plichta, A.; Conway, E. E., Jr.; Bercow, A.; Choi Jaeun; Eisenberg, R.; Gillen, J.; Sen, A. I.; Hennigan, C. M.; Zerihun, L. M.; Doymaz, S.; Keenaghan, M. A.; Jarrin, S.; Oulds, F.; Gupta, M.; Pierre, L.; Grageda, M.; Ushay, H. M.; Nadkarni, V. M.; Agus, M. S. D.; Medar, S. S.

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Title

  Clinical manifestations and outcomes of critically ill children and adolescents with coronavirus disease 2019 in New York City.

Source

  Journal of Pediatrics; 2020. 226:55-63.e2. 28 ref.

Publisher

  Elsevier

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  Objectives: To describe the clinical manifestations and outcomes of critically ill children with coronavirus disease-19 (COVID-19) in New York City. Study design: Retrospective observational study of children 1 month to 21 years admitted March 14 to May 2, 2020, to 9 New York City pediatric intensive care units (PICUs) with severe acute respiratory syndrome coronavirus 2 infection. Results: Of 70 children admitted to PICUs, median age was 15 (IQR 9, 19) years; 61.4% male; 38.6% Hispanic; 32.9% black; and 74.3% with comorbidities. Fever (72.9%) and cough (71.4%) were the common presenting symptoms. Twelve patients (17%) met severe sepsis criteria; 14 (20%) required vasopressor support; 21 (30%) developed acute respiratory distress syndrome (ARDS); 9 (12.9%) met acute kidney injury criteria; 1 (1.4%) required renal-replacement therapy, and 2 (2.8%) had cardiac arrest. For treatment, 27 (38.6%) patients received hydroxychloroquine; 13 (18.6%) remdesivir; 23 (32.9%) corticosteroids; 3 (4.3%) tocilizumab; and 1 (1.4%) anakinra; no patient was given immunoglobulin or convalescent plasma. Forty-nine (70%) patients required respiratory support: 14 (20.0%) noninvasive mechanical ventilation, 20 (28.6%) invasive mechanical ventilation (IMV), 7 (10%) prone position, 2 (2.8%) inhaled nitric oxide, and 1 (1.4%) extracorporeal membrane oxygenation. Nine (45%) of the 20 patients requiring IMV were extubated by day 14 with median IMV duration of 218 (IQR 79, 310.4) hours. Presence of ARDS was significantly associated with duration of PICU and hospital stay, and lower probability of PICU and hospital discharge at hospital day 14 (P < .05 for all). Conclusions: Critically ill children with COVID-19 predominantly are adolescents, have comorbidities, and require some form of respiratory support. The presence of ARDS is significantly associated with prolonged PICU and hospital stay.

Publication Type

  Journal article.

<320>

Accession Number

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318

20203570337

Author

Meng YuTong; Leng KunPeng; Shan Lei; Guo Meng; Zhou JunLin; Tian QingXian; Hai Yong

Title

A clinical pathway for pre-operative screening of COVID-19 and its influence on clinical outcome in patients with traumatic fractures. (Special Issue: COVID-19 and orthopaedics.)

Source

International Orthopaedics; 2020. 44(8):1549-1555. 24 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

Purpose: Coronavirus disease 2019 (COVID-19) has become a worldwide pandemic. The toughest issue traumatic orthopaedic surgeons are faced with is how to maintain a balance between adequate COVID-19 screening and timely surgery. In this study, we described our experience with pre-operative COVID-19 screening in patients with traumatic fractures. Furthermore, we analysed the clinical results of fracture patients undergoing confined or emergency surgery during the COVID-19 outbreak. Methods: This was a case series study. Patients with traumatic fractures who were admitted to our hospital for surgery were enrolled in this study during the COVID-19 outbreak from March to April 2020. All patients were enrolled and managed using the standardized clinical pathway we designed for preoperative COVID-19 screening. Clinical, laboratory and outcome data were analysed. Results: The average surgery waiting time from injury to surgery was 8.7 +or- 3.4 days. The average waiting time from admission to surgery was 5.3 +or- 2.8 days. These average waiting times were increased by 4.1 days and 2.0 days, respectively, compared with 2019 data. Cardiovascular complications, venous thromboembolism and pneumonia occurred in one, two and one patient, respectively. Three and two patients developed pre-operative and postoperative fevers, respectively. Conclusions: We introduced a novel clinical pathway for pre-operatively screening of COVID-19 in traumatic orthopaedic patients. The delay in surgery caused by COVID-19 screening was minimized to a point at which reasonable and acceptable clinical outcomes were achieved. Doctors should pay more attention to perioperative complications, such as cardiovascular complications, venous thromboembolism, pneumonia and fever.

Publication Type

Journal article.

<321>

Accession Number

20203570330

Author

Pichard, R.; Kopel, L.; Lejeune, Q.; Masmoudi, R.; Masmejean, E. H.

Title

Impact of the COronaVIrus Disease 2019 lockdown on hand and upper limb emergencies: experience of a referred university trauma hand centre in Paris, France. (Special Issue: COVID-19 and orthopaedics.)

Source

International Orthopaedics; 2020. 44(8):1497-1501. 31 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

Purpose: The lockdown imposed in France to cope with the COronaVIrus Disease 2019 (COVID-19) outbreak has led to major changes in the lifestyle of French citizens. The aim of our study was to study its impact on activity related to emergencies in hand and upper limb trauma in comparison to the same reference period in 2019. Material and methods: All consecutive patients consulting for upper limb injury requiring urgent care at Georges-Pompidou European Hospital (HEGP), France, during the lockdown period (case group) and the equivalent period in 2019 (control group) were included. In each group, the type of accident, the anatomical location of the injury, and the treatment were reported and compared. Results: Two hundred seventy-five patients were included in the case group in comparison to 784 patients in the control group. We observed a two-third decrease in the rate of upper limb emergencies (- 64.9%) in particular a drastic drop in the rate of road, work, and leisure accidents (10.4% vs 14.3%, p = 0.1151; 10.0% vs 22.6%, p < 0.0001; 13.1% vs 30.8%, p < 0.0001, respectively), and a clear increase in domestic accidents (66.5% vs 32.3%, p < 0.0001). The aetiologies were more dominated by lacerations of soft tissues (48.4%, vs 38.3%, p = 0.0034) and infections (8.7% vs 5.1%, p = 0.0299) with an increase in the indications for surgical management (51.2% vs 36.9%, p < 0.0001). Conversely, we observed fewer consultations for joint injuries (20.7% vs 30.7%, p = 0.0015) and fractures (22.2% vs 25.9%, p = 0.2210). Conclusion: The lockdown imposed in France has changes the etiologies and the management of hand and upper limb emergencies.

Publication Type

Journal article.

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320

<322>

Accession Number

  20203570329

Author

  Wu Wei; Xiong Wei; Kang HongLei; Guo Qian; Fang Zhong; Li Feng

Title

  Challenges and response in the medical management of the orthopaedic department during the coronavirus disease 2019 pandemic: strategies in Wuhan, China. (Special Issue: COVID-19 and orthopaedics.)

Source

  International Orthopaedics; 2020. 44(8):1489-1495. 21 ref.

Publisher

  Springer-Verlag GmbH

Location of Publisher

  Berlin

Country of Publication

  Germany

Abstract

  Purpose: Currently, COVID-19 has rapidly spread around the globe, there are already many nosocomial infections in medical staff. The purpose of this study is to provide some medical management experience from the orthopaedics department of Tongji Hospital in Wuhan, China, to provide reference for orthopaedists. Methods: This study is a summary of the orthopaedic medical management of Tongji Hospital. It systematically summarized the Chinese experience including orthopaedic outpatient and emergency department management, and orthopaedic surgery and preventive management during the pandemic. Results: We described some challenges in the orthopaedic department during the epidemic and formulated a set of medical management procedures to find an balance between effective treatment and infection prevention. Conclusion: These experiences and strategies could help orthopedists to work safely and effectively, and prevent nosocomial infections during the global pandemic of COVID-19.

Publication Type

  Journal article.

<323>

Accession Number

20203570326

Author

Gazendam, A.; Nucci, N.; Ekhtiari, S.; Gohal, C.; Zhu Meng; Payne, A.; Bhandari, M.

Title

Trials and tribulations: so many potential treatments, so few answers. (Special Issue: COVID-19 and orthopaedics.)

Source

International Orthopaedics; 2020. 44(8):1467-1471. 22 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

Purpose: The purpose of this review is to quantify the landscape of current clinical trials ongoing for therapies in the treatment of COVID-19. A secondary purpose is to examine the relationship between public and scientific interests in potential therapies for COVID-19. Methods: A systematic search of clinicaltrials.gov was undertaken on April 22, 2020, to identify all currently registered clinical trials investigating potential therapies for patients with COVID-19. Public interest in the various therapies was quantified utilizing Google Trends. Public interest in hydroxychloroquine and chloroquine was plotted against the cumulative number of active clinical trials evaluating antimalarials as potential COVID-19 therapies over time. Results: There were 341 interventional studies and 208 different therapies actively registered on clinicaltrials.gov whose primary aim is the treatment of COVID-19. The median sample size was 120 patients (range 4-6000) with 154 (45%) trials reporting a planned sample size of 100 patients or less. There was a strong positive correlation ($r = 0.76$, $p = 0.01$) between the number of registered clinical trials and the public interest in the top ten proposed therapies. Following the spike in public interest, the average number of new trials increased tenfold with respect to antimalarial therapies. Conclusions: The relatively small sample sizes and the number of independent trials investigating similar therapies are concerning. Resources may not be being allocated based on scientific merit and may be driven by public consciousness and speculation. Moving forward, a concerted effort focused on implementing large, well-coordinated and carefully designed multi-armed clinical trials will help to ensure that the most promising therapeutic options are rigorously studied and clinically meaningful results produced.

Publication Type

Journal article.

<324>

Accession Number

20203570209

Author

Parker, E. P. K.; Shrotri, M.; Kampmann, B.

Title

Keeping track of the SARS-CoV-2 vaccine pipeline.

Source

Nature Reviews Immunology; 2020. 20(11):650-650.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Publication Type

Journal article.

<325>

Accession Number

20203570177

Author

Sunali Padhi; Subham Suvankar; Panda, V. K.; Abhijit Pati; Panda, A. K.

Title

Lower levels of vitamin D are associated with SARS-CoV-2 infection and mortality in the Indian population: an observational study.

Source

International Immunopharmacology; 2020. 88. 138 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Background: The role of vitamin D in the susceptibility and severity of various viral diseases has been well documented. Recently, some reports highlighted the possible importance of vitamin D in severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Although India receives adequate sunlight throughout the year, the majority of Indians are deficient in vitamin D levels. In the present study, we hypothesized that vitamin D deficiency would be associated with the SARS-CoV-2 infection rate and mortality in the Indian population. Materials and methods: SARS-CoV-2 infection and mortality data were obtained from the Government of India's official website (accessed on 16th August 2020). Various literature databases like PubMed and Google Scholar were searched to find the mean of 25-hydroxyvitamin D [25(OH)D] levels in different states and union territories of India, Pearson correlation was carried out to investigate the possible link between mean 25(OH)D levels and SARS-CoV-2 infection and mortality per million of the population. Results: An inverse correlation was observed between the mean level of 25(OH)D and SARS-CoV-2 infection rate (r = -0.43, p = 0.02) and mortality rate (r = -0.42, p = 0.02). Conclusions: The present observational study revealed an association of vitamin D with SARS-CoV-2 infection and related mortality. Further studies are required to validate our observations.

Publication Type

Journal article.

<326>

Accession Number

20203570160

Author

Kumar, V.

Title

Understanding the complexities of SARS-cov2 infection and its immunology: a road to immune-based therapeutics.

Source

International Immunopharmacology; 2020. 88. 406 ref.

Publisher

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Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Emerging infectious diseases always pose a threat to humans along with plant and animal life. SARS-CoV2 is the recently emerged viral infection that originated from Wuhan city of the Republic of China in December 2019. Now, it has become a pandemic. Currently, SARS-CoV2 has infected more than 27.74 million people worldwide, and taken 901,928 human lives. It was named first 'WH 1 Human CoV' and later changed to 2019 novel CoV (2019-nCoV). Scientists have established it as a zoonotic viral disease emerged from Chinese horseshoe bats, which do not develop a severe infection. For example, Rhinolophus Chinese horseshoe bats harboring severe acute respiratory syndrome-related coronavirus (SARSr-CoV) or SARSr-Rh-BatCoV appear healthy and clear the virus within 2-4 months period. The article introduces first the concept of EIDs and some past EIDs, which have affected human life. Next section discusses mysteries regarding SARS-CoV2 origin, its evolution, and human transfer. Third section describes COVID-19 clinical symptoms and factors affecting susceptibility or resistance. The fourth section introduces the SARS-CoV2 entry in the host cell, its replication, and the establishment of productive infection. Section five describes the host's immune response associated with asymptomatic, symptomatic, mild to moderate, and severe COVID-19. The subsequent seventh and eighth sections mention the immune status in COVID-19 convalescent patients and re-emergence of COVID-19 in them. Thereafter, the eighth section describes viral strategies to hijack the host antiviral immune response and generate the "cytokine storm". The ninth section describes about transgenic humane ACE2 (hACE2) receptor expressing mice to study immunity, drugs, and vaccines. The article ends with the development of different immunomodulatory and immunotherapeutics strategies, including vaccines waiting for their approval in humans as prophylaxis or treatment measures.

Publication Type

Journal article.

<327>

Accession Number

20203570056

Author

Low YiFen; Goh XinLei; Fok, D.; Amin, Z.; Mei YvonnePeng

Title

Breastfeeding in COVID-19: a pragmatic approach.

Source

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American Journal of Perinatology; 2020. 37(13):1377-1384. 45 ref.

Publisher

Thieme Medical Publishers, Inc.

Location of Publisher

New York

Country of Publication

USA

Abstract

The novel coronavirus disease 2019 (COVID-19) pandemic has resulted in changes to perinatal and neonatal care, concentrating on minimizing risks of transmission to the newborn and health care staff while ensuring medical care is not compromised for both mother and infant. Current recommendations on infant care and feeding when mother has COVID-19 ranges from mother-infant separation and avoidance of human milk feeding, to initiation of early skin-to-skin contact and direct breastfeeding. Health care providers fearing risks of severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) maternal-infant transmission may veer toward restricted breastfeeding practices. We reviewed guidelines and published literature and propose three options for infant feeding depending on various scenarios. Option A involves direct breastfeeding with the infant being cared for by the mother or caregiver. In option B, the infant is cared for by another caregiver and receives mother's expressed milk. In the third option, the infant is not breastfed directly and does not receive mother's expressed milk. We recommend joint decision making by parents and the health care team. This decision is also flexible as situation changes. We also provide a framework for counseling mothers on these options using a visual aid and a corresponding structured training program for health care providers. Future research questions are also proposed. We conclude that evidence and knowledge about COVID-19 and breastfeeding are still evolving. Our options can provide a quick and flexible reference guide that can be adapted to local needs.

Publication Type

Journal article.

<328>

Accession Number

20203569764

Author

Purushotham Lingaiah; Mukesh Tripathi; Rakesh Kakkar

Title

E-consultation in COVID-19 scare: comparison of patient response toward mobile app vs call-based registration.

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Source

Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):163-168. 8 ref.

Publisher

Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

Chandigarh

Country of Publication

India

Abstract

Background: Lockdown and quarantine strategies due to COVID-19 scare have made routine health facility inaccessible to patients across the country. To combat this issue, tele-consultation was identified as an interim solution where patients could avail the benefit of routine health check-up. Materials and methods: We at AIIMS, Mangalagiri, started two e-consultation designs to tide over the crisis of lockdown and reach out to our patients. These were call-based (group I) and app-based (group II). The patient response to these two modalities was compared over a period of 6 weeks. Results: Total registration of 1836 patients was received (1598 in group I and 238 in group II). There was a statistically significant difference between the two groups in response to ease of the registration process and consultation. Interpretation and conclusion: In our experience, e-consultation through call-based registration fared better than app-based registration. The user-friendly nature of call-based registration design has made it a popular approach among our patients. We strongly recommend the use of e-consultation services by the patients in the current scenario of COVID-19 scare, thus helping the nation fight the dreadful infection by preventing its spread.

Publication Type

Journal article.

<329>

Accession Number

20203569763

Author

Parminder Singh Otaal; Akash Batta; Kunaal Makkar; Rajesh Vijayvergiya

Title

Cardiovascular conundrums of COVID-19 pandemic.

Source

Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):160-162. 20 ref.

Publisher

  Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

  Chandigarh

Country of Publication

  India

Abstract

  The current COVID-19 pandemic is an enormous and unique challenge to the mankind. Its unprecedented global health impact has exposed the vulnerability of existing healthcare systems and infrastructure of all the countries, rich or poor. Devastating effects of COVID-19 have challenged all aspects of patient care, be it emergency or elective. One of the worst affected population is those with underlying cardiovascular disease. In addition to effects on healthcare workers, it has serious consequences for the education and training of fellows. With currently worsening COVID-19 crisis in the country, one wonders the extent of its impact on various aspects of human health and the healthcare systems.

Publication Type

  Journal article.

<330>

Accession Number

  20203569762

Author

  Kritika Upadhyay; Sonu Goel

Title

  Short-term impact of a web-based COVID-19 certificate program on knowledge of global public health professionals.

Source

  Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):150-157. 16 ref.

Publisher

  Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

  Chandigarh

Country of Publication

India

Abstract

   Background: Despite global strategies for containment adopted so far, the incidence of COVID-19 continues to rise across the globe transcending borders and cultures. The objective of this paper is to evaluate the impact of short-term Web-based COVID 19 certificate program on knowledge of global public health professionals in managing the corona pandemic in their respective countries. Materials and methods: A series of three webinars were conducted by the Department of Community Medicine and School of Public Health, PGIMER, Chandigarh, between April and May 2020. The program was supported by the Ministry of External Affairs, Government of India, through the Indian Technical and Economic Cooperation Scheme. The program focused on imparting basic knowledge about COVID-19 pandemic and its management to mid- and senior-level healthcare professionals, including program managers, academicians, researchers, and policymakers. The topics covered included 28 lectures under eight modules demonstrating good practices of India ranging from hospital management to field-based surveillance and administrative aspects. Results: A total of 131 participants from 17 countries of 5 continents (Asia, Africa, North America, South America, Oceanic) attended the program. Majority of participants were clinicians (n=55, 42%) followed by other healthcare staff, viz., lab technicians, pharmacists, information technology managers (n=42, 32.1%), academicians (n=19, 1.5%), and public health professionals (n=15, 11.5%). There was a significant increase in participant's knowledge score ($p < 0.0001$) after the all three programs. Majority (93.1%) of participants felt the program was excellent or very good, especially on relevancy of the program (74.4%) and its application in the workplace (74.4%). Conclusion: The program has not only successfully shown its effectiveness in increasing the knowledge and skills of global participants in managing corona pandemic but also helped in enhancing image of country by showcasing best practices of India to global participants.

Publication Type

   Journal article.

<331>

Accession Number

   20203569761

Author

   Nancy Sahni

Title

   Nutrition odds to even out corona.

Source

Publisher

Location of Publisher

  Chandigarh

Country of Publication

  India

Abstract

  The pandemic of COVID-19 has taken the world unaware. Spread of the novel coronavirus, SARS-CoV-2, has reached a pandemic status. Elderly and people with comorbidities (obesity, type 2 diabetes) are hit the hardest with this respiratory disease. Optimum nutritional status is one of the important forms of defense against the process of existence of new viral pathogens. Nutritional malnutrition (imbalanced intake of macronutrients as well as micronutrients) is rampant, both in developing and the developed world; therefore, it is important to check the nutritional status of the patients for studying the cause of the viral disease. Overall immunity is suppressed in case of micronutrient deficiency since it affects cell-mediated and adaptive immune response leading to irregulating of immune response. Nutrition knowledge and research has widened the horizons of prevention and cure of dreaded virus threats, such as COVID-19. It identifies further progress in basic and clinical research for incorporating the type of foods which can make our immune system strong enough to resist the infections. Enhancement of public health is of utmost concern and this has to be from natural things rather than artificially incorporated.

Publication Type

  Journal article.

<332>

Accession Number

  20203569760

Author

  Kanika Arora; Sandeep Bansal

Title

  Impact of COVID-19 on ENT practices in a tertiary care center.

Source

  Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):142-144. 4 ref.

Publisher

  Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

  Chandigarh

Country of Publication

India

Abstract

The increased risk faced by otorhinolaryngologists during COVID-19 is due to high concentration of viral particles in the upper aerodigestive tract. There have been multiple recommendations and reviews for COVID pandemic among the otolaryngologists for different regions of the world, but it is more of lessons learnt than definitive evidence due to lack of any study on the healthcare worker. Therefore, we must learn from each other's prospective so as to change lessons into practice and time testing of all these might bring out the most applicable standard of care. This study focuses on the changes in the operation theater (OT), outpatient department (OPD), emergency, and other routine services in the Otorhinolaryngology department of PGIMER which caters to a majority of North Indian population.

Publication Type

Journal article.

<333>

Accession Number

20203569758

Author

Goel, S.; Jaswal, N.; Kaur, R.; Singh, A.

Title

Managing vulnerability to COVID-19 through "Salaam Namaste Campaign" - our traditional way of greeting.

Source

Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):134-136. 15 ref.

Publisher

Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

Chandigarh

Country of Publication

India

Abstract

Infectious diseases are one of the major global health concerns affecting innumerable individuals worldwide. Lately, in December 2019, a novel coronavirus (2019-nCoV), now COVID-19 has emerged in

Wuhan, China and spread its wing over the whole globe. The fact, that there is no vaccine and medicine available to treat and prevent the COVID infection, has forced everyone to avoid physical contacts followed by an advice to stay safe at home. As a part of its health promotion activity, Department of Community Medicine and School of Public Health, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh had started a new drive "From handshake to hands-free greetings", christened as "SALAAM NAMASTE" Campaign from February 5, 2019, long time before the onset of novel COVID-19 pandemic. The aim of this awareness initiative was to promote hands-free way of greetings to reduce the transmission of pathogens and infections from one another. This practice has been recommended by many specialists worldwide calling it a "modern-day" health hazard as handshaking is responsible for transmission of around 90% of bacteria.

Publication Type

Journal article.

<334>

Accession Number

20203569752

Author

Shalini Gainder; Arshi Syal

Title

Antenatal care in pandemic and managing pregnancy with COVID-19.

Source

Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):103-107. 19 ref.

Publisher

Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

Chandigarh

Country of Publication

India

Abstract

Limited data were available for managing a pregnant woman developing COVID-19 infection as the pandemic gripped the world. Presumptive information for guiding the management of pregnancy and COVID-19-infected women came from various bodies, such as Royal College of Obstetricians and Gynaecologists (RCOG) and American College of Obstetricians and Gynecologists (ACOG), which were updated from time to time as more information was built up, publications came from China, US, and UK as

pregnant women with COVID-19 got admitted with infection. Indian Council of Medical Research also prepared guidelines for India based on the publications of international agencies. The obstetrician should have protocols to manage women who are pregnant, individualizing risk stratification of each woman, management of person who is under investigation (PUI) or the suspect for COVID-19, and management protocol for confirmed case of COVID-19 infection, with adequate preparation to face the situation and training of all healthcare workers. It appears that pregnant women are not at increased risk to develop the viral infection and only 5% will have severe pneumonia. If infected most would have mild disease and the pregnancy will not impact the overall outcome of the illness. The incidence of cesarean section is reported higher in women delivered with COVID-19. Vertical transmission to the baby is controversial and women may be advised to breast feed.

Publication Type

  Journal article.

<335>

Accession Number

  20203569751

Author

  Aditi Kapur; Richa Mishra

Title

  The lockdown diet: a recipe for impending surge of dental caries cases in children?

Source

  Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):100-102. 12 ref.

Publisher

  Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

  Chandigarh

Country of Publication

  India

Abstract

  The ongoing lockdown situation due to COVID-19 pandemic is having its influence on the physical and mental health of individuals in varied ways, with a majority of the population struggling with a change in patterns of day-to-day chores, routine, and behavior. This change of pattern is also observed in diet and nutrition of people, particularly children, who are facing this unique challenge. The influence of dietary habits on overall health in general and oral health in particular can never be overemphasized. The changes

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in dietary patterns among children during these times may, therefore, have an impact on dental caries cases in the near future.

Publication Type

Journal article.

<336>

Accession Number

20203569750

Author

Swapnajeet Sahoo; Gurmeet Singh; Ranjit Ps Bhogal; Aseem Mehra; Aggarwal, A. K.; Kapil Goel; Usha Dutta; Ashish Bhalla; Lakshmi, P. V. M.; Puri, G. D.; Sandeep Grover

Title

Psychosocial issues among the "faceless corona warriors": the hospital housekeeping staff and sanitary workers on COVID-19 duty: an exploratory survey from a tertiary healthcare center from north India.

Source

Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):94-99. 18 ref.

Publisher

Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

Chandigarh

Country of Publication

India

Abstract

Background: The existing literature on the mental health outcomes of frontline healthcare workers (HCWs) is silent over the psychosocial issues being faced by the housekeeping/hospital attendants (HAs) and sanitary attendants (SAs) who are also actively involved in COVID-19 patient care and in biomedical waste management. This group of HCWs can be considered as the "faceless corona warriors", and their psychosocial issues needs to be focussed upon too. Aim: To evaluate the psychosocial issues and problems related to issues specific to carrying out duties in COVID-19 wards among the HAs and SAs. Materials and methods: An interview-based approach (cross-sectional assessment) conducted by healthcare professionals in the local languages of the HAs and SAs was followed. Patient Health Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder-7 (GAD-7) were used to assess depression and anxiety, respectively. Along with it, a self-designed questionnaire was added to evaluate the different emotional states and problems faced by the HAs and SAs during their COVID-19 duty. Results: A total of 100 participants (62 HAs and 38

SAs) were enrolled for this study. Overall, 11% reported mild anxiety and 21% reported mild depressive symptoms (as per the GAD-7 and PHQ-9 grading) with an overall psychological morbidity of 25%. A significant proportion (one-third to one-fourth) of the participants reported negative emotional experiences, such as that of sadness, scared, anxious, loneliness, socially disconnectedness, being used, and feeling stigmatized for working in COVID areas. Overall, 40% of the participants were 'very scared' of infecting their family members and two-fifths (39%) reported that their family members were worried for "most of the time" about them getting ill. Further, about one-fifth (19%) of the participants had difficulty in learning the steps of donning and doffing of personal protective equipments (PPEs), and one-fourth (25%) reported forgetting the steps of donning and doffing process. More than half of the participants reported of work overload and hectic duty shifts, and majority of the participants reported feeling uncomfortable and "dizzy", having headache, and feeling thirsty during duty hours while on PPEs. Conclusion: Our findings suggest that a substantial proportion of HAs and SAs have mild anxiety, depression, and several significant negative emotional states as well as family-related concerns during COVID-19 duty period and while under quarantine. They also reported significant and genuine problems related to PPEs usage and infection control measures. Timely steps in the form of appropriate mental health support as well as adequate counseling and reassurance during training can prove beneficial in allying the concerns of this group of HCWs engaged on COVID-19 duties.

Publication Type

  Journal article.

<337>

Accession Number

  20203569746

Author

  Saswati Behera; Monika Bawa; Shailesh Solanki; Sandeep Grover; Ravi P Kanojia; Ram Samujh

Title

  Knowledge, perception, and practices toward COVID-19 among healthcare workers of pediatric surgery specialty in a tertiary care center of India: a cross-sectional study.

Source

  Journal of Postgraduate Medicine, Education and Research; 2020. 54(3):78-81. 10 ref.

Publisher

  Postgraduate Institute of Medical Education and Research, Chandigarh

Location of Publisher

  Chandigarh

Country of Publication

  India

Abstract

  Background: Coronavirus disease outbreak has affected more than 100 countries worldwide with more than 100,000 cases, during the first week of March 2020. As there are no approved therapeutics or vaccines for the treatment/prevention of COVID-19 till date, awareness among healthcare workers (HCWs) about the disease, mode of transmission, safety precautions, and early diagnosis plays a great role. Background: To investigate the knowledge, perception, and practices among HCWs of pediatric surgery toward COVID-19. Materials and methods: A cross-sectional, web-based study was conducted among HCWs posted in the Department of Pediatric Surgery, PGIMER, during the first week of May 2020 who were supposed to be involved in the care of COVID-suspected or positive patients. A 26-item survey instrument was devised and circulated via e-mail. A Chi-square test was applied to know the levels of associations between variables, with p value < 0.05 set to be significant. Results: Of 100 responders, 98 responded to a question regarding common symptoms with fever (98%), dry cough (89.8%), and sore throat (81.6%). While asked about the situations of pediatric surgical relevance like the progression of severity, majority (75.8%) opted for difficulty in breathing, followed by persistent high fever (78.9%). Regarding routine practices, HCWs were aware of procedures such as endotracheal tube suctioning (99%), tracheal sample collection (90.9%), changing of ventilator tubings (78.8%), and chest physiotherapy (60.6%) which are liable for transmission. Vertical transmission through breast milk and immediate postpartum care of babies born to infected mothers were associated with inadequate knowledge. Conclusion: HCWs are high-risk group for COVID 19; only knowledge and training can help to prevent and contain the disease. HCWs involved in pediatric surgical specialty had accepted levels of perception. Regular scheduled educational and training programs are crucial to fight with this disease.

Publication Type

  Journal article.

<338>

Accession Number

  20203569615

Author

  Marinaccio, A.; Boccuni, F.; Rondinone, B. M.; Brusco, A.; D'Amario, S.; Iavicoli, S.

Title

  Occupational factors in the COVID-19 pandemic in Italy: compensation claims applications support establishing an occupational surveillance system.

Source

  Occupational and Environmental Medicine; 2020. 77(12):818-821. 11 ref.

Publisher

  BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Introduction: The SARS-CoV-2 pandemic is an impacting challenge for occupational health. Epidemiological surveillance of COVID-19 includes systematic tracking and reporting of the total cases and deaths, but suitable experiences of surveillance systems for identifying the occupational risk factors involved in the COVID-19 pandemic are still missing, despite the interest for occupational safety and health. Methods: A methodological approach has been implemented in Italy to estimate the occupational risk of infection, classifying each economic sector as at low, medium-low, medium-high and high risk, based on three parameters: exposure probability, proximity index and aggregation factor. Furthermore, during the epidemic emergency, the Italian Workers' Compensation Authority introduced the notation of COVID-19 work-related infection as an occupational injury and collected compensation claims of workers from the entire national territory. Results: According to compensation claims applications, COVID-19 infection in Italy has been acquired at the workplace in a substantial portion of the total cases (19.4%). The distribution of the economic sectors involved is coherent with the activities classified at risk in the lockdown period. The economic sectors mostly involved were human health and social work activities, but occupational compensation claims also include cases in meat and poultry processing plants workers, store clerks, postal workers, pharmacists and cleaning workers. Conclusions: There is a need to go towards an occupational surveillance system for COVID-19 cases, including an individual anamnestic analysis of the circumstances in which the infection is acquired, for the prevention of occupational infectious risk, supporting insurance system effectiveness and managing vaccination policies.

Publication Type

Journal article.

<339>

Accession Number

20203569613

Author

Dobson, R.; Semple, S.

Title

Changes in outdoor air pollution due to COVID-19 lockdowns differ by pollutant: evidence from Scotland.

Source

Occupational and Environmental Medicine; 2020. 77(11):798-800. 13 ref.

Publisher

BMJ Publishing Group

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Location of Publisher

  London

Country of Publication

  UK

Abstract

  Objectives: To examine the impact of COVID-19 lockdown restrictions in March/April 2020 on concentrations of nitrogen dioxide (NO2) and ambient fine particulate matter (PM2.5) air pollution measured at roadside monitors across Scotland by comparing data with previous years. Methods: Publicly available data of PM2.5 concentrations from reference monitoring systems at sites across Scotland were extracted for the 31-day period immediately following the imposition of lockdown rules on 23 March 2020. Similar data for 2017, 2018 and 2019 were gathered for comparison. Mean period values were calculated from the hourly data and logged values compared using pairwise t-tests. Weather effects were corrected using meteorological normalisation. Results: NO2 concentrations were significantly lower in the 2020 lockdown period than in the previous 3 years (p<0.001). Mean outdoor PM2.5 concentrations in 2020 were much lower than during the same period in 2019 (p<0.001). However, despite UK motor vehicle journeys reducing by 65%, concentrations in 2020 were within 1 micro g/m3 of those measured in 2017 (p=0.66) and 2018 (p<0.001), suggesting that traffic-related emissions may not explain variability of PM2.5 in outdoor air in Scotland. Conclusions: The impact of reductions in motor vehicle journeys during COVID-19 lockdown restrictions may not have reduced ambient PM2.5 concentrations in some countries. There is also a need for work to better understand how movement restrictions may have impacted personal exposure to air pollutants generated within indoor environments. This article is made freely available for use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

Publication Type

  Journal article.

<340>

Accession Number

  20203569542

Author

  Ruiy Walis; Hsu ShihYung; Tsai HsienLung; Chen ChenTe; Tseng ChihPeng; Chen WeiTeing

Title

  COVID-19 mimicking Dengue fever with the initial manifestation of retro-orbital pain - a rare case.

Source

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Publisher

  Elsevier (Singapore) Pte Ltd.

Location of Publisher

  Singapore

Country of Publication

  Singapore

Publication Type

  Correspondence.

<341>

Accession Number

  20203569512

Author

  Mazet, J. M.; Gea-Mallorqui, E.

Title

  CD8+ T cells remember same bits of SARS-CoV-2.

Source

  Nature Reviews Immunology; 2020. 20(10):592-592. 1 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Publication Type

  Journal article.

<342>

Accession Number

  20203569504

Author

  Gea-Mallorqui, E.; Compeer, E. B.

Title

  SARS-CoV-2 vaccine - think globally, act locally.

Source

  Nature Reviews Immunology; 2020. 20(10):590-590. 1 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Publication Type

  Journal article.

<343>

Accession Number

  20203569465

Author

  Borrmann, H.; Rigby, R. E.

Title

  A versatile mouse model of COVID-19.

Source

  Nature Reviews Immunology; 2020. 20(8):460-460. 1 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Publication Type

  Journal article.

<344>

Accession Number

  20203569425

Author

  Risson, E.

Title

  Inactivated vaccine for SARS-CoV-2.

Source

  Nature Reviews Immunology; 2020. 20(6):353-353. 1 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Publication Type

  Journal article.

<345>

Accession Number

  20203569408

Author

  Bradbury, R. S.; Piedrafita, D.; Greenhill, A.; Mahanty, S.

Title

  Will helminth co-infection modulate COVID-19 severity in endemic regions?

Source

  Nature Reviews Immunology; 2020. 20(6):342-342. 6 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  As COVID-19 spreads through the world, most cases to date are in middle- and high-income nations. The impact on resource-poor nations remains unknown. Amongst many factors likely to affect the impact of COVID-19 in these areas, co-infections need to be considered. Here, we discuss whether the immunomodulatory effects of helminth infections may affect COVID-19 severity.

Publication Type

  Correspondence.

<346>

Accession Number

  20203569348

Author

  Castro, C. M. S. de; Vaz, C. T.; Moreira, B. de S.; Mambrini, J. V. de M.; Torres, J. L.; Braga, L. de S.; Andrade, F. B. de; Lima-Costa, M. F.

Title

  Relationship between work before the epidemic and having gone out to work during the epidemic among participants in the Brazilian Longitudinal Study of Aging: results of the ELSI-COVID-19 initiative. (Special Issue.)

Source

  Cadernos de Saude Publica; 2020. 36(Suplemento 3). 10 ref.

Publisher

  Escola Nacional de Saude Publica

Location of Publisher

  Rio de Janeiro

Country of Publication

  Brazil

Abstract

  The objective of this study was to examine the prevalence of going out to work during the COVID-19 epidemic, and the factors associated with this, among adults aged 50 years and over who were in paid employment before its onset. We used data from the second wave of the Brazilian Longitudinal Study of Aging (ELSI-Brazil), conducted through face-to-face interviews between August 2019 and March 2020 (before the onset of the epidemic), in a representative national sample of adults aged 50 and over, and data obtained through telephone interviews carried out among the same participants (ELSI-COVID-19 initiative), conducted between May 26 and June 8, 2020 (during the epidemic). The analyses were based on odds ratios (OR) estimated by logistic regression. The participants' mean age was 59.9 years (SD = 6.5). The prevalence of going out to work in the previous seven days was 38.4% (95%CI: 31.3-46.1), 50.2% among men and 25.1% among women (formal work, self-employment, and informal work). The results showed that among men, the likelihood of going out to work was lower among those aged 60 to 69 years compared to those aged 50 to 59 years (OR = 0.27; 95%CI: 0.15-0.48). Among women, the likelihood was lower among those who were self-employed (OR = 0.28; 95%CI: 0.12-0.64) or in informal employment before the epidemic (OR = 0.25; 95%CI: 0.09-0.69), compared to those in formal employment. One of the hypotheses to explain this association is that women in informal employment were more likely to be dismissed, and that self-employed women have stopped working during the epidemic.

Publication Type

  Journal article.

<347>

Accession Number

  20203569347

Author

Macinko, J.; Seixas, B. V.; Woolley, N. O.; Andrade, F. B. de; Lima-Costa, M. F.

Title

Prevalence and characteristics of Brazilians aged 50 and over that received a doctor's diagnosis of COVID-19: the ELSI-COVID-19 initiative. (Special Issue.)

Source

Cadernos de Saude Publica; 2020. 36(Suplemento 3). 11 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has caused over half a million deaths worldwide. Brazil has been particularly impacted, registering more than 1.3 million infections and 57,000 deaths by late June 2020. Aggregate numbers of cases are essential in modeling the epidemic and planning responses; however, more detailed analysis of risk factors associated with SARS-CoV-2 infection are needed. Our study provides an initial examination of characteristics associated with receiving a doctor's diagnosis of COVID-19 among a nationally representative sample of Brazilians aged 50 and over. Data are derived from the second wave of the Brazilian Longitudinal Study of Aging (ELSI-Brazil) and a telephone follow-up survey to ELSI-Brazil participants, known as the ELSI-COVID-19 initiative. The telephone survey was conducted between 26 May and 8 June 2020. Results show that about 2.4% (n = 70) of the sample reported being told by a doctor they had COVID-19, however, only about half of these individuals (n = 37) reported receiving a diagnostic confirmation from viral testing (RT-PCR). Demographic factors (aged 50-60 years), socioeconomic factors (lower household income), health-related factors (obesity, three or more chronic conditions), and geography (living in the Northern region of the country) were positively associated with reporting a COVID-19 diagnosis. Despite the descriptive and preliminary nature of these findings, results reported here suggest the need for more targeted approaches to enhance personal protection and provide greater viral testing options, especially for older, sicker and more vulnerable adults in Brazil.

Publication Type

Journal article.

<348>

Accession Number

20203569346

Author

Lima-Costa, M. F.; Macinko, J.; Andrade, F. B. de; Souza Junior, P. R. B. de; Vasconcellos, M. T. L. de; Oliveira, C. M. de

Title

ELSI-COVID-19 initiative: methodology of the telephone survey on coronavirus in the Brazilian Longitudinal Study of Aging. (Special Issue.)

Source

Cadernos de Saude Publica; 2020. 36(Suplemento 3). 14 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The COVID-19 pandemic (caused by the SARS-CoV-2) is a public health emergency of international concern that particularly affects older people. Brazil is one of the countries most affected by the pandemic, ranking second with the highest number of confirmed cases and deaths worldwide as of mid-June 2020. The ELSI-COVID-19 initiative is based on telephone interviews with participants of the Brazilian Longitudinal Study of Aging (ELSI-Brazil), conducted on a nationally representative sample of the population aged 50 or older. This initiative aims to provide information on adherence to preventive measures (social distancing, wearing masks, and handwashing/hygiene); reasons for leaving the house, when that was the case; difficulties obtaining medications, medical diagnosis of COVID-19, and receipt of confirmatory results; use of health-care services (recent care-seeking, care-seeking location, care receipt, among other aspects); and mental health (sleep, depression, and loneliness). The first round of telephone interviews was conducted between May 26 and June 8, 2020. The second and third rounds are expected to occur within the coming months. This article presents this initiative methodology and some sociodemographic characteristics of the 6,149 participants in the survey first round, relative the Brazilian population within the same age group.

Publication Type

Journal article.

<349>

Accession Number

20203569345

Author

Batista, S. R.; Souza, A. S. S. de; Nogueira, J.; Andrade, F. B. de; Thume, E.; Teixeira, D. S. da C.; Lima-Costa, M. F.; Facchini, L. A.; Nunes, B. P.

Title

Protective behaviors for COVID-19 among Brazilian adults and elderly living with multimorbidity: the ELSI-COVID-19 initiative. (Special Issue.)

Source

Cadernos de Saude Publica; 2020. 36(Suplemento 3). 48 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

To measure the occurrence of protective behaviors for COVID-19 and sociodemographic factors according to the occurrence of multimorbidity in the Brazilian population aged 50 or over was the objective of this study. We used data from telephone surveys among participants of ELSI-Brazil (Brazilian Longitudinal Study of Aging), conducted between May and June 2020. The use of non-pharmacological prevention measures for COVID-19, reasons for leaving home according to the presence of multimorbidity and sociodemographic variables were evaluated. among 6,149 individuals. Multimorbidity was more frequent in females, married, aged 50-59 years and residents of the urban area. Most of the population left home between once and twice in the last week, increasing according to the number of morbidities (22.3% no morbidities and 38% with multimorbidity). Leaving home every day was less common among individuals with multimorbidity (10.3%) and 9.3% left home in the last week to access health care. Hand hygiene (> 98%) and always wearing a mask when leaving home (> 96%) were almost universal habits. Greater adherence to social isolation was observed among women with multimorbidity when compared to men (PR = 1.49, 95%CI: 1.23-1.79). This adherence increased proportionally with age and inversely with the level of education. The protective behavior in people with multimorbidity seems to be greater in relation to the others, although issues related to social isolation and health care deserve to be highlighted. These findings can be useful in customizing strategies for coping with the current pandemic.

Publication Type

Journal article.

<350>

Accession Number

20203569344

Author

Peixoto, S. V.; Nascimento-Souza, M. A.; Mambrini, J. V. de M.; Andrade, F. B. de; Malta, D. C.; Lima-Costa, M. F.

Title

Health behaviours and the adoption of individual protection measures during the new coronavirus pandemic: the ELSI-COVID-19 initiative. (Special Issue.)

Source

Cadernos de Saude Publica; 2020. 36(Suplemento 3). 46 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The objective of this study was to evaluate whether healthy behaviours determine the adoption of individual protective measures to fight COVID-19. The data were obtained from the ELSI-COVID-19 initiative, a telephone survey conducted among participants in the Brazilian Longitudinal Study of Aging (ELSI-Brazil), which includes a national sample representative of the population aged 50 years or older. The outcomes evaluated were three protective measures (not having left home in the past week, wearing a mask when leaving home, and sanitizing hands when returning home), and the explanatory variables were health behaviours (smoking, alcohol consumption, consumption of fruits and vegetables, and physical activity). The associations were evaluated by logistic models, considering adjustments for potential confounding factors. A total of 5,827 individuals participated in the analysis; 32.2% did not leave home in the last week, and among those who left home, 97.5% used a face mask, and 97.3% sanitized their hands when they returned home. The practice of physical activity at the recommended levels was associated with a lower chance of not leaving home in the previous week. Ex-smokers were more likely to use a mask, and those who practised physical activity were less likely to adopt this protective measure. Individuals with low-risk alcohol consumption had a higher chance of sanitizing their hands. Actions aimed at increasing the adoption of protective measures to fight the new coronavirus should consider the existence of vulnerable groups, which can be identified by the distribution of other health behaviours in the population.

Publication Type

Journal article.

<351>

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347

Accession Number

20203569343

Author

Lima-Costa, M. F.; Mambrini, J. V. de M.; Andrade, F. B. de; Peixoto, S. W. V.; Macinko, J.

Title

Social distancing, use of face masks and hand washing among participants in the Brazilian Longitudinal Study of Aging: the ELSI-COVID-19 initiative. (Special Issue.)

Source

Cadernos de Saude Publica; 2020. 36(Suplemento 3). 31 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The aim of the study was to examine the prevalence of social distancing, the use of face masks and hand washing when leaving home among Brazilian adults aged 50 or over. Data from 6,149 telephone interviews were used, conducted between May 26 and June 8, 2020 among participants in the Brazilian Longitudinal Study of Aging (ELSI-Brazil). Social distancing was defined by not having left home in the last seven days. Only 32.8% of study participants did not leave home during the period considered, 36.3% left between one and two times, 15.2% between three and five times and 15.7% left every day. The main reasons for leaving home were to buy medicine or food (74.2%), to work (25.1%), to pay bills (24.5%), for health care (10.5%), to exercise (6.2%), and to meet family or friends (8.8%). Among those who left home, 97.3% always wore face masks and 97.3% always performed hand washing. Women left home less often than men. Men left home more often to work and exercise while women left home more often to seek healthcare. Men (odds ratio - OR = 1.84), those with higher education (OR = 1.48 and 1.95 for 5-8 and 9 years, respectively) and urban residents (OR = 1.54) left home more frequently to perform essential activities, regardless of age or other characteristics. Results show low adherence to social distancing, but high prevalence in the reported use of face masks and hand washing.

Publication Type

Journal article.

<352>

Accession Number

20203569342

Author

Macinko, J.; Woolley, N. O.; Seixas, B. V.; Andrade, F. B. de; Lima-Costa, M. F.

Title

Health care seeking due to COVID-19 related symptoms and health care cancellations among older Brazilian adults: the ELSI-COVID-19 initiative. (Special Issue.)

Source

Cadernos de Saude Publica; 2020. 36(Suplemento 3). 26 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The continent of the Americas has the greatest number of people infected and deaths associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the world. Brazil occupies the 2nd position in numbers of infected cases and deaths, preceded only by the United States. Older adults and those with pre-existing chronic illnesses are more vulnerable to the consequences of the virus. The SARS-CoV-2 epidemic has serious consequences for health services. Therefore, an assessment of the pandemic's effect on the older Brazilian population is urgently needed. The study examines the prevalence of COVID-19 related symptoms, care-seeking, and cancellation of surgery or other scheduled medical care among a nationally representative sample of Brazilians aged 50 and over derived from the Brazilian Longitudinal Study of Aging (ELSI-Brazil) and a telephone follow-up survey (the ELSI-COVID-19 initiative) between late May and early June 2020. About 10.4% of older adults reported any fever, dry cough or difficulty breathing in the 30 days prior to the interview, with the highest prevalence in the North region (50%). Among individuals with symptoms, only 33.6% sought care. Individuals living in the South or Southeast regions were significantly less likely to seek care for COVID-19 related symptoms. Nearly one in six participants had to cancel scheduled surgery or other medical care; this proportion was higher among women, those with more education, and people with multiple chronic conditions. This paper is among the first to investigate the effect of COVID-19 on health care use in Brazil among older adults. Results highlight the need to adapt health care delivery (such as through telemedicine) to ensure the continuity of care as well as the urgent need for wide dissemination of information to guide the population on disease prevention measures and how to obtain healthcare when needed.

Publication Type

Journal article.

<353>

Accession Number

  20203569276

Author

  Fricker, J.

Title

  HMOs and infections.

Source

  Agro Food Industry Hi-Tech; 2020. 31(3):17-20. 30 ref.

Publisher

  TeknoScienze S.r.l

Location of Publisher

  Milan

Country of Publication

  Italy

Abstract

  Human milk oligosaccharides (HMOs), found in breast milk, offer potential as new treatments for bacterial and viral infections. Mechanisms for the protective effects of HMOs include HMOs (i) selectively nourishing the growth of specific strains of bifidobacteria, thereby allowing the microbiota to outcompete pathogenic organisms, (ii) resemblance to cell surface glycan receptors as a result of which they (HMOs) bind to bacteria and viruses and inactivate them, and (iii) modulating the immune system by shifting T cell responses towards more balanced Th1/Th2 cytokine production in the current review evidence is presented showing how the presence of the HMO lacto-N-difucohexaose I (LNDFHI) correlates with reduction in the growth of Group B streptococcus (GBS), how the HMO lacto-N-neotetraose (LNnT) is associated with reduced transmission of human immunodeficiency virus (HIV), and how HMOs could play a role in the fight against COVID-19.

Publication Type

  Journal article.

<354>

Accession Number

20203569097

Author

Sugano, N.; Ando, W.; Fukushima, W.

Title

Cluster of severe acute respiratory syndrome coronavirus 2 infections linked to music clubs in Osaka, Japan.

Source

Journal of Infectious Diseases; 2020. 222(10):1635-1640. 22 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: It is important to understand the mode of transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) for disease control. We aimed to clarify how soon SARS-CoV-2 transmission can occur after infection by asymptomatically infected individuals. Methods: We analyzed the publicly available epidemiological information for a cluster of 108 cases of coronavirus disease 2019 (COVID-19) cases in Osaka, Japan. Results: Among cases, 51 cases attended a live music club only once and were considered to have a single visit. Ten remained asymptomatic at the time of COVID-19 diagnosis by reverse-transcription polymerase chain reaction, which was on average 20 days after exposure. Three routes of secondary transmission were identified, with 2-4 days from infection to transmission. All index cases for secondary transmission were asymptomatic at the time of contact with other people. Based on the date of symptom onset in the remaining 41 cases, the period from exposure to illness ranged from 2 to 17 days. Conclusions: Seemingly healthy people could spread SARS-CoV-2 during intense activities in enclosed environments without sufficient ventilation. Asymptomatically infected persons can transmit the virus as soon as 2 days after infection. Continuous efforts to avoid crowding and to maintain personal hygiene are needed for effective control of COVID-19.

Publication Type

Journal article.

<355>

Accession Number

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20203569091

Author

Koo BonSang; Oh HanSeul; Kim Green; Hwang EunHa; Jung HoYin; Lee YoungJeon; Kang PhilYong; Park JaeHak; Ryu ChoongMin; Hong JungJoo

Title

Transient lymphopenia and interstitial pneumonia with endotheliitis in SARS-CoV-2-infected macaques.

Source

Journal of Infectious Diseases; 2020. 222(10):1596-1600. 15 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Using a reliable primate model is critical for developing therapeutic advances to treat humans infected with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Here, we exposed macaques to high titers of SARS-CoV-2 via combined transmission routes. We observed acute interstitial pneumonia with endotheliitis in the lungs of all infected macaques. All macaques had a significant loss of total lymphocytes during infection, which were restored over time. These data show that SARS-CoV-2 causes a coronavirus disease 2019 (COVID-19)-like disease in macaques. This new model could investigate the interaction between SARS-CoV-2 and the immune system to test therapeutic strategies.

Publication Type

Journal article.

<356>

Accession Number

20203569090

Author

Gil, R. M.; Marcelin, J. R.; Zuniga-Blanco, B.; Marquez, C.; Trini Mathew; Piggott, D. A.

Title

COVID-19 pandemic: disparate health impact on the Hispanic/Latinx population in the United States.

Source

Journal of Infectious Diseases; 2020. 222(10):1592-1595. 24 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In December 2019, a novel coronavirus known as SARS-CoV-2, emerged in Wuhan, China, causing the coronavirus disease 2019 we now refer to as COVID-19. The World Health Organization declared COVID-19 a pandemic on 12 March 2020. In the United States, the COVID-19 pandemic has exposed preexisting social and health disparities among several historically vulnerable populations, with stark differences in the proportion of minority individuals diagnosed with and dying from COVID-19. In this article we will describe the emerging disproportionate impact of COVID-19 on the Hispanic/Latinx (henceforth: Hispanic or Latinx) community in the United States, discuss potential antecedents, and consider strategies to address the disparate impact of COVID-19 on this population.

Publication Type

Journal article.

<357>

Accession Number

20203568832

Author

Silva, F. M. A. da; Silva, K. P. A. da; Oliveira, L. P. M. de; Costa, E. V.; Koolen, H. H. F.; Pinheiro, M. L. B.; Souza, A. Q. L. de; Souza, A. D. L. de

Title

Flavonoid glycosides and their putative human metabolites as potential inhibitors of the SARS-CoV-2 main protease (Mpro) and RNA-dependent RNA polymerase (RdRp).

Source

Memorias do Instituto Oswaldo Cruz; 2020. 115(9). 34 ref.

Publisher

Instituto Oswaldo Cruz

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

BACKGROUND: Since the World Health Organization (WHO) declared Coronavirus disease 2019 (COVID-19) to be a pandemic infection, important severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) non-structural proteins (nsp) have been analysed as promising targets in virtual screening approaches. Among these proteins, 3-chymotrypsin-like cysteine protease (3CLpro), also named main protease, and the RNA-dependent RNA polymerase (RdRp), have been identified as fundamental targets due to its importance in the viral replication stages. OBJECTIVES: To investigate, in silico, two of the most abundant flavonoid glycosides from Dysphania ambrosioides; a medicinal plant found in many regions of the world, along with some of the putative derivatives of these flavonoid glycosides in the human organism as potential inhibitors of the SARS-CoV-2 3CLpro and RdRp. METHODS: Using a molecular docking approach, the interactions and the binding affinity with SARS-CoV-2 3CLpro and RdRp were predicted for quercetin-3-O-rutinoside (rutin), kaempferol-3-O-rutinoside (nicotiflorin) and some of their glucuronide and sulfate derivatives. FINDINGS: Docking analysis, based on the crystal structure of 3CLpro and RdRp, indicated rutin, nicotiflorin, and their glucuronide and sulfate derivatives as potential inhibitors for both proteins. Also, the importance of the hydrogen bond and -based interactions was evidenced for the presumed active sites. MAIN CONCLUSIONS: Overall, these results suggest that both flavonoid glycosides and their putative human metabolites can play a key role as inhibitors of the SARS-CoV-2 3CLpro and RdRp. Obviously, further researches, mainly in vitro and in vivo experiments, are necessary to certify the docking results reported here, as well as the adequate application of these substances. Furthermore, it is necessary to investigate the risks of D. ambrosioides as a phytomedicine for use against COVID-19.

Publication Type

Journal article.

<358>

Accession Number

20203568472

Author

Schiaffino, M. T.; Natale, M. di; Garcia-Martinez, E.; Navarro, J.; Munoz-Blanco, J. L.; Demelo-Rodriguez, P.; Sanchez-Mateos, P.

Title

Immunoserologic detection and diagnostic relevance of cross-reactive autoantibodies in coronavirus disease 2019 patients.

Source

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354

Journal of Infectious Diseases; 2020. 222(9):1439-1443. 15 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Background: During the coronavirus disease 2019 (COVID-19) pandemic, we detected a new immunofluorescence (IF) pattern in serum autoantibody (autoAb) screening of laboratory-confirmed COVID-19 patients. Methods: The IF pattern was composed of liver and gastric mucosa staining on rat kidney/liver/stomach sections. Results: We describe 12 patients positive for the cross-reactive antibody, compared with a negative group of 43 hospitalized COVID-19 patients, finding association with either neurologic or thrombotic complications. In sequential pre- and post-COVID-19 serum samples, we confirmed autoAb seroconversion. Conclusions: Our data indicate that autoAb screening in COVID-19 patients may be easily performed by IF and alert for autoreactive-mediated complications such as thrombotic or neurologic events.

Publication Type

  Journal article.

<359>

Accession Number

  20203568308

Author

  Jiang Hong

Title

  Development strategies for pest control industry after pandemic of COVID-19. [Chinese]

Source

  Chinese Journal of Hygienic Insecticides & Equipments; 2020. 26(5):401-405.

Publisher

  Editorial Department of the Chinese Journal of Hygienic Insecticides & Equipments

Location of Publisher

Nanjing

Country of Publication

China

Abstract

China achieved decisive success in control of pandemic COVID-19 and is applying a long-term action now to prevent new breakouts of COVID-19 in the mainland or imported from overseas. Pest control industry (PCO) is faced with challenges of dramatic decline of pest control market and cut-throat competition owing to slow down the economy. Pest control enterprises should lay stress on public health vision and redesign their services around the health vision. Upgrading the control ability level of PCO team is also suggested for changed market after epidemic. Other strategies include optimizing procedures of pest control and construction of modern business management system. Pest control enterprises should respond to the action of health China and expand the share of the government programs on pest control. If the changes of market are perceived and the opportunity is seized, pest control enterprises will achieve promotion and realize sustainable development.

Publication Type

Journal article.

<360>

Accession Number

20203568289

Author

Paul, R.; Ostermann, E.; Wei, Q.

Title

Advances in point-of-care nucleic acid extraction technologies for rapid diagnosis of human and plant diseases.

Source

Biosensors & Bioelectronics; 2020. 169. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

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356

Abstract

  Global health and food security constantly face the challenge of emerging human and plant diseases caused by bacteria, viruses, fungi, and other pathogens. Disease outbreaks such as SARS, MERS, Swine Flu, Ebola, and COVID-19 (on-going) have caused suffering, death, and economic losses worldwide. To prevent the spread of disease and protect human populations, rapid point-of-care (POC) molecular diagnosis of human and plant diseases play an increasingly crucial role. Nucleic acid-based molecular diagnosis reveals valuable information at the genomic level about the identity of the disease-causing pathogens and their pathogenesis, which help researchers, healthcare professionals, and patients to detect the presence of pathogens, track the spread of disease, and guide treatment more efficiently. A typical nucleic acid-based diagnostic test consists of three major steps: nucleic acid extraction, amplification, and amplicon detection. Among these steps, nucleic acid extraction is the first step of sample preparation, which remains one of the main challenges when converting laboratory molecular assays into POC tests. Sample preparation from human and plant specimens is a time-consuming and multi-step process, which requires well-equipped laboratories and skilled lab personnel. To perform rapid molecular diagnosis in resource-limited settings, simpler and instrument-free nucleic acid extraction techniques are required to improve the speed of field detection with minimal human intervention. This review summarizes the recent advances in POC nucleic acid extraction technologies. In particular, this review focuses on novel devices or methods that have demonstrated applicability and robustness for the isolation of high-quality nucleic acid from complex raw samples, such as human blood, saliva, sputum, nasal swabs, urine, and plant tissues. The integration of these rapid nucleic acid preparation methods with miniaturized assay and sensor technologies would pave the road for the "sample-in-result-out" diagnosis of human and plant diseases, especially in remote or resource-limited settings.

Publication Type

  Journal article.

<361>

Accession Number

  20203568241

Author

  Babore, A.; Lombardi, L.; Viceconti, M. L.; Pignataro, S.; Marino, V.; Crudele, M.; Candelori, C.; Bramanti, S. M.; Trumello, C.

Title

  Psychological effects of the COVID-2019 pandemic: perceived stress and coping strategies among healthcare professionals.

Source

  Psychiatry Research; 2020. 293. 49 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Starting from China, the coronavirus disease (COVID-19) contagion spread unexpectedly and quickly all over the world, particularly affecting Italy. In the early stages of the epidemic, healthcare professionals have been in the front-line to manage the infection. The current study aimed to analyse the impact of COVID-19 outbreak on healthcare professionals and to detect some risk and protective factors of their distress levels, with regard to socio-demographic variables, direct exposure to COVID-19 and the coping strategies used to deal with stress. The data were collected during the peak of the infection. A total of 595 healthcare professionals enrolled in the study and completed the measures of socio-demographical and professional data, perceived stress (PSS) and coping strategies (COPE- NVI-25). Overall, we found that a positive attitude towards the stressful situation was the main protective factor, while female gender, seeking social support, avoidance strategies and working with COVID-19 patients were risk factors. Economic status, problem solving ability and turning to religion were not associated with stress levels. This study, one of the first on this topic, highlighted the main coping strategies used by healthcare professionals in facing the highly stressful situation caused by the pandemic.

Publication Type

Journal article.

<362>

Accession Number

20203568220

Author

Grey, I.; Arora, T.; Thomas, J.; Saneh, A.; Tohme, P.; Abi-Habib, R.

Title

The role of perceived social support on depression and sleep during the COVID-19 pandemic.

Source

Psychiatry Research; 2020. 293. 50 ref.

Publisher

Elsevier Ltd

Location of Publisher

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358

Oxford

Country of Publication

UK

Abstract

The aim of the present study was to examine the role of perceived social support pertaining to a range of psychological health outcomes amongst individuals undergoing social isolation and social distancing during COVID-19. A total of 2,020 participants provided responses to an online cross-sectional survey comprised of validated instruments including the Multidimensional Scale of Perceived Social Support (MSPSS), the Generalized Anxiety Disorder Scale (GAD-7), the Patient Health Questionnaire (PHQ-9), the Brief Irritability Test (BITe) and the UCLA Loneliness Scale (UCLA-LS). Individuals experiencing self-isolation had significantly higher rates of depression, irritability and loneliness compared to those who were not. The risk for elevated levels of depression symptoms was 63% lower in individuals who reported higher levels of social support compared to those with low perceived social support. Similarly, those with high social support had a 52% lower risk of poor sleep quality compared to those with low social support. Social support was found to be significantly associated with elevated risk for depression and poorer sleep quality. The results contribute to our understanding of differential psychological outcomes for individuals experiencing anti-pandemic measures.

Publication Type

Journal article.

<363>

Accession Number

20203568210

Author

Tso, I. F.; Park SoHee

Title

Alarming levels of psychiatric symptoms and the role of loneliness during the COVID-19 epidemic: a case study of Hong Kong.

Source

Psychiatry Research; 2020. 293. 45 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

  UK

Abstract

  Public health strategies to curb the spread of the coronavirus involve sheltering at home and social distancing are effective in reducing the transmission rate, but the unintended consequences of prolonged social isolation on mental health have not been investigated. We focused on Hong Kong for its very rapid and comprehensive response to the pandemic and strictly enacted social distancing protocols. Thus, Hong Kong is a model case for the population-wide practice of effective social distancing and provides an opportunity to examine the impact of loneliness on mental health during the COVID-19. We conducted an anonymous online survey of 432 residents in Hong Kong to examine psychological distress in the community. The results indicate a dire situation with respect to mental health. An astonishing 65.6% (95% C.I. = [60.6%, 70.4%]) of the respondents reported clinical levels of depression, anxiety, and/or stress. Moreover, 22.5% (95% C.I. = [18.2%, 27.2%]) of the respondents were showing signs of psychosis risk. Subjective feelings of loneliness, but not social network size, were associated with increased psychiatric symptoms. To mitigate the potential epidemic of mental illness in the near future, there is an urgent need to prepare clinicians, caregivers and stakeholders to focus on loneliness.

Publication Type

  Journal article.

<364>

Accession Number

  20203568209

Author

  Duan HongXia; Yan LinLin; Ding Xu; Gan YiQun; Kohn, N.; Wu JianHui

Title

  Impact of the COVID-19 pandemic on mental health in the general Chinese population: changes, predictors and psychosocial correlates.

Source

  Psychiatry Research; 2020. 293. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

UK

Abstract

The current COVID-19 pandemic is not only a threat to physical health, but also brings a burden to mental health in the general Chinese population. However, the temporal change of mental health status due to pandemic-related stress in relation to protective and risk factors to hostility is less known. This study was implemented at two timepoints, i.e., during the peak and the remission of the COVID-19 pandemic. 3233 Chinese individuals participated in the first wave, and among them 1390 participants were followed in a second wave. The result showed that fear significantly decreased over time, while depression level significantly increased during the second wave compared to the first wave of the survey. Younger age, lower-income, increased level of perceived stress, and current quarantine experience were significant predictors of depression escalation. Younger people and individuals who had a higher initial stress response tended to show more hostility. Furthermore, the use of negative coping strategy plays a potential intermediating role in the stress-related increase in hostility, while social support acts as a buffer in hostility in the general population under high stress. As the whole world is facing the same pandemic, this research provides several implications for public mental health intervention.

Publication Type

Journal article.

<365>

Accession Number

20203568153

Author

Lei ZiNing; Wu ZhuoXun; Dong ShaoWei; Yang DongHua; Zhang LiTu; Ke ZunFu; Zou Chang; Chen ZheSheng

Title

Chloroquine and hydroxychloroquine in the treatment of malaria and repurposing in treating COVID-19. (Special Issue: Youyou Tu 90th birthday tribute.)

Source

Pharmacology and Therapeutics; 2020. 216. many ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

  Chloroquine (CQ) and Hydroxychloroquine (HCQ) have been commonly used for the treatment and prevention of malaria, and the treatment of autoimmune diseases for several decades. As their new mechanisms of actions are identified in recent years, CQ and HCQ have wider therapeutic applications, one of which is to treat viral infectious diseases. Since the pandemic of the coronavirus disease 2019 (COVID-19), CQ and HCQ have been subjected to a number of in vitro and in vivo tests, and their therapeutic prospects for COVID-19 have been proposed. In this article, the applications and mechanisms of action of CQ and HCQ in their conventional fields of anti-malaria and anti-rheumatism, as well as their repurposing prospects in anti-virus are reviewed. The current trials and future potential of CQ and HCQ in combating COVID-19 are discussed.

Publication Type

  Journal article.

<366>

Accession Number

  20203568091

Author

  Alomo, M.; Gagliardi, G.; Peloche, S.; Somers, E.; Alzina, P.; Prokopez, C. R.

Title

  Psychological effects during the COVID-19 outbreak in Argentina. [Spanish]

Source

  Revista de la Facultad de Ciencias Medicas; 2020. 77(3):176-181. 14 ref.

Publisher

  Universidad Nacional de Cordoba

Location of Publisher

  Cordoba

Country of Publication

  Argentina

Abstract

  After the World Health Organization (WHO) declared the new coronavirus (COVID-19) pandemic, measures were implemented worldwide with the aim of containing its progression. On March 20, 2020, mandatory preventive confinement began in Argentina. Studies carried out within the framework of this pandemic in China, have shown psychological consequences as a result of fear of contagion and isolation measures. The objective of this study was to explore through a survey, the attitudes and fears towards the

COVID-19, the presence of depressive symptoms and the pattern of alcohol consumption of the argentine population during quarantine (n = 759). As a result, we observed that the fear towards COVID-19 was greater among people between 55 and 59 years old, with a sharp decrease in those over 70. The depressed mood and the increased alcohol consumption were more frequent among young people, and depressed mood was also more frequent in those who lost their jobs during the quarantine. Finally, more than 90% agreed with the quarantine measure. The results of this study provide information about risk groups for the development of psychopathological symptoms. These results provide the basis for the design of preventive and therapeutic strategies.

Publication Type

  Journal article.

<367>

Accession Number

  20203567979

Author

  Graell, M.; Moron-Nozaleda, M. G.; Camarneiro, R.; Villasenor, A.; Yanez, S.; Munoz, R.; Martinez-Nunez, B.; Miguelez-Fernandez, C.; Munoz, M.; Faya, M.

Title

  Children and adolescents with eating disorders during COVID-19 confinement: difficulties and future challenges. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

  European Eating Disorders Review; 2020. 28(6):864-870. 19 ref.

Publisher

  Wiley

Location of Publisher

  Chichester

Country of Publication

  UK

Abstract

  Objective: To present the adaptations to treatment protocols made in a child and adolescent eating disorders (ED) unit during the eight-week confinement period mandated in response to the COVID-19 pandemic and examine clinical and treatment variables in the outpatient, day hospital, and inpatient care programs. Method: Description of the implementation of a combined teletherapy program for outpatient and day-hospital patients and the adaptations made to the inpatient protocol. Retrospective review of

medical records and analysis of general and specific variables related to the pandemic and confinement. Results: We held 1,329 (73.10%) telehealth consultations and 489 (26.9%) face-to-face outpatient visits with 365 patients undergoing treatment in the outpatient clinic or day hospital. Twenty-eight (7.67%) were initial evaluations. Twenty-two patients were newly admitted and 68 ED-related emergencies were attended. Almost half of the children and adolescents studied experienced reactivation of ED symptoms despite treatment, and severe patients (25%) presented self-harm and suicide risk. Conclusions: The implementation of a combined teletherapy program has enabled continuity of care during confinement for children and adolescents with ED. Delivery of treatment to adolescents in the day hospital program posed the biggest challenge due to their greater degrees of severity and higher hospitalization rates. An adapted inpatient program should be maintained throughout confinement, as the need for hospitalization of children and adolescents with ED does not decrease with lockdown.

Publication Type

Journal article.

<368>

Accession Number

20203567978

Author

Baenas, I.; Caravaca-Sanz, E.; Granero, R.; Sanchez, I.; Riesco, N.; Testa, G.; Vintro-Alcaraz, C.; Treasure, J.; Jimenez-Murcia, S.; Fernandez-Aranda, F.

Title

COVID-19 and eating disorders during confinement: analysis of factors associated with resilience and aggravation of symptoms. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

European Eating Disorders Review; 2020. 28(6):855-863. 39 ref.

Publisher

Wiley

Location of Publisher

Chichester

Country of Publication

UK

Abstract

Objectives: To assess the level of deterioration in functioning of ED patients during confinement, due to COVID-19, and examine potential contributing factors (coping strategies, anxiety-depressive

symptomatology and personality traits). Methods: A total of 74 ED patients in treatment before the COVID-19 outbreak, contributed to this study. Baseline pre-treatment evaluation included the SCL-90R, TCI-R, EDI-2 and Y-FAS 2.0 questionnaires for general psychopathology, personality and ED severity indexes. ED symptoms, coping strategies, socio-demographic data and COVID-19 concerns were collected by clinicians through a semi-structured telephone survey during lockdown. Results: A deterioration in ED symptoms and general psychopathology (anxiety and depression), during lockdown, was associated with low self-directedness. Higher ED symptomatology during confinement was associated with less-adaptive coping strategies to deal with lockdown situation leading to an increase in weight. Conclusions: These specific vulnerability factors to further confinement or stressful situations may help design personalized preventive and therapeutic approaches.

Publication Type

  Journal article.

<369>

Accession Number

  20203567977

Author

  Schlegl, S.; Meule, A.; Favreau, M.; Voderholzer, U.

Title

  Bulimia nervosa in times of the COVID-19 pandemic-results from an online survey of former inpatients. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

  European Eating Disorders Review; 2020. 28(6):847-854. 19 ref.

Publisher

  Wiley

Location of Publisher

  Chichester

Country of Publication

  UK

Abstract

  Objective: The COVID-19 pandemic might pose special challenges to patients with eating disorders (EDs) by interfering with daily routines. The aim of this study was to investigate the impact of the current pandemic on patients with bulimia nervosa (BN). Methods: Fifty-five former inpatients with BN completed an online survey on psychological consequences of the COVID-19 pandemic as well as on changes in health

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care utilisation and on the use and helpfulness of different coping strategies. Results: Almost half of patients (49%) reported a deterioration of their ED symptomatology and 62% reported a reduced quality of life. The frequency of binge eating increased in 47% of patients and self-induced vomiting in 36%. Forty-six percent of patients stated a noticeable impairment of psychotherapy. Face-to-face psychotherapy decreased by 56% but videoconferencing therapy was only used by 22% of patients. Enjoyable activities, virtual social contacts with friends and mild physical activities were rated as the most helpful coping strategies among those most used. Discussion: Approximately one half to two-thirds of former inpatients with BN experienced a negative impact of the crisis on their ED symptomatology and quality of life. In challenging times when face-to-face therapy options are restricted, e-health treatments such as videoconferencing therapy should be considered to ensure continuity of care.

Publication Type

  Journal article.

<370>

Accession Number

  20203567976

Author

  Papandreou, C.; Arija, V.; Aretouli, E.; Tsilidis, K. K.; Bullo, M.

Title

  Comparing eating behaviours, and symptoms of depression and anxiety between Spain and Greece during the COVID-19 outbreak: cross-sectional analysis of two different confinement strategies. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

  European Eating Disorders Review; 2020. 28(6):836-846. 42 ref.

Publisher

  Wiley

Location of Publisher

  Chichester

Country of Publication

  UK

Abstract

  Objective: We compared eating behaviours, and depressive and anxiety symptoms in two countries with different confinement strictness strategies and different levels of COVID-19 pandemic. Method: A web-based cross-sectional survey was administered during and shortly after the COVID-19 related lockdown in

Spain and Greece. Multivariable linear regression analyses were performed to identify country differences associated with eating behaviour, and symptoms of depression and anxiety. Results: This study included 1,002 responders in Spain and 839 in Greece. The mean +or- SD of restraint, emotional and external eating was 2.5 +or- 0.79, 2.1 +or- 0.81 and 2.6 +or- 0.65 in Spain, whereas 2.7 +or- 0.85, 2.3 +or- 0.99 and 2.9 +or- 0.74 in Greece. Spanish participants had lower average scores of restraint and external eating compared to Greek participants (p < .001), but no difference was seen for emotional eating. In Spain, 13.6%, and 12.3% of the survey respondents reported moderate to severe depressive and anxiety symptoms, respectively, whereas in Greece the respective values were 18.8 and 13.2%. After adjusting for several risk factors, a higher prevalence of anxiety symptoms was observed in Spain compared to Greece (p = .001), but no difference was seen for depressive symptoms. Conclusions: This study demonstrated high scores of inappropriate eating behaviours and a high frequency of depressive and anxiety symptoms in two Mediterranean countries during the COVID-19 outbreak. Our findings revealed that compared to Greek participants, Spanish participants, that faced more severe COVID-19 pandemic and stricter lockdown measures, were associated with lower restraint and external eating and increased anxiety symptoms, but not with depressive symptoms or emotional eating.

Publication Type

  Journal article.

<371>

Accession Number

  20203567975

Author

  Bryan, D. C.; Macdonald, P.; Ambwani, S.; Cardi, V.; Rowlands, K.; Willmott, D.; Treasure, J.

Title

  Exploring the ways in which COVID-19 and lockdown has affected the lives of adult patients with anorexia nervosa and their carers. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

  European Eating Disorders Review; 2020. 28(6):826-835.

Publisher

  Wiley

Location of Publisher

  Chichester

Country of Publication

  UK

Abstract

Objective: This qualitative study explores the ways in which the coronavirus disease 2019 (COVID-19) pandemic and associated lockdown measures have affected the lives of adult patients with anorexia nervosa (AN) and their carers. Method: Semi-structured interviews were conducted with patients with AN (n = 21) and carers (n = 28) from the start of UK Government imposed lockdown. Data related directly to the impact of lockdown and COVID-19 were analysed using thematic analysis. Results: Four broad themes were identified for patients and carers separately. Patients experienced: 1. reduced access to eating disorder (ED) services; 2. disruption to routine and activities in the community; 3. heightened psychological distress and ED symptoms; 4. increased attempts at self-management in recovery. Carer themes included: 1. concern over provision of professional support for patients; 2. increased practical demands placed on carers in lockdown; 3. managing new challenges around patient wellbeing; 4. new opportunities. Conclusions: Reduced access to ED services, loss of routine and heightened anxieties and ED symptoms resulting from COVID-19 and lockdown measures presented challenges for patients and carers. Increased remote support by ED services enabled the continuation of treatment and self-management resources and strategies promoted self-efficacy in both groups.

Publication Type

Journal article.

<372>

Accession Number

20203567974

Author

Guo Lei; Wu MengTing; Zhu ZhuoYing; Zhang Lei; Peng SuFang; Li Wei; Chen Han; Fernandez-Aranda, F.; Chen Jue

Title

Effectiveness and influencing factors of online education for caregivers of patients with eating disorders during COVID-19 pandemic in China. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

European Eating Disorders Review; 2020. 28(6):816-825. 43 ref.

Publisher

Wiley

Location of Publisher

Chichester

Country of Publication

UK

Abstract

Objective: The goals were twofold: To estimate the depression and anxiety levels among caregivers of patients with eating disorders (ED) in China during the COVID-19 pandemic when compared with a control group, and to assess whether an online education program was effective in decreasing the anxiety and depression of the caregivers of patients with ED, and associated factors. Method: Caregivers of patients with ED (n = 254) and a comparison group of non-ED caregivers (N = 254) were recruited at baseline. Additionally, caregivers of patients with ED were invited into a free 4-week online education program, with an additional online group as support. Depression and anxiety levels were assessed at baseline and after the intervention. Results: Caregivers of patients with ED showed significantly higher levels of depression and anxiety than the comparison group of non-ED caregivers. The online education program showed no significant effect on decreasing depression and anxiety levels of caregivers of patients with ED overall. Caregivers who had older loved ones and not living with them were more likely to decrease their depression levels. Caregivers of patients with longer illness duration were less likely to decrease their anxiety levels. Discussion: These results showed that caregivers of ED patients suffered more serious psychological distress during the pandemic. A more structured and intensive online intervention with a limited number of participants might be required to address caregivers' distress in post-COVID-19 China.

Publication Type

Journal article.

<373>

Accession Number

20203567973

Author

Cornejo-Pareja, I. M.; Gomez-Perez, A. M.; Fernandez-Garcia, J. C.; Millan, R. B. S.; Luque, A. A.; Hollanda, A. de; Jimenez, A.; Jimenez-Murcia, S.; Munguia, L.; Ortega, E.; Fernandez-Aranda, F.; Real, J. M. F.; Tinahones, F.

Title

Coronavirus disease 2019 (COVID-19) and obesity. Impact of obesity and its main comorbidities in the evolution of the disease. (Special Section: Eating disorders during the COVID-19 pandemic.)

Source

European Eating Disorders Review; 2020. 28(6):799-815.

Publisher

Wiley

Location of Publisher

Chichester

Country of Publication

UK

Abstract

The COVID-19 pandemic is posing a great challenge worldwide. Its rapid progression has caused thousands of deaths worldwide. Although multiple aspects remain to be clarified, some risk factors associated with a worse prognosis have been identified. These include obesity and some of its main complications, such as diabetes and high blood pressure. Furthermore, although the possible long-term complications and psychological effects that may appear in survivors of COVID-19 are not well known yet, there is a concern that those complications may be greater in obese patients. In this manuscript, we review some of the data published so far and the main points that remain to be elucidated are emphasized.

Publication Type

Journal article.

<374>

Accession Number

20203567932

Author

Kalle Hirvonen

Title

Economic impacts of COVID-19 pandemic in Ethiopia: a review of phone survey evidence.

Source

ESSP Working Paper - Ethiopia Strategy Support Program; 2020. (151):ii + 12 pp. 45 ref.

Publisher

International Food Policy Research Institute (IFPRI)

Location of Publisher

Washington D.C.

Country of Publication

USA

Abstract

As in most low and middle-income countries, the paucity of timely economic data in Ethiopia makes it difficult to understand the economic impacts of the COVID-19 pandemic. To mitigate this, several organizations have launched phone surveys to gather more information about the crisis. This research report reviews the available phone survey evidence as of mid-August 2020 and identifies knowledge gaps. First, the available evidence suggest that the pandemic has not led to unusually large increases in food prices. However, a case study in the vegetable sector suggests that price dynamics are highly context and crop specific, calling for more comprehensive price monitoring to identify food value chains and areas

where food price increases may have been unusually rapid. Second, employment losses have concentrated on informal sector workers while redundancies in the formal sector have been less significant. Third, there is considerable uncertainty about the income, poverty, and food security implications of this crisis. While most households report income losses, the qualitative and subjective nature of these questions mean that the magnitudes of these losses are unknown. In Addis Ababa, less subjective food security measures indicate only small negative changes in household food and nutrition security. Finally, due to limited access to mobile phones in rural areas, we have imperfect and incomplete information on how this crisis is affecting rural households.

Publication Type

  Bulletin.

<375>

Accession Number

  20203567931

Author

  Brauw, A. de; Hirvonen, K.; Abate, G. T.

Title

  Food and nutrition security in Addis Ababa, Ethiopia during COVID-19 pandemic: July 2020 report.

Source

  ESSP Working Paper - Ethiopia Strategy Support Program; 2020. (148):iv + 26 pp. 37 ref.

Publisher

  International Food Policy Research Institute (IFPRI)

Location of Publisher

  Washington D.C.

Country of Publication

  USA

Abstract

  In early July 2020, we called by telephone a representative sample of nearly 600 households in Addis Ababa, Ethiopia to assess income changes and household food and nutrition security status during the COVID-19 pandemic (recall period covering June). This was the third administration of a COVID-19 related survey to these households, following surveys in early May 2020 and early June. About 64 percent of the households indicated in the third survey that their incomes were lower than expected (down from 67 percent reporting lower incomes than expected in previous month) and 42 percent reported that they are extremely stressed about the situation (down from 45 percent in previous month). Using a pre-pandemic

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wealth index, we find that less-wealthy households were considerably more likely to report income losses and high stress levels than were wealthier households. Compared to the period just before the pandemic (January and February 2020), indicators measuring food security have significantly worsened but during the pandemic they have remained relatively stable. Households now are less frequently consuming relatively more expensive but nutritionally richer foods, such as fruit and dairy products. However, overall food security status in Addis Ababa is not yet alarming and we see small signs of improvements in this July phone survey relative to previous months. However, many households have drawn down their savings over past months to buffer their food consumption. As the daily COVID-19 infection rates are still rising in Ethiopia, the food security situation in Addis Ababa may deteriorate over coming months, especially as the savings levels among the poorest households are now low. This calls for a further scale-up and strengthening of existing support programs.

Publication Type

Bulletin.

<376>

Accession Number

20203567793

Author

Leaune, E.; Samuel, M.; Oh, H.; Poulet, E.; Brunelin, J.

Title

Suicidal behaviors and ideation during emerging viral disease outbreaks before the COVID-19 pandemic: a systematic rapid review.

Source

Preventive Medicine; 2020. 141. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The current COVID-19 pandemic is the most severe pandemic of the 21st century, on track to having a rising death toll. Beyond causing respiratory distress, COVID-19 may also cause mortality by way of suicide. The pathways by which emerging viral disease outbreaks (EVDOs) and suicide are related are complex and

not entirely understood. We aimed to systematically review the evidence on the association between EVDOs and suicidal behaviors and/or ideation. An electronic search was conducted using five databases: Medline, Embase, Web of Science, PsycINFO and Scopus in April 2020. A rapid systematic review was carried out, which involved separately and independently extracting quantitative data of selected articles. The electronic search yielded 2480 articles, of which 9 met the inclusion criteria. Most of the data were collected in Hong Kong (n = 3) and the USA (n = 3). Four studies reported a slight but significant increase in deaths by suicide during EVDOs. The increase in deaths by suicide was mainly reported during the peak epidemic and in older adults. Psychosocial factors such as the fear of being infected by the virus or social isolation related to quarantine measures were the most prominent factors associated with deaths by suicide during EVDOs. Overall, we found scarce and weak evidence for an increased risk of deaths by suicide during EVDOs. Our results inform the need to orient public health policies toward suicide prevention strategies targeting the psychosocial effects of EVDOs. High-quality research on suicide risk and prevention are warranted during the current pandemic.

Publication Type

  Journal article.

<377>

Accession Number

  20203567324

Author

  Hughes, D. A.

Title

  Acute chloroquine poisoning: a comprehensive experimental toxicology assessment of the role of diazepam. (Special Issue: The pharmacology of COVID-19.)

Source

  British Journal of Pharmacology; 2020. 177(21):4975-4989. many ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

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Background and Purpose: Resurgence in the use of chloroquine as a potential treatment for COVID-19 has seen recent cases of fatal toxicity due to unintentional overdoses. Protocols for the management of poisoning recommend diazepam, although there are uncertainties in its pharmacology and efficacy in this context. The aim was to assess the effects of diazepam in experimental models of chloroquine cardiotoxicity. Experimental Approach: In vitro experiments involved cardiac tissues isolated from rats and incubated with chloroquine alone or in combination with diazepam. In vivo models of toxicity involved chloroquine administered intravenously to pentobarbitone-anaesthetised rats and rabbits. Randomised, controlled treatment studies in rats assessed diazepam, clonazepam and Ro5-4864 administered: (i) prior, (ii) during and (iii) after chloroquine and the effects of diazepam: (iv) at high dose, (v) in urethane-anaesthetised rats and (vi) co-administered with adrenaline. Key Results: Chloroquine decreased the developed tension of left atria, prolonged the effective refractory period of atria, ventricular tissue and right papillary muscles, and caused dose-dependent impairment of haemodynamic and electrocardiographic parameters. Cardiac arrhythmias indicated impairment of atrioventricular conduction. Studies (i), (ii) and (v) showed no differences between treatments and control. Diazepam increased heart rate in study (iv) and as with clonazepam also prolonged the QTc interval in study (iii). Combined administration of diazepam and adrenaline in study (vi) improved cardiac contractility but caused hypokalaemia. Conclusion and Implications: Neither diazepam nor other ligands for benzodiazepine binding sites protect against or attenuate chloroquine cardiotoxicity. However, diazepam may augment the effects of positive inotropes in reducing chloroquine cardiotoxicity.

Publication Type

 Journal article.

<378>

Accession Number

 20203567322

Author

 Esposito, G.; Pesce, M.; Seguella, L.; Sanseverino, W.; Lu Jie; Corpetti, C.; Sarnelli, G.

Title

 The potential of cannabidiol in the COVID-19 pandemic. (Special Issue: The pharmacology of COVID-19.)

Source

 British Journal of Pharmacology; 2020. 177(21):4967-4970. 19 ref.

Publisher

 Wiley

Location of Publisher

 Oxford

Country of Publication

UK

Abstract

Identifying drugs effective in the new coronavirus disease 2019 (COVID-19) is crucial, pending a vaccine against SARS-CoV2. We suggest the hypothesis that cannabidiol (CBD), a non-psychotropic phytocannabinoid, has the potential to limit the severity and progression of the disease for several reasons:- (a) High-cannabidiol Cannabis sativa extracts are able to down-regulate the expression of the two key receptors for SARS-CoV2 in several models of human epithelia, (b) cannabidiol exerts a wide range of immunomodulatory and anti-inflammatory effects and it can mitigate the uncontrolled cytokine production responsible for acute lung injury, (c) being a PPARP agonist, it can display a direct antiviral activity and (d) PPARP agonists are regulators of fibroblast/myofibroblast activation and can inhibit the development of pulmonary fibrosis, thus ameliorating lung function in recovered patients. We hope our hypothesis, corroborated by preclinical evidence, will inspire further targeted studies to test cannabidiol as a support drug against the COVID-19 pandemic.

Publication Type

Journal article.

<379>

Accession Number

20203567317

Author

Doboszewska, U.; Wlaz, P.; Nowak, G.; Mlyniec, K.

Title

Targeting zinc metalloenzymes in coronavirus disease 2019. (Special Issue: The pharmacology of COVID-19.)

Source

British Journal of Pharmacology; 2020. 177(21):4887-4898. many ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Several lines of evidence support a link between the essential element zinc and the coronavirus disease 2019 (COVID-19). An important fact is that zinc is present in proteins of humans and of viruses. Some zinc sites in viral enzymes may serve as drug targets and may liberate zinc ions, thus leading to changes in intracellular concentration of zinc ions, while increased intracellular zinc may induce biological effects in both the host and the virus. Drugs such as chloroquine may contribute to increased intracellular zinc. Moreover, clinical trials on the use of zinc alone or in addition to other drugs in the prophylaxis/treatment of COVID-19 are ongoing. Thereby, we aim to discuss the rationale for targeting zinc metalloenzymes as a new strategy for the treatment of COVID-19.

Publication Type

Journal article.

<380>

Accession Number

20203567314

Author

Cleary, S. J.; Pitchford, S. C.; Amison, R. T.; Carrington, R.; Cabrera, C. L. R.; Magnen, M.; Looney, M. R.; Gray, E.; Page, C. P.

Title

Animal models of mechanisms of SARS-CoV-2 infection and COVID-19 pathology. (Special Issue: The pharmacology of COVID-19.)

Source

British Journal of Pharmacology; 2020. 177(21):4851-4865. many ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The coronavirus disease 2019 (COVID-19) pandemic caused by SARS-CoV-2 infections has led to a substantial unmet need for treatments, many of which will require testing in appropriate animal models of this disease. Vaccine trials are already underway, but there remains an urgent need to find other therapeutic approaches to either target SARS-CoV-2 or the complications arising from viral infection, particularly the dysregulated immune response and systemic complications which have been associated

with progression to severe COVID-19. At the time of writing, in vivo studies of SARS-CoV-2 infection have been described using macaques, cats, ferrets, hamsters, and transgenic mice expressing human angiotensin I converting enzyme 2 (ACE2). These infection models have already been useful for studies of transmission and immunity, but to date only partly model the mechanisms involved in human severe COVID-19. There is therefore an urgent need for development of animal models for improved evaluation of efficacy of drugs identified as having potential in the treatment of severe COVID-19. These models need to reproduce the key mechanisms of COVID-19 severe acute respiratory distress syndrome and the immunopathology and systemic sequelae associated with this disease. Here, we review the current models of SARS-CoV-2 infection and COVID-19-related disease mechanisms and suggest ways in which animal models can be adapted to increase their usefulness in research into COVID-19 pathogenesis and for assessing potential treatments.

Publication Type

Journal article.

<381>

Accession Number

20203566952

Author

Fabiani, L.; Saroglia, M.; Galata, G.; Santis, R. de; Fillo, S.; Luca, V.; Faggioni, G.; D'Amore, N.; Regalbuto, E.; Salvatori, P.; Terova, G.; Moscone, D.; Lista, F.; Arduini, F.

Title

Magnetic beads combined with carbon black-based screen-printed electrodes for COVID-19: a reliable and miniaturized electrochemical immunosensor for SARS-CoV-2 detection in saliva.

Source

Biosensors & Bioelectronics; 2021. 171. 43 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The diffusion of novel SARS-CoV-2 coronavirus over the world generated COVID-19 pandemic event as reported by World Health Organization on March 2020. The huge issue is the high infectivity and the

absence of vaccine and customised drugs allowing for hard management of this outbreak, thus a rapid and on site analysis is a need to contain the spread of COVID-19. Herein, we developed an electrochemical immunoassay for rapid and smart detection of SARS-CoV-2 coronavirus in saliva. The electrochemical assay was conceived for Spike (S) protein or Nucleocapsid (N) protein detection using magnetic beads as support of immunological chain and secondary antibody with alkaline phosphatase as immunological label. The enzymatic by-product 1-naphtol was detected using screen-printed electrodes modified with carbon black nanomaterial. The analytical features of the electrochemical immunoassay were evaluated using the standard solution of S and N protein in buffer solution and untreated saliva with a detection limit equal to 19 ng/mL and 8 ng/mL in untreated saliva, respectively for S and N protein. Its effectiveness was assessed using cultured virus in biosafety level 3 and in saliva clinical samples comparing the data using the nasopharyngeal swab specimens tested with Real-Time PCR. The agreement of the data, the low detection limit achieved, the rapid analysis (30 min), the miniaturization, and portability of the instrument combined with the easiness to use and no-invasive sampling, confer to this analytical tool high potentiality for market entry as the first highly sensitive electrochemical immunoassay for SARS-CoV-2 detection in untreated saliva.

Publication Type

  Journal article.

<382>

Accession Number

  20203566836

Author

  Liu Chan; He Yu; Liu Lian; Li Fang; Shi Yuan

Title

  Children with COVID-19 behaving milder may challenge the public policies: a systematic review and meta-analysis.

Source

  BMC Pediatrics; 2020. 20(410):(1 September 2020). 60 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

Background: The emerging virus is rampaging globally. A growing number of pediatric infected cases have been reported. Great efforts are needed to cut down the transmission. Methods: A single-arm meta-analysis was conducted. We searched PubMed, Google Scholar, Web of Science, and several Chinese databases for studies presenting characteristics of children confirmed with Coronavirus Disease 2019 (COVID-19) from December 12, 2019 to May 10, 2020. Quality Appraisal of Case Series Studies Checklist was used to assess quality and publication bias was analyzed by Egger's test. Random-effect model was used to calculate the pooled incidence rate (IR) or mean difference (MD) with 95% confidence intervals (CI), or a fixed model instead when I2 < 50%. We conducted subgroup analysis according to geographic region. Additionally, we searched United Nations Educational Scientific and Cultural Organization to see how different countries act to the education disruption in COVID-19. Results: 29 studies with 4300 pediatric patients were included. The mean age was 7.04 (95% CI: 5.06-9.08) years old. 18.9% of children were asymptomatic (95% CI: 0.121-0.266), 37.4% (95% CI: 0.280-0.474) had no radiographic abnormalities. Besides, a proportion of 0.1% patients were admitted to intensive care units (0, 95% CI: 0.000-0.013) and four deaths were reported (0, 95% CI: 0.000-0.000). Up to 159 countries have implemented nationwide school closures, affecting over 70% of the world's students. Conclusion: Children were also susceptible to SARS-CoV-2, while critical cases or deaths were rare. Characterized by mild presentation, the dilemma that children may become a potential spreader in the pandemic, while strict managements like prolonged school closures, may undermine their well-beings. Thus, the public policies are facing challenge.

Publication Type

  Journal article.

<383>

Accession Number

  20203566828

Author

  Odeh, R.; Gharaibeh, L.; Daher, A.; Kussad, S.; Alassaf, A.

Title

  Caring for a child with type 1 diabetes during COVID-19 lockdown in a developing country: challenges and parents' perspectives on the use of telemedicine.

Source

  Diabetes Research and Clinical Practice; 2020. 168. 25 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

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UK

Abstract

   Background and Aim: Jordan implemented abrupt and extreme lockdown measures to prevent the spread of COVID-19. This study aims to evaluate the effect of these measures on paediatric patients with type 1 diabetes in terms of acute metabolic complications and shortages in insulin and glucose measuring supplies. It also evaluates the caregivers' perceptions of the use of telemedicine during the lockdown. Methods: This is a questionnaire-based cross-sectional study. It was completed using Google forms and patients/caregivers were asked to consent if they agreed to answer. Results: 235 patients/families participated in the study. The mean age of the patients was 10.8 years +or- 3.9 years (N = 229). Twenty-four children (10.2%) needed to visit the emergency department during the lockdown period which lasted for 10 weeks. Of these, eight (3.4%) were hospitalized due to acute metabolic complications. Families (58.3%) faced insulin shortages and 14% had to ration insulin, i.e., decrease the dose, during the lockdown. Glucose monitoring strips were rationed by 43.4% of families leading to more frequent low/high glucose readings in 75.5% of children of these families. Telemedicine using phones and social media applications was utilized for communication with healthcare professionals and continuing medical care. Most of the participants (85.5%) described it as a smooth and positive experience. Conclusions: The extreme lockdown due to COVID-19 pandemic caused insulin and glucose measuring equipment shortages in children with diabetes in Jordan. However, the use of telemedicine for providing guidance and support was perceived positively by the families.

Publication Type

   Journal article.

<384>

Accession Number

   20203566637

Author

   Infante, M.; Ricordi, C.; Fabbri, A.

Title

   Antihyperglycemic properties of hydroxychloroquine in patients with diabetes: risks and benefits at the time of COVID-19 pandemic.

Source

   Journal of Diabetes; 2020. 12(9):659-667. 86 ref.

Publisher

   Wiley

Location of Publisher

   Shanghai

Country of Publication

China

Abstract

The antimalarial drug hydroxychloroquine (HCQ) has long been used as a disease-modifying antirheumatic drug for the treatment of several inflammatory rheumatic diseases. Over the last three decades, various studies have shown that HCQ also plays a role in the regulation of glucose homeostasis. Although the mechanisms of action underlying the glucose-lowering properties of HCQ are still not entirely clear, evidence suggests that this drug may exert multifaceted effects on glucose regulation, including improvement of insulin sensitivity, increase of insulin secretion, reduction of hepatic insulin clearance, and reduction of systemic inflammation. Preliminary studies have shown the safety and efficacy of HCQ (at a dose ranging from 400 to 600 mg/day) in patients with type 2 diabetes over a short-term period. In 2014, HCQ has been approved in India as an add-on hypoglycemic agent for patients with uncontrolled type 2 diabetes. However, large randomized controlled trials are needed to establish the safety and efficacy profile of HCQ in patients with type 2 diabetes over a long-term period. With regard to the COVID-19 pandemic, several medications (including HCQ) have been used as off-label drugs because of the lack of proven effective therapies. However, emerging evidence shows limited benefit from HCQ use in COVID-19 in general. The aim of this manuscript is to comprehensively summarize the current knowledge on the antihyperglycemic properties of HCQ and to critically evaluate the potential risks and benefits related to HCQ use in patients with diabetes, even in light of the current pandemic scenario.

Publication Type

Journal article.

<385>

Accession Number

20203566511

Author

Bodas, M.; Peleg, K.

Title

Income assurances are a crucial factor in determining public compliance with self-isolation regulations during the COVID-19 outbreak - cohort study in Israel.

Source

Israel Journal of Health Policy Research; 2020. 9(54):(20 October 2020). 40 ref.

Publisher

BioMed Central Ltd

Location of Publisher

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London

Country of Publication

UK

Abstract

Background: The outbreak of a new Coronavirus disease (COVID-19) poses dramatic challenges to public health authorities worldwide. One measure put in place to contain the spread of the disease is self-quarantine of individuals who may have been exposed to the disease. While officials expect the public to comply with such regulation, studies suggest that a major obstacle to compliance for self-quarantine is concern over loss of income or employment due to the prolonged absence from work. Methods: A cohort study of the adult population of Israel was conducted in two time points during the COVID-19 outbreak, the last week of February and the third week of March 2020, in order to assess public attitudes. In particular, public compliance rates to self-quarantine with and without State-sponsored compensation for lost wages were assessed. Results: The results suggest that public attitudes changed as the threat increased, making people more compliant with regulations. In February 2020, compliance rate for self-quarantine dropped from 94% to less than 57% when monetary compensation for lost wages was removed; however, in March 2020 this drop became more moderate (from 96 to 71%). The multivariate logistic regression revealed that older, non-Jewish, worried over COVID-19, and trusting the Ministry of Health were more likely than their counterparts to comply with self-isolation, even when monetary compensation was not assumed. Conclusions: Despite the effects of threat on people's obedience with regulations, this study demonstrates that providing people with assurances about their livelihood during absence from work remains an important component in compliance with public health regulations.

Publication Type

Journal article.

<386>

Accession Number

20203566501

Author

Lidoriki, I.; Frountzas, M.; Schizas, D.

Title

Could nutritional and functional status serve as prognostic factors for COVID-19 in the elderly?

Source

Medical Hypotheses; 2020. 144.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Geriatric patients seem to be the most vulnerable group in COVID-19. These patients are usually characterized by impaired mobilization and malnutrition. In addition, obesity has been correlated with increased mortality rates after COVID-19 infection, highlighting the role of nutrition in prognosis of COVID-19 as well. In the past, several indices of nutritional status (GNRI) and functional status (ECOG performance status, Barthel Index, Handgrip Strength) have demonstrated a prognostic ability for hospitalized patients with influenza-like respiratory infections from coronavirus, metapneumovirus, parainfluenza and rhinovirus. Our hypothesis suggests that the previously mentioned nutritional and functional status indices, combined with the pneumonia severity index (CRB-65), could be useful in prognosis of morbidity and mortality of the elderly after the novel COVID-19 infection. Our hypothesis, is the first in the literature, which suggests a prognostic association between nutritional status of patients and COVID-19 infection, offering a quick and low-cost prognostic tool for COVID-19 in the elderly.

Publication Type

Journal article.

<387>

Accession Number

20203566448

Author

Tarek Kashour; Tleyjeh, I. M.

Title

It is time to drop hydroxychloroquine from our COVID-19 armamentarium.

Source

Medical Hypotheses; 2020. 144. 52 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

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UK

Abstract

Chloroquine (CQ) and hydroxychloroquine (HCQ) were among the first drugs repurposed for the treatment of SARS-CoV-2 infection. A few in vitro studies confirmed that both drugs exhibited dose dependent anti-SARS-CoV-2 activities. These observations and the encouraging results from early poorly conducted observational studies created a major hype about the therapeutic potential of these drugs in the treatment of COVID-19 disease. This was further catalyzed by media and political influences leading to a widespread use of these agents. Subsequent randomized trials revealed lack of efficacy of these agents in improving the outcomes of COVID-19 or in preventing infection in post-exposure prophylaxis studies. Nevertheless, many ongoing trials continue to actively recruit tens of thousands of patients to receive HCQ worldwide. In this perspective, we address the possible mechanisms behind the lack of efficacy and the increased risk of cardiac toxicity of HCQ in COVID-19 disease. For the lack of efficacy, we discuss the fundamental differences of treatment initiation between in vitro and in vivo studies, the pitfalls of the pharmacological calculations of effective blood drug concentrations and related dosing regimens, and the possible negative effect of HCQ on the antiviral type-I interferon response. Although it has been repeatedly claimed that HCQ has a longstanding safety track record for many decades in use, we present counterarguments for this contention due to disease-drug and drug-drug interactions. We discuss the molecular mechanisms and the cumulative epidemiological evidence of HCQ cardiac toxicity.

Publication Type

Journal article.

<388>

Accession Number

20203566435

Author

Reyes, M. S. S.; Medina, P. M. B.

Title

Environmental pollutant exposure can exacerbate COVID-19 neurologic symptoms.

Source

Medical Hypotheses; 2020. 144. 44 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

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Abstract

Neurologic symptoms have been reported in some COVID-19 patients. However, little is known on what factors influence the risk of developing these symptoms. While some studies suggest that exposure to pollution is associated with higher rates of SARS-CoV-2 infection, its role is unknown in the development of neurologic symptoms in COVID-19 patients. The response of the central nervous system (CNS) to a SARS-CoV-2 infection may be influenced by its inflammatory state. Interestingly, environmental pollutants such as particulate matter may have neuroinflammatory effects, providing a possible link between exposure to these pollutants and the outcome of SARS-CoV-2 infection in the CNS. This article explores the hypothesis that the neurologic symptoms in COVID-19 may be exacerbated through a neuroinflammatory mechanism that is promoted by environmental pollutant exposure.

Publication Type

Journal article.

<389>

Accession Number

20203566428

Author

Garcia, N. H.; Porta, D. J.; Alasino, R. V.; Munoz, S. E.; Beltramo, D. M.

Title

Ibuprofen, a traditional drug that may impact the course of COVID-19 new effective formulation in nebulizable solution.

Source

Medical Hypotheses; 2020. 144. 26 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The traditional formulation of ibuprofen is poorly soluble in water, so the administered dose must be 10 times higher than the dose required for a therapeutic effect. The development of a hydrosoluble form of

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ibuprofen can be a strategy to reach a high concentration in the lungs by using modern inhalation devices. Therefore, the development of an inhalable formulation with high bioavailability in the lungs was the leitmotiv of our investigation. The hypertonic ibuprofen solution to be nebulized (NIH) presents great relevant characteristics: bactericidal, virucidal, mucolytic and has a known anti-inflammatory property. Bactericidal and virucidal effects are related to the physico-chemical properties of Na-ibuprofenate as an amphipathic molecule. It has the capability to insert into the bilayer membranes destabilizing the structure, altering its biological properties and avoiding the duplication or infection. Our preliminary results indicate that the presence of this high ionic strength solution reduces 10 times the amount of ibuprofen necessary to kill bacteria, but also the time to kill 1x106 bacteria, from 4 h (in its absence) to only three minutes (in its presence). That was observed using Pseudomona aeruginosa, methicillin-resistant Staphylococcus aureus and Burkholderia cepacia. Also, "in vitro" ibuprofen demonstrated virucidal activity against the so-called enveloped virus, a family that includes coronavirus strain (2019-nCoV). We observed too, the markedly reduced local inflammation in the airways after administering NIH lays on its ability to inhibit the enzyme cyclooxygenase and to markedly diminish reactive oxygen species (ROS). Other investigators also showed the importance of actin in the rapid spread of virus infection. Furthermore, reorganization of the actin filaments is a key step in lung inflammation induced by systemic inflammatory responses caused by SARS-CoV-2. These findings suggest that the interaction between actin proteins and S1 is involved in the 2019-nCoV infection and pathogenesis. Consequently, the possibility of interfering in this interaction could represent a valid hypothesis for the development of promising therapeutic and prevention strategies. In conclusion, we consider that treating people with COVID-19 with NIH may be beneficial and an opportunity to contribute for the current global health emergency.

Publication Type

  Journal article.

<390>

Accession Number

  20203566426

Author

  Dipankar Bhattacharyya

Title

  Reposition of montelukast either alone or in combination with levocetirizine against SARS-CoV-2.

Source

  Medical Hypotheses; 2020. 144. 19 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

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Country of Publication

UK

Abstract

It has been hypothesised that antiallergic medications (AAMs) like montelukast and levocetirizine both the two bitter chloro compounds could be repurposed either alone or combinedly as an antiviral against SARS-CoV-2, like chloroquine/hydroxychloroquine (CQ/HCQ), another two bitter chloro compounds. Both AAMs and CQ/HCQ are bitter tasted chloro compounds. Depending on their these two similar physical properties and the safety and efficacy of AAMs by controlling over post viral episodes as comparing with viral inhibitory activities including SARS-CoV-2 by CQ/HCQ, a reposition of AAMs either alone/combinedly could be rationalised as an antiviral approach to nCoV.

Publication Type

Correspondence.

<391>

Accession Number

20203566421

Author

Raciti, L.; Calabro, R. S.

Title

Can volcanic trace elements facilitate COVID-19 diffusion? A hypothesis stemming from the Mount Etna area, Sicily.

Source

Medical Hypotheses; 2020. 144.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In December 2019, severe cases of pneumonia of unknown aetiology were reported in Wuhan city, in China. Lately, the pneumonia was related to the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), and the diseases was termed coronavirus disease-2019 (COVID-19). At the end of January 2020, the

infection spread all over Italy, but with high infection rates and mortality in the northern part, especially in Lombardy, the most industrialized and polluted region of the country. It is noteworthy that a strong association between severe viral respiratory disease and air pollution has been described. Air pollutant could be solid particles, liquid droplets, or gases and can be of natural origin (such as ash from a volcanic eruption) or released from motor vehicle depletes (carbon monoxide gas) or factories (sulfur dioxide). Volcanic eruptions release large amounts of sulphuric acid, hydrogen sulfide, and hydrochloric acid into the atmosphere. Pulmunary diseases spread by means of small droplets in the breath, also called aerosols, and air pollution may facilitate the outside survival of viruses. We suppose that ash and gases emitted from the Mount Etna contributed to air pollution, potentially favouring the major contagion of COVID-19 in the eastern flank of the mountain, as in Catania city. In fact, ash and gases (with regard to radon) are usually particularly intense in winter, with a reduction of emission of specific metals with warmer weather. This is the first paper that elaborates the hypothesis of a potential role of volcanic gases and heavy metals-related air pollution, combined to specific climatic conditions and regional topography, in favouring severe COVID-19 diffusion in Sicily. Clinical and epidemiological studies are needed to support the hypothesis and plan the due prevention and awareness-raising campaigns.

Publication Type

  Journal article.

<392>

Accession Number

  20203566363

Author

  Faiq, M. A.

Title

  B-cell engineering: a promising approach towards vaccine development for COVID-19.

Source

  Medical Hypotheses; 2020. 144.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

With the number of cases crossing six million (and more than three hundred and seventy thousand deaths) worldwide, there is a dire need of a vaccine (and repurposing of drugs) for SARS-CoV-2 disease (COVID-19). It can be argued that a vaccine may be the most efficient way to contain the spread of this disease and prevent its future onset. While many attempts are being made to design and develop a vaccine for SARS-CoV-2, pertinent technological hitches do exist. That is perhaps one of the reasons that we don't have vaccine for coronaviruses (including SARS-CoV-1 and MERS). Recently developed CRISPR-mediated genome editing approach can be repurposed into a cell-modification endeavor in addition to (and rather than) correcting defective parts of genome. With this premise, B-cells can be engineered into universal donor, antigen specific, perpetually viable, long lasting, non-oncogenic, relatively benign, antibody producing cells which may serve as an effective vaccine for SARS-CoV-2 and, by the same rationale, other viruses and pathogens.

Publication Type

Journal article.

<393>

Accession Number

20203565643

Author

Panaitescu, M.; Renea, P.

Title

Change management in tourism in the context of the COVID 19 pandemic.

Source

Lucrari Stiintifice - Universitatea de Stiinte Agricole si Medicina Veterinara, Seria Zootehnie; 2020. 74:156-161. 10 ref.

Publisher

Universitatea de Stiinte Agricole si Medicina Veterinara "Ion Ionescu de la Brad" Iasi

Location of Publisher

Iasi

Country of Publication

Romania

Abstract

Tourism is an important sector with an impact on the development of a country's economy. The main benefits of tourism are generation of income and creation of jobs. For many countries it is the most important source of well-being. The dizzyingly rapid spread of COVID-19 infections has caused Romania to

face a crisis situation for the management of which it is striving to find solutions. The impact of the crisis is strongly felt both in terms of the capacity of economic agents to manage human resources, but also in terms of trade relations with business partners. The situation we are in, but especially the one we want to reach, requires urgent and radical measures. The main objectives of the managers must be: removing tourism from its critical state and resetting the entire hospitality industry, positioning itself on other coordinates, taking into account global trends in the field and considering the successful international models and local specificities. One of the unexpected effects of this pandemic is that organizations have acknowledged the benefits of digital transformation. Given the long-term coexistence with some restrictions, companies are more inclined to analyze their processes and procedures and rethink their operations, so that remote work becomes the new mode of operation.

Publication Type

  Journal article.

<394>

Accession Number

  20203565395

Author

  Campos, M. R.; Schramm, J. M. de A.; Emmerick, I. C. M.; Rodrigues, J. M.; Avelar, F. G. de; Pimentel, T. G.

Title

  Burden of disease from COVID-19 and its acute and chronic complications: reflections on measurement (DALYs) and prospects for the Brazilian Unified National Health System. [Portuguese]

Source

  Cadernos de Saude Publica; 2020. 36(11). 89 ref.

Publisher

  Escola Nacional de Saude Publica

Location of Publisher

  Rio de Janeiro

Country of Publication

  Brazil

Abstract

  COVID-19 is an acute infectious respiratory distress syndrome (ARDS) caused by the novel coronavirus SARS-CoV-2. The disease is highly communicable and produces mild to severe symptoms, generating a high demand for intensive care and thousands of deaths. In March 2020, COVID-19 was declared a pandemic and has already surpassed five million cases and 300,000 deaths in the world. The natural history of the

disease has still not been fully established, hindering the elaboration of effective clinical protocols and preventive measures. Nevertheless, the disease requires a systemic approach, since there is evidence of acute and chronic complications, in addition to the catastrophic effects on the population's mental health. This highlights the need for a methodology that more effectively captures the effect of COVID-19, considering such aspects as severity, duration, and the potential to generate chronic complications that will increase the demands on Brazilian Unified National Health System (SUS). DALYs, or disability-adjusted life years, are thus an extremely useful indictor that adds mortality, an estimate of years of life lost (YLLs), and morbidity, an estimate of years of life lived with disability (YLDs). This article discusses the relevance and difficulties of studying the burden of COVID-19 and its complications in the Brazilian context, highlighting the natural history of the disease and estimating indicators such as YLDs, considering the high burden of disease in planning strategies to deal with the consequences of COVID-19 after the pandemic. The article also discusses the future challenges to deal with the disease in the SUS and the effects on the calculation of DALYs.

Publication Type

  Journal article.

<395>

Accession Number

  20203564939

Author

  Pendola, G. L.; Elizalde, R.; Sitic Vargas, P.; Caicedo Mallarino, J.; Gonzalez, E.; Parada, J.; Camus, M.; Schwartz, R.; Bargallo, E.; Freitas, R.; Costa, M. M.; Oliveira, V. M. de; Escobar, P.; Oller, M.; Viana, L. F.; Jurado Bambino, A.; Sarria, G.; Terrier, F.; Corrales, R.; Sanabria, V.; Rodriguez Agostini, J. C.; Vargas Chacon, G.; Perez, V. M.; Aviles, V.; Galarreta, J.; Lavina, G.; Perez Fuentes, J.; Bueso Castellanos, L. de; Arboleda Osorio, B.; Castillo, H.; Figueroa, C.

Title

  Management of non-invasive tumours, benign tumours and breast cancer during the COVID-19 pandemic: recommendations based on a Latin American survey.

Source

  ecancermedicalscience; 2020. 14(1115). 29 ref.

Publisher

  ecancer Global Foundation

Location of Publisher

  Bristol

Country of Publication

  UK

Abstract

  Introduction: The COVID-19 pandemic has changed health systems across the world, both in general hospitals and in oncology institutes or centres. For cancer specialists, particularly breast cancer (BC), the COVID-19 pandemic represents a combination of challenges since the hospital resources and staff have become more limited; this has obliged oncology specialists to seek a consensus and establish which patients with BC require more urgent attention and which patients can wait until there is a better control of this pandemic. The health system in Latin America has some special characteristics; in some of the countries, there are shortages which limit access to several specialities (surgery, clinical oncology and radiotherapy) in some regions. Background: After a systematic review of the most recent literature regarding the management of BC during the COVID-19 pandemic, the main objective is to understand the position of the different Latin American Societies of Mastology in terms of available alternatives for the treatment of BC. Methods: After carrying out a comprehensive and exhaustive search of the most recent guides on the management of BC during the COVID-19 pandemic, the board members of the Latin American Federation of Mastology invited, via email, different specialists, all experts in BC care, to complete an anonymous survey online. The survey was distributed between 30 and 10 May 2020. The survey included 27 questions on four topics: demographic information, consultations, imaging and treatment of BC. The questionnaire was sent and then distributed to various health specialists including breast surgeons, clinical oncologists, radiation oncologists and radiologists via the Presidents of the different Latin American Societies of Mastology in 18 countries. The results are summarised as tallies based on the number of responses to each question. Results: A total of 499 responses were received. The majority of the respondents were males (275 (55.11%)); 290 participants were over 45 years (58.11%). The questionnaire presented those surveyed with three possible answers (agree, disagree and neither agree nor disagree). The results reflect that there was consensus in the majority of situations presented. Only seven questions revealed disagreement among those responding. The results are presented as recommendations. Conclusion: The management of patients with BC presents unique challenges during the current world health situation produced by COVID-19 pandemic. Breast care specialists (surgical oncologists, breast care clinicians, clinical oncologists, radiation oncologists and radiologists) from 18 countries in Central and South America submitted through their responses and recommendations for the treatment of BC during the COVID-19 pandemic.

Publication Type

  Journal article.

<396>

Accession Number

  20203564894

Author

  Benfield, R. W.

Title

  The effect of the coronavirus on garden tourism.

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Source

  New directions in garden tourism; 2021. 169-180.

Publisher

  CABI

Location of Publisher

  Wallingford

Country of Publication

  UK

Abstract

  This chapter is essentially a postscript written as the effects of COVID-19 changed, so dramatically, the nature of garden operation and visitation. Much of the impact is drawn from the American Public Gardens Association (APGA) surveys of its member gardens in March (the immediate effects) and April 2020 (the results of the closure on revenue, staffing, and programs). In the final paragraphs the measures being taken to permit a (partial) reopening and the effects of the partial opening are examined. A case study is presented of Longwood Gardens, Kennett Square, Pennsylvania, USA, after COVID-19.

Publication Type

  Book chapter.

<397>

Accession Number

  20203564807

Author

  Alhazzani, W.; Moller, M. H.; Arabi, Y. M.; Loeb, M.; Gong, M. N.; Fan, E.; Oczkowski, S.; Levy, M. M.; Derde, L.; Dzierba, A.; Du Bin; Aboodi, M.; Wunsch, H.; Cecconi, M.; Koh, Y.; Chertow, D. S.; Maitland, K.; Alshamsi, F.; Belley-Cote, E.; Greco, M.; Laundy, M.; Morgan, J. S.; Kesecioglu, J.; McGeer, A.; Mermel, L.; Mammen, M. J.; Alexander, P. E.; Arrington, A.; Centofanti, J. E.; Citerio, G.; Baw, B.; Memish, Z. A.; Hammond, N.; Hayden, F. G.; Evans, L.; Rhodes, A.

Title

  Surviving sepsis campaign: guidelines on the management of critically ill adults with coronavirus disease 2019 (COVID-19).

Source

  Intensive Care Medicine; 2020. 46(5):854-887. 222 ref.

Publisher

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393

Springer Berlin

Location of Publisher

Heidelberg

Country of Publication

Germany

Abstract

Background: The novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the cause of a rapidly spreading illness, Coronavirus Disease 2019 (COVID-19), affecting thousands of people around the world. Urgent guidance for clinicians caring for the sickest of these patients is needed. Methods: We formed a panel of 36 experts from 12 countries. All panel members completed the World Health Organization conflict of interest disclosure form. The panel proposed 53 questions that are relevant to the management of COVID-19 in the ICU. We searched the literature for direct and indirect evidence on the management of COVID-19 in critically ill patients in the ICU. We identified relevant and recent systematic reviews on most questions relating to supportive care. We assessed the certainty in the evidence using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach, then generated recommendations based on the balance between benefit and harm, resource and cost implications, equity, and feasibility. Recommendations were either strong or weak, or in the form of best practice recommendations. Results: The Surviving Sepsis Campaign COVID-19 panel issued 54 statements, of which 4 are best practice statements, 9 are strong recommendations, and 35 are weak recommendations. No recommendation was provided for 6 questions. The topics were: (1) infection control, (2) laboratory diagnosis and specimens, (3) hemodynamic support, (4) ventilatory support, and (5) COVID-19 therapy. Conclusion: The Surviving Sepsis Campaign COVID-19 panel issued several recommendations to help support healthcare workers caring for critically ill ICU patients with COVID-19. When available, we will provide new recommendations in further releases of these guidelines.

Publication Type

Journal article.

<398>

Accession Number

20203564741

Author

Nicola, M. di; Dattoli, L.; Moccia, L.; Pepe, M.; Janiri, D.; Fiorillo, A.; Janiri, L.; Sani, G.

Title

Serum 25-hydroxyvitamin D levels and psychological distress symptoms in patients with affective disorders during the COVID-19 pandemic.

Source

Psychoneuroendocrinology; 2020. 122. 35 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background. The COVID-19 pandemic has given rise to stress worldwide, especially in vulnerable people like those suffering from mental illness. This study aims to investigate the psychological distress perceived by a cohort of patients with Major Depressive Disorder (MDD) or Bipolar Disorder (BD) after a seven-week period of lockdown measures, and to analyze serum 25-hydroxyvitamin D [25(OH)D] levels as a potential predictor of distress severity. Methods. Fifty-nine remitted MDD and fifty-three euthymic BD patients were enrolled. An online dedicated survey was administered to obtain lockdown-related information and to evaluate COVID-19 related distress by using the Kessler 10 Psychological Distress Scale (K10). Patients' medical records were reviewed to collect sociodemographic and clinical data, including serum 25(OH)D levels dosed in the three months preceding the outbreak. A multivariate general linear model was adopted to test the effect of factors of interest on psychological distress. Results. In our sample (n = 112), 29 subjects (25.9%) reported no likelihood of psychological distress, whereas 35 (31.2%) and 48 (42.9%) displayed mild and moderate-to-severe likelihood of psychological distress, respectively. Low serum 25(OH)D levels (p = 0.005) and MDD diagnosis (p = 0.001) specifically predicted the severity of psychological distress. Living alone during the lockdown, a longer duration of illness, and smoking habits were more frequently detected in subjects with COVID-19 related distress. Conclusions. Low serum 25(OH)D levels and MDD diagnosis predicted an increased vulnerability to the stressful impact of the COVID-19 outbreak. Our results suggest that vitamin D may represent a biological factor mediating the psychological response to stress in individuals with affective disorders and provide further insight into tailoring intervention strategies.

Publication Type

Journal article.

<399>

Accession Number

20203564465

Author

Mayurasakorn, K.; Pinsawas, B.; Mongkolsucharitkul, P.; Sranacharoenpong, K.; Damapong, S. N.

Title

School closure, COVID-19 and lunch programme: unprecedented undernutrition crisis in low-middle income countries.

Source

Journal of Paediatrics and Child Health; 2020. 56(7):1013-1017. 34 ref.

Publisher

Wiley

Location of Publisher

Melbourne

Country of Publication

Australia

Abstract

The coronavirus disease 2019 pandemic has affected nearly 70% of children and teenagers around the world due to school closure policies. School closure is implemented widely in order to prevent viral transmission and its impact on the broader community, based on preliminary recommendations and evidence from influenza. However, there is debate with regard to the effectiveness of school closures. Growing evidence suggests that a child's SARS-CoV-2 infection is often mild or asymptomatic and that children may not be major SARS-CoV-2 transmitters; thus, it is questionable if school closures prevent transmission significantly. This question is important as a majority of children in low-and middle-income countries depend on free school meals; unexpected long-term school closure may adversely impact nutrition and educational outcomes. Food insecurity is expected to be higher during the pandemic. In this viewpoint, we argue for a more thorough exploration of potential adverse impacts of school closures in low-and middle-income countries and recommend actions to ensure that the health and learning needs of vulnerable populations are met in this time of crisis.

Publication Type

Journal article.

<400>

Accession Number

20203564455

Author

Hao SiYuan; Ning Kang; Kuz, C. A.; Vorhies, K.; Yan ZiYing; Qiu JianMing

Title

Long-term modeling of SARS-CoV-2 infection of in vitro cultured polarized human airway epithelium.

Source

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Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) replicates throughout human airways. The polarized human airway epithelium (HAE) cultured at an airway-liquid interface (HAE-ALI) is an in vitro model mimicking the in vivo human mucociliary airway epithelium and supports the replication of SARS-CoV-2. Prior studies characterized only short-period SARS-CoV-2 infection in HAE. In this study, continuously monitoring the SARS-CoV-2 infection in HAE-ALI cultures for a long period of up to 51 days revealed that SARS-CoV-2 infection was long lasting with recurrent replication peaks appearing between an interval of approximately 7 to 10 days, which was consistent in all the tested HAE-ALI cultures derived from 4 lung bronchi of independent donors. We also identified that SARS-CoV-2 does not infect HAE from the basolateral side, and the dominant SARS-CoV-2 permissive epithelial cells are ciliated cells and goblet cells, whereas virus replication in basal cells and club cells was not detected. Notably, virus infection immediately damaged the HAE, which is demonstrated by dispersed zonula occludens-1 (ZO-1) expression without clear tight junctions and partial loss of cilia. Importantly, we identified that SARS-CoV-2 productive infection of HAE requires a high viral load of >2.5 x 105 virions per cm2 of epithelium. Thus, our studies highlight the importance of a high viral load and that epithelial renewal initiates and maintains a recurrent infection of HAE with SARS-CoV-2. IMPORTANCE: The pandemic of coronavirus disease 2019 (COVID-19), which is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has led to >35 million confirmed cases and >1 million fatalities worldwide. SARS-CoV-2 mainly replicates in human airway epithelia in COVID-19 patients. In this study, we used in vitro cultures of polarized human bronchial airway epithelium to model SARS-CoV-2 replication for a period of 21 to 51 days. We discovered that in vitro airway epithelial cultures endure a long-lasting SARS-CoV-2 propagation with recurrent peaks of progeny virus release at an interval of approximately 7 to 10 days. Our study also revealed that SARS-CoV-2 infection causes airway epithelia damage with disruption of tight junction function and loss of cilia. Importantly, SARS-CoV-2 exhibits a polarity of infection in airway epithelium only from the apical membrane; it infects ciliated and goblet cells but not basal and club cells. Furthermore, the productive infection of SARS-CoV-2 requires a high viral load of over 2.5 x 105 virions per cm2 of epithelium. Our study highlights that the proliferation of airway basal cells and regeneration of airway epithelium may contribute to the recurrent infections.

Publication Type

Journal article.

<401>

Accession Number

20203564397

Author

Heidari, M.; Mirniaharikandehei, S.; Khuzani, A. Z.; Danala, G.; Qiu YuChen; Zheng Bin

Title

Improving the performance of CNN to predict the likelihood of COVID-19 using chest X-ray images with preprocessing algorithms.

Source

International Journal of Medical Informatics; 2020. 144. 31 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Objective: This study aims to develop and test a new computer-aided diagnosis (CAD) scheme of chest X-ray images to detect coronavirus (COVID-19) infected pneumonia. Method: CAD scheme first applies two image preprocessing steps to remove the majority of diaphragm regions, process the original image using a histogram equalization algorithm, and a bilateral low-pass filter. Then, the original image and two filtered images are used to form a pseudo color image. This image is fed into three input channels of a transfer learning-based convolutional neural network (CNN) model to classify chest X-ray images into 3 classes of COVID-19 infected pneumonia, other community-acquired no-COVID-19 infected pneumonia, and normal (non-pneumonia) cases. To build and test the CNN model, a publicly available dataset involving 8474 chest X-ray images is used, which includes 415, 5179 and 2,880 cases in three classes, respectively. Dataset is randomly divided into 3 subsets namely, training, validation, and testing with respect to the same frequency of cases in each class to train and test the CNN model. Results: The CNN-based CAD scheme yields an overall accuracy of 94.5% (2404/2544) with a 95% confidence interval of [0.93,0.96] in classifying 3 classes. CAD also yields 98.4% sensitivity (124/126) and 98.0% specificity (2371/2418) in classifying cases with and without COVID-19 infection. However, without using two preprocessing steps, CAD yields a lower classification accuracy of 88.0% (2239/2544). Conclusion: This study demonstrates that adding two image preprocessing steps and generating a pseudo color image plays an important role in developing a deep learning CAD scheme of chest X-ray images to improve accuracy in detecting COVID-19 infected pneumonia.

Publication Type

Journal article.

<402>

Accession Number

  20203564394

Author

  Meng, L.; Ma, B.; Cheng, Y.; Bian, Z.

Title

  Epidemiological investigation of OHCWs with COVID-19.

Source

  Journal of Dental Research; 2020. 99(13):1444-1452. 38 ref.

Publisher

  International and American Associations for Dental Research

Location of Publisher

  Alexandria

Country of Publication

  USA

Abstract

  During the coronavirus disease 2019 (COVID-19) pandemic, there is an important risk of infection in health care workers, including oral health care workers (OHCWs), due to the characteristics of dental practice. In this retrospective study, data pertaining to the 31 OHCWs diagnosed with COVID-19 in Wuhan, Hubei Province, were retrieved and analyzed. Questionnaires were administered to the subjects over the Internet and telephone. Clinical and epidemiological characteristics and information on the use of personal protective equipment (PPE) were collected. There were 22 females and 9 males, with a median age of 39 y. Although the severity of most cases of COVID-19 (93.5%) was mild or moderate, 1 case was severe, and another case was critical, resulting in death. Fever was the main first symptom of COVID-19, followed by fatigue and myalgia. Most of the OHCWs routinely used PPE such as medical masks, gloves, caps, and work clothes while performing clinical work. N95 or KN95 masks were rarely available because of the scarcity of PPE during the outbreak. Nineteen OHCWs reported a contact history, among whom 7 worked in a fever clinic, 5 reported contact with dental patients suspected of having COVID-19, and 7 reported contact with family members with COVID-19-related symptoms at least 1 d earlier. Our findings indicated that there were few clusters of COVID-19 in dental settings. Since the outbreak, the Hospital of Stomatology, Wuhan University, has provided emergency dental treatment, and none of their staff were infected while providing dental service, which indicates that comprehensive measures such as the use of advanced PPE and environmental disinfection can prevent cross-infection in dental practice. The analysis of the procedures followed during the emergency treatments indicated that OHCWs preferred to recommend conservative treatment to patients, suggesting that attention should be paid to the psychological impact of COVID-19 on dental practitioners.

Publication Type

  Journal article.

<403>

Accession Number

  20203564359

Author

  Forni, D.; Cagliani, R.; Sironi, M.

Title

  Recombination and positive selection differentially shaped the diversity of Betacoronavirus subgenera.

Source

  Viruses; 2020. 12(11). 49 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The Betacoronavirus genus of mammal-infecting viruses includes three subgenera (Sarbecovirus, Embecovirus, and Merbecovirus), in which most known human coronaviruses, including SARS-CoV-2, cluster. Coronaviruses are prone to host shifts, with recombination and positive selection possibly contributing to their high zoonotic potential. We analyzed the role of these two forces in the evolution of viruses belonging to the Betacoronavirus genus. The results showed that recombination has been pervasive during sarbecovirus evolution, and it is more widespread in this subgenus compared to the other two. In both sarbecoviruses and merbecoviruses, recombination hotspots are clearly observed. Conversely, positive selection was a less prominent force in sarbecoviruses compared to embecoviruses and merbecoviruses and targeted distinct genomic regions in the three subgenera, with S being the major target in sarbecoviruses alone. Overall, the results herein indicate that Betacoronavirus subgenera evolved along different trajectories, which might recapitulate their host preferences or reflect the origins of the presently available coronavirus sequences.

Publication Type

  Journal article.

<404>

Accession Number

  20203564331

Author

  Choi YoonJung; Shin BongGun; Kang KeunSoo; Park SungSoo; Beck BoRam

Title

  Target-centered drug repurposing predictions of human angiotensin-converting enzyme 2 (ACE2) and transmembrane protease serine subtype 2 (TMPRSS2) interacting approved drugs for coronavirus disease 2019 (COVID-19) treatment through a drug-target interaction deep learning model.

Source

  Viruses; 2020. 12(11). 44 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Previously, our group predicted commercially available Food and Drug Administration (FDA) approved drugs that can inhibit each step of the replication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) using a deep learning-based drug-target interaction model called Molecule Transformer-Drug Target Interaction (MT-DTI). Unfortunately, additional clinically significant treatment options since the approval of remdesivir are scarce. To overcome the current coronavirus disease 2019 (COVID-19) more efficiently, a treatment strategy that controls not only SARS-CoV-2 replication but also the host entry step should be considered. In this study, we used MT-DTI to predict FDA approved drugs that may have strong affinities for the angiotensin-converting enzyme 2 (ACE2) receptor and the transmembrane protease serine 2 (TMPRSS2) which are essential for viral entry to the host cell. Of the 460 drugs with Kd of less than 100 nM for the ACE2 receptor, 17 drugs overlapped with drugs that inhibit the interaction of ACE2 and SARS-CoV-2 spike reported in the NCATS OpenData portal. Among them, enalaprilat, an ACE inhibitor, showed a Kd value of 1.5 nM against the ACE2. Furthermore, three of the top 30 drugs with strong affinity prediction for the TMPRSS2 are anti-hepatitis C virus (HCV) drugs, including ombitasvir, daclatasvir, and paritaprevir. Notably, of the top 30 drugs, AT1R blocker eprosartan and neuropsychiatric drug lisuride showed similar gene expression profiles to potential TMPRSS2 inhibitors. Collectively, we suggest that drugs predicted to have strong inhibitory potencies to ACE2 and TMPRSS2 through the DTI model should be considered as potential drug repurposing candidates for COVID-19.

Publication Type

  Journal article.

<405>

Accession Number

  20203563692

Author

  Hao Fei; Xiao Qu; Chon KaYe

Title

  COVID-19 and China's hotel industry: impacts, a disaster management framework, and post-pandemic agenda.

Source

  International Journal of Hospitality Management; 2020. 90. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  This exploratory study reviews the overall impacts of coronavirus disease 2019 (COVID-19) pandemic on China's hotel industry. A COVID-19 management framework is proposed to address the anti-pandemic phases, principles, and strategies. This study also suggests that COVID-19 will significantly and permanently affect four major aspects of China's hotel industry-multi-business and multi-channels, product design and investment preference, digital and intelligent transformation, and market reshuffle.

Publication Type

  Journal article.

<406>

Accession Number

  20203563591

Author

Sadjadian, P.; Wille, K.; Griesshammer, M.

Title

Ruxolitinib-associated infections in polycythemia vera: review of the literature, clinical significance, and recommendations.

Source

Cancers; 2020. 12(11). 74 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Ruxolitinib (RUX), a JAK1/JAK2 inhibitor, is approved for second-line therapy in patients with polycythemia vera (PV) who are resistant or intolerant to hydroxyurea. Due to the immunomodulatory and immunosuppressive effect of RUX, there is an increased susceptibility to infections. However, an increased risk of infection is inherent to even untreated myeloproliferative neoplasms (MPN). To obtain more information on the clinical significance of RUX-associated infections in PV, we reviewed the available literature. There is no evidence-based approach to managing infection risks. Most data on RUX-associated infections are available for MF. In all studies, the infection rates in the RUX and control groups were fairly similar, with the exception of infections with the varicella zoster virus (VZV). However, individual cases of bilateral toxoplasmosis retinitis, disseminated molluscum contagiosum, or a mycobacterium tuberculosis infection or a hepatitis B reactivation are reported. A careful assessment of the risk of infection for PV patients is required at the initial presentation and before the start of RUX. Screening for hepatitis B is recommended in all patients. The risk of RUX-associated infections is lower with PV than with MF, but compared to a normal population there is an increased risk of VZV infection. However, primary VZV prophylaxis for PV patients is not recommended, while secondary prophylaxis can be considered individually. As early treatment is most effective for VZV, patients should be properly informed and trained to seek medical advice immediately if cutaneous signs of VZV develop. Vaccination against influenza, herpes zoster, and pneumococci should be considered in all PV patients at risk of infection, especially if RUX treatment is planned. Current recommendations do not support adjusting or discontinuing JAK inhibition in MPN patients to reduce the risk of COVID-19.

Publication Type

Journal article.

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<407>

Accession Number

20203563500

Author

Ting, F. I.; Mendoza, M. J.; Sacdalan, D. B.; Abarquez, H. S.; Uson, A. J.

Title

Updated general recommendations in cancer management during the COVID-19 pandemic in the Philippines.

Source

ecancermedicalscience; 2020. 14(1128). 59 ref.

Publisher

ecancer Global Foundation

Location of Publisher

Bristol

Country of Publication

UK

Abstract

In May 2020, the Philippine Society of Medical Oncology published its initial recommendations on the treatment of cancer patients during the SARS-Cov-2 pandemic. The objective of this update is to provide answers to the questions pertaining to the diagnostic testing of SARS-CoV-2 for both cancer patients and healthcare professionals caring for cancer patients, as well as the recommended protective measures and practices that may be instituted in healthcare facilities.

Publication Type

Journal article.

<408>

Accession Number

20203563322

Author

Xu XinLiang; Wang ShihAo; Dong JinHui; Shen ZhiCheng; Xu ShuWan

Title

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An analysis of the domestic resumption of social production and life under the COVID-19 epidemic.

Source

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

Population migration and urban traffic are two important aspects of the socioeconomic system. We analyze the trends of social production and resumption of life after the coronavirus disease 2019 (COVID-19)-influenced Spring Festival in 2020 with statistics on reported cases of COVID-19 from China's National Health Commission and big data from Baidu Migration (a platform collecting population migration data). We find that (1) the distribution of COVID-19 cases throughout mainland China has a specific spatial pattern. Provinces in eastern China have more reported cases than those in western China, and provinces adjacent to Hubei have more confirmed COVID-19 cases than nonadjacent provinces. Densely populated regions with well-developed economies and transportation are more likely to have cluster infection incidents. (2) The COVID-19 epidemic severely impacts the return of the migrant population in the Spring Festival travel rush, as demonstrated by the significant reduction in the return scale, along with the extended timespan and uncertainty regarding the end of the travel rush. Among 33 provinces, special administrative regions, autonomous regions and municipalities, 23 of them (approximately 70%) have a return rate below 60%. Hubei, Hong Kong, Xinjiang, and Inner Mongolia have the lowest return rates (below 5%), whereas the return rates in Hainan and Shandong, 272.72% and 97.35%, respectively, indicate the best trend of resumption. Due to government regulations, the population return in densely populated and well-developed regions shows a positive trend. (3) The resumption of urban traffic is slow and varies greatly in different regions. The urban traffic conditions in 22 provinces and municipalities have a more than 60% level of resumption. Guizhou and Yunnan have the highest level of resumption of urban traffic, whereas Xinjiang, Hubei, and Heilongjiang have the lowest (29.37%, 35.76%, and 37.90%, respectively). However, provinces and municipalities with well-developed intercity traffic have a lower level of resumption, mainly because of regulatory methods such as lockdowns and traffic restrictions. The increased public awareness of epidemic prevention and the decreased frequency of outdoor activities are also two positive factors slowing the spread of the epidemic. (4) Time will be necessary to fully resume social production and life throughout China. Xining and Jinan have the highest levels of resumption, 82.14% and 71.51%, respectively. Urumqi and Wuhan are the cities with the lowest levels of resumption, only 0.11% and 0.61%, respectively. Currently, 12 of 33 provinces and municipalities have levels of resumption of more than 80%; among them, Guizhou, Yunnan, and Gansu have with the highest levels of resumption and have nearly resumed the 2019 levels of work and life, whereas Xinjiang and Hubei have the lowest resumption rates, only 0.09% and 7.57%, respectively. Thus, relevant government departments should focus more on densely populated and well-developed provinces and cities when applying epidemic prevention and work resumption methods. We reveal the general conditions of the epidemic and the population return scale across China, along with urban traffic conditions and the resumption of social production and life under COVID-19, providing a scientific basis for local governments to make further decisions on work resumption.

Publication Type

Journal article.

<409>

Accession Number

  20203563206

Author

  Daoust, J. F.

Title

  Elderly people and responses to COVID-19 in 27 countries.

Source

  PLoS ONE; 2020. 15(7). 22 ref.

Publisher

  Public Library of Sciences (PLoS)

Location of Publisher

  San Francisco

Country of Publication

  USA

Abstract

  Amongst the most robust consensus related to the COVID-19 disease is that the elderly are by far the most vulnerable population group. Hence, public authorities target older people in order to convince them to comply with preventive measures. However, we still know little about older people's attitudes and compliance toward these measures. In this research, I aim to improve our understanding of elderly people's responses to the pandemic using data from 27 countries. Results are surprising and quite troubling. Elderly people's response is substantially similar to their fellow citizens in their 50's and 60's. This research (i) provides the first thorough description of the most vulnerable population's attitudes and compliance in a comparative perspective (ii) suggest that governments' strategies toward elderly people are far from successful and (iii) shows that methodologically, we should be more cautious in treating age as having a linear effect on COVID-19 related outcomes.

Publication Type

  Journal article.

<410>

Accession Number

  20203562691

Author

  Tayech, A.; Mejri, M. A.; Makhlouf, I.; Mathlouthi, A.; Behm, D. G.; Chaouachi, A.

Title

  Second wave of COVID-19 global pandemic and athletes' confinement: recommendations to better manage and optimize the modified lifestyle.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(22). 83 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Coronavirus 2019 (COVID-19) is an infectious viral disease that has spread globally, resulting in the ongoing pandemic. Currently, there is no vaccine or specific treatment for COVID-19. Preventive measures to reduce the chances of contagion consist mainly of confinement, avoiding crowded places, social distancing, masks, and applying strict personal hygiene as recommended by the World Health Organization (WHO). After the first wave of infection in many countries, the potential effects of relaxing containment and physical distancing control measures suggest that as a result of these measures, a second wave of COVID-19 appears probable in these countries. In sport, the period of self-isolation, and quarantine, for COVID-19 affects the physical preparation of athletes as well as their mental health and quality of life to an even greater extent (i.e., nutrition, sleep, healthy lifestyle), and thus, relevant and practical recommendations are needed to help alleviate these physical and mental health concerns. Our review aims to summarize the physiological and psychological effects of detraining associated with athletes' confinement during the proposed second wave of COVID-19. This article also proposes answers to questions that concern the advantages and disadvantages of different types of social media platforms, the importance of nutrition, and the effects of sleep disturbance on the health and modified lifestyle of athletes during this worldwide pandemic. Thus, this review provides some general guidelines to better manage their modified lifestyle and optimally maintain their physical and mental fitness with respect to measures taken during this restrictive proposed second wave of the COVID-19 confinement period.

Publication Type

  Journal article.

<411>

Accession Number

  20203562634

Author

  Chutiphimon, H.; Thipsunate, A.; Cherdchim, A.; Boonyaphak, B.; Vithayasirikul, P.; Choothong, P.; Vichathai, S.; Ngamchaliew, P.; Vichitkunakorn, P.

Title

  Effectiveness of innovation media for improving physical distancing compliance during the COVID-19 pandemic: a quasi-experiment in Thailand.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(22). 17 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  To flatten the curve of COVID-19 infections, with no effective pharmacological interventions or vaccine available in the imminent future, public health responses must continue to rely on non-pharmacological interventions. We developed three innovation media to promote physical distancing compliance (i.e., a fearful picture, a red one-way arrow sign, and a norm-speech sticker). This study aimed to compare physical distancing compliance between our interventions and conventional interventions. Our study was a quasi-experiment, and we observed a representative sample of university canteen customers via closed-circuit television (CCTV). Each intervention was monitored over non-prime-time hours, per day, on 6-9 August 2020. Among the 400 participants (100 participants in each group), their age group, gender, and physical distancing practices were observed in a university canteen. The number of failures of physical distancing ranged between 93.8% and 17.6%, and on average between 84.2% and 34.2%, dependent on the intervention and the marking point. There were no statistically significant differences in promoting physical distancing compliance between our interventions compared with conventional interventions. However, the participants tended to practice physical distancing at the back of the queue more than at the front, regardless of the interventions.

Publication Type

  Journal article.

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<412>

Accession Number

  20203562626

Author

  Teotonio, I.; Hecht, M.; Castro, L. C.; Gandolfi, L.; Pratesi, R.; Nakano, E. Y.; Zandonadi, R. P.; Pratesi, C. B.

Title

  Repercussion of COVID-19 pandemic on Brazilians' quality of life: a nationwide cross-sectional study.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(22). 35 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The COVID-19 outbreak, caused by Sars-Cov-2, was officially declared a global pandemic in February 2020, after an unexpected increase in hospitalization and mortality. When faced with this new disease, social and physical distancing and quarantine emerged as solutions to reduce virus transmission. This article examines the quality of life (QoL) of the Brazilian population's during this period of isolation, due to the COVID-19 pandemic by analyzing; physical, psychological, social, and economic aspects. An online survey was distributed from 27 May to 14 August of 2020. A total of 1859 surveys were completed. Our results indicate that Brazilians were more affected by economic and social aspects than psychological and physical. Unemployed participants and individuals who tested positive for COVID-19 presented the lowest QoL. Females showed worst QoL scores than males, but having children did not influence the score. Higher educational level was associated with a better perception of QoL. Not following social distancing guidelines presented better scores in the psychological domain than the ones following restrict or partial social distancing rules. This study is the first to evaluate adults' QoL related to the Sars-Cov-2 pandemic in Brazil at a national level. Our data may help health authorities identify the main factors affecting the QoL of the Brazilian population, thereby orientating them to recover after the pandemic.

Publication Type

  Journal article.

<413>

Accession Number

  20203562622

Author

  Zhou WeiKe; Wang AiLi; Wang Xia; Cheke, R. A.; Xiao YanNi; Tang SanYi

Title

  Impact of hospital bed shortages on the containment of COVID-19 in Wuhan.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(22). 31 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The global outbreak of COVID-19 has caused worrying concern amongst the public and health authorities. The first and foremost problem that many countries face during the outbreak is a shortage of medical resources. In order to investigate the impact of a shortage of hospital beds on the COVID-19 outbreak, we formulated a piecewise smooth model for describing the limitation of hospital beds. We parameterized the model while using data on the cumulative numbers of confirmed cases, recovered cases, and deaths in Wuhan city from 10 January to 12 April 2020. The results showed that, even with strong prevention and control measures in Wuhan, slowing down the supply rate, reducing the maximum capacity, and delaying the supply time of hospital beds all aggravated the outbreak severity by magnifying the cumulative numbers of confirmed cases and deaths, lengthening the end time of the pandemic, enlarging the value of the effective reproduction number during the outbreak, and postponing the time when the threshold value was reduced to 1. Our results demonstrated that establishment of the Huoshenshan, Leishenshan, and Fangcang shelter hospitals avoided 22,786 people from being infected and saved 6524 lives. Furthermore, the intervention of supplying hospital beds avoided infections in 362,360 people and saved the lives of 274,591 persons. This confirmed that the quick establishment of the Huoshenshan, Leishenshan Hospitals, and Fangcang shelter hospitals, and the designation of other hospitals for COVID-19 patients played important roles in containing the outbreak in Wuhan.

Publication Type

  Journal article.

<414>

Accession Number

  20203562550

Author

  Demarie, S.; Galvani, C.; Billat, V. L.

Title

  Horse-riding competitions pre and post COVID-19: effect of anxiety, sRPE and HR on performance in eventing.

Source

  International Journal of Environmental Research and Public Health; 2020. 17(22). 28 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The aim of the present study was to quantify the impact of training restrictions, due to COVID-19 sanitary emergency, on physical and emotional strain of horse-riding Eventing competitions before and after eight weeks of lockdown. Performance was assessed by the penalty points attained, anxiety by the Competitive State Anxiety Inventory-2, strain by the Rating of Perceived Exertion (RPE) method. Moreover, Heart Rate was continuously monitored for fifty-four female national level Eventing horse-riders. Lockdown decreased performance outcome of horse-riders in Eventing competitions up to six weeks, with the Dressage test being the most affected discipline. Performance in Dressage was strongly related to both anxiety and session-RPE. After lockdown, Show-Jumping and Cross-Country courses were shorter allowing RPE to remain stable, session-RPE to significantly decline and cardiovascular strain not to exceed pre-lockdown values. In conclusion, emotional stress in Dressage and workload in Cross-Country should be carefully managed by equestrian Eventing stakeholders when planning training and competitions after a period of lockdown. Moreover, sRPE appears to offer a practical method of monitoring riders load during training and competition and could also be of use for home-based training during any future sport activities restrictions.

Publication Type

  Journal article.

<415>

Accession Number

  20203561848

Author

  Greer, F.; Rakas, J.; Horvath, A.

Title

  Airports and environmental sustainability: a comprehensive review.

Source

  Environmental Research Letters; 2020. 15(10). many ref.

Publisher

  IOP Publishing Ltd

Location of Publisher

  Bristol

Country of Publication

  UK

Abstract

  Over 2500 airports worldwide provide critical infrastructure that supports 4 billion annual passengers. To meet changes in capacity and post-COVID-19 passenger processing, airport infrastructure such as terminal buildings, airfields, and ground service equipment require substantial upgrades. Aviation accounts for 2.5% of global greenhouse gas (GHG) emissions, but that estimate excludes airport construction and operation. Metrics that assess an airport's sustainability, in addition to environmental impacts that are sometimes unaccounted for (e.g. water consumption), are necessary for a more complete environmental accounting of the entire aviation sector. This review synthesizes the current state of environmental sustainability metrics and methods (e.g. life-cycle assessment, Scope GHG emissions) for airports as identified in 108 peer-reviewed journal articles and technical reports. Articles are grouped according to six categories (Energy and Atmosphere, Comfort and Health, Water and Wastewater, Site and Habitat, Material and Resources, Multidimensional) of an existing airport sustainability assessment framework. A case study application of the framework is evaluated for its efficacy in yielding performance objectives. Research interest in airport environmental sustainability is steadily increasing, but there is ample need for more systematic assessment that accounts for a variety of emissions and regional variation. Prominent research themes include analyzing the GHG emissions from airfield pavements and energy management strategies for airport buildings. Research on water conservation, climate change resilience, and waste management is more limited, indicating that airport environmental accounting requires more analysis. A disconnect exists between research efforts and practices implemented by airports. Effective practices such as sourcing low-emission electricity and electrifying ground transportation and gate equipment can in the short term aid airports in moving towards sustainability goals. Future research must emphasize stakeholder involvement, life-cycle assessment, linking environmental impacts with operational outcomes, and global challenges (e.g. resilience, climate change adaptation, mitigation of infectious diseases).

Publication Type

  Journal article.

<416>

Accession Number

  20203561297

Author

  Bahamondes, L.; Laporte, M.; Margatho, D.; Amorim, H. S. F. de; Brasil, C.; Charles, C. M.; Becerra, A.; Hidalgo, M. M.

Title

  Maternal health among Venezuelan women migrants at the border of Brazil.

Source

  BMC Public Health; 2020. 20(1771):(23 November 2020). 38 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: Guaranteeing the sexual and reproductive health and rights (SRHR) of populations living in fragile and humanitarian settings is essential and constitutes a basic human right. Compounded by the inherent vulnerabilities of women in crises, substantial complications are directly associated with increased risks of poor SRHR outcomes for displaced populations. The migration of Venezuelans, displaced due to current economic circumstances, is one of the largest in Latin America's history. This study aims to provide an overview of the sexual and reproductive health (SRH) issues affecting migrant Venezuelan women in the state of Roraima, Brazil. Methods: Face-to-face interviews were conducted from 24 to 30 November 2019. Data collection covered various issues involving access to and use of SRH services by 405 migrant Venezuelan women aged 18-49 years. The Minimum Initial Service Package readiness assessment tools, available from the Inter-Agency Working Group on Reproductive Health in Crises, were used in the data collection. Results: Most commonly, the women reported unmet family planning needs. Of these, a significant proportion reported being unable to obtain contraceptive methods, particularly long-acting reversible contraceptives, either due to the woman's inability to access them or their unavailability at healthcare centres. Although a significant proportion of women were largely satisfied with the attention received at the maternity hospital, both before and during childbirth, 24.0% of pregnant or postpartum women failed to receive any prenatal or postnatal care. Conclusion: Meeting the essential SRHR needs of migrant Venezuelan women in Roraima, Brazil is a challenge that has yet to be fully addressed. Given the size of this migrant population, the Brazilian healthcare system has failed to adapt sufficiently to meet their

needs; however, problems with healthcare provision are similar for migrants and Brazilian citizens. Efforts need to be encouraged not only in governmental health sectors, but also with academic, non-governmental and international organisations, including a coordinated approach to ensure a comprehensive SRHR response. Given the current high risks associated with the SARS-CoV-2 pandemic, meeting the SRHR needs of migrant populations has become more critical than ever.

Publication Type

  Journal article.

<417>

Accession Number

  20203561276

Author

  Kimura, T.; Namkoong Ho

Title

  Susceptibility of the obese population to COVID-19.

Source

  International Journal of Infectious Diseases; 2020. 101:380-381. 19 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Obesity is a risk factor for disease severity in individuals with coronavirus disease (COVID-19). However, the increased susceptibility of this population to COVID-19 is unclear. We outline several underlying mechanisms that may explain the relationship between obesity and COVID-19 severity. Obesity has an adverse effect on respiratory physiology because increased intra-abdominal adipose tissue can interfere with lung expansion, resulting in reduced lung compliance. Further, fat accumulation in the soft tissue of the pharynx can increase inspiratory resistance, and obesity may be associated with sleep apnea. Obesity is associated with several defects in cell-mediated immunity, including increased levels of pro-inflammatory cytokines. Impaired adipocyte-mediated immune function results in chronically high leptin levels, low adiponectin levels, and anti-inflammatory adipokines. Reduced physical activity can impair several steps of the immune response to viruses. Obesity also promotes a hypercoagulable state, leading to severe

consequences. These factors may synergistically play a role in promoting the severity of the disease in obese individuals. A better understanding of the mechanisms by which obesity contributes to the severity of COVID-19 is important for developing more effective treatments.

Publication Type

  Journal article.

<418>

Accession Number

  20203560116

Author

  Park SeYoon; Kim Bongyoung; Jung DongSik; Jung SookIn; Oh WonSup; Kim ShinWoo; Peck KyongRan; Chang HyunHa

Title

  Psychological distress among infectious disease physicians during the response to the COVID-19 outbreak in the Republic of Korea.

Source

  BMC Public Health; 2020. 20(1811):(27 November 2020). 19 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: This study aimed to investigate psychological distress among infectious disease (ID) physicians during the coronavirus disease 2019 (COVID-19) outbreak in the Republic of Korea. Methods: Using an online-based survey link sent via text message and email, we conducted a survey from April 21 to 25, 2020, targeting all ID physicians currently working in ID (n = 265). The questionnaire was based on the Maslach Burnout Inventory-Human Services Survey and the Depression, Anxiety, and Stress Scales, and information was collected on factors protecting against psychological distress and difficulties in relation to COVID-19. Results: Of 265 ID physicians, 115 (43.3%) responded, showing burnout (97, 90.4%), depression (20, 17.4%), anxiety (23, 20.0%), and stress (5, 4.3%). There were no differences in terms of distress between ID physicians who were directly involved in the care of patients with COVID-19 or not. Greater than 50% of physicians valued their work and felt recognized by others, whereas < 10% indicated that

sufficient human and financial support and private time had been provided during the outbreak. The most challenging issues concerned a lack of attending physicians caring for COVID-19 patients or infection control practitioners, a shortage of personal protective equipment or airborne infection isolation rooms, pressure for research, and lack of guidelines for COVID-19 management. Conclusions: During the COVID-19 outbreak in the Republic of Korea, most respondents reported psychological distress. Preparing strategies to secure human resources are crucial to prepare effectively for future epidemics and pandemics.

Publication Type

Journal article.

<419>

Accession Number

20203555302

Author

Luo XiBei; Ling RuiJie; Ding YaXing; Wang YiYing

Title

Evaluation of measures for prevention and control of health care-associated infections in Wuhan Jiang'an Shelter Hospital during the outbreak of coronavirus disease-19. [Chinese]

Source

Chinese Journal of Viral Diseases; 2020. 10(4):284-288. 13 ref.

Publisher

Publishing House of Chinese Journal of Viral Diseases

Location of Publisher

Beijing

Country of Publication

China

Abstract

Objective: To evaluate the effectiveness of infection prevention and control measures for Wuhan Jiang'an Shelter Hospital during the outbreak of coronavirus disease-19 (COVID-19). Methods: The infection prevention and control measures was standardized and formatted for the Wuhan Shelter Hospital to evaluate the occupational exposure, result of training assessment, and sterilization's effect in the aspect of structural layout, work procedure, personnel training, personal protection and disinfection. Results: There were 746 staffs in Wuhan Jiang'an Shelter Hospital, and medical personnel's incidence of occupational exposure maintained in low level(1 case) and no non-medical personnel was infected. After the training on nosocomial infection prevention and control procedures and related regulation, the average score of

theoretical knowledge assessment of the staff increased from(70.36+or-10.59) points to(91.37+or-3.58) points, with statistically significant difference(u=2.21, P < 0.05). The average score of practical skills test increased from 68.23+or-14.11 points to 94.33+or-2.41 points(u = 2.99, P < 0.05). The natural bacteria killing rate of all samples before and after disinfection on the surface of the object and indoor air was >90%. Environmental hygiene and disinfection monitoring results were qualified. Conclusions: Well-designed structural layout of the Shelter Hospital is efficient in epidemic prevention. Adequate management and behavioral training for employees can greatly reduce the risks of occupational exposure.

Publication Type

Journal article.

<420>

Accession Number

20203554770

Author

Mercola, J.; Grant, W. B.; Wagner, C. L.

Title

Evidence regarding vitamin D and risk of COVID-19 and its severity.

Source

Nutrients; 2020. 12(11). 155 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Vitamin D deficiency co-exists in patients with COVID-19. At this time, dark skin color, increased age, the presence of pre-existing illnesses and vitamin D deficiency are features of severe COVID disease. Of these, only vitamin D deficiency is modifiable. Through its interactions with a multitude of cells, vitamin D may have several ways to reduce the risk of acute respiratory tract infections and COVID-19: reducing the survival and replication of viruses, reducing risk of inflammatory cytokine production, increasing angiotensin-converting enzyme 2 concentrations, and maintaining endothelial integrity. Fourteen observational studies offer evidence that serum 25-hydroxyvitamin D concentrations are inversely correlated with the incidence or severity of COVID-19. The evidence to date generally satisfies Hill's criteria

for causality in a biological system, namely, strength of association, consistency, temporality, biological gradient, plausibility (e.g., mechanisms), and coherence, although experimental verification is lacking. Thus, the evidence seems strong enough that people and physicians can use or recommend vitamin D supplements to prevent or treat COVID-19 in light of their safety and wide therapeutic window. In view of public health policy, however, results of large-scale vitamin D randomized controlled trials are required and are currently in progress.

Publication Type

Journal article.

<421>

Accession Number

20203554102

Author

Hajjo, R.; Tropsha, A.

Title

A systems biology workflow for drug and vaccine repurposing: identifying small-molecule BCG mimics to reduce or prevent COVID-19 mortality.

Source

Pharmaceutical Research; 2020. 37(11). 100 ref.

Publisher

Springer

Location of Publisher

New York

Country of Publication

USA

Abstract

Purpose: Coronavirus disease 2019 (COVID-19) is expected to continue to cause worldwide fatalities until the World population develops 'herd immunity', or until a vaccine is developed and used as a prevention. Meanwhile, there is an urgent need to identify alternative means of antiviral defense. Bacillus Calmette-Guerin (BCG) vaccine that has been recognized for its off-target beneficial effects on the immune system can be exploited to boast immunity and protect from emerging novel viruses. Methods: We developed and employed a systems biology workflow capable of identifying small-molecule antiviral drugs and vaccines that can boast immunity and affect a wide variety of viral disease pathways to protect from the fatal consequences of emerging viruses. Results: Our analysis demonstrates that BCG vaccine affects the

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production and maturation of naive T cells resulting in enhanced, long-lasting trained innate immune responses that can provide protection against novel viruses. We have identified small-molecule BCG mimics, including antiviral drugs such as raltegravir and lopinavir as high confidence hits. Strikingly, our top hits emetine and lopinavir were independently validated by recent experimental findings that these compounds inhibit the growth of SARS-CoV-2 in vitro. Conclusions: Our results provide systems biology support for using BCG and small-molecule BCG mimics as putative vaccine and drug candidates against emergent viruses including SARS-CoV-2.

Publication Type

Journal article.

<422>

Accession Number

20203553016

Author

Shen, W. T.; Sosa, J. A.

Title

Gratitude and good outcomes: rediscovering positivity and perspective in an uncertain time.

Source

World Journal of Surgery; 2020. 44(9):2848-2849. 3 ref.

Publisher

Springer

Location of Publisher

New York

Country of Publication

USA

Abstract

Numerous studies have demonstrated the benefits of expressing gratitude as a means for coping with stress and hardship [3]. The first part of UCSF "G and G" Rounds is devoted to expressing thanks. In this inaugural session, the study asked 3 UCSF caregivers on the front lines of the current pandemic to share their experiences and reflections. The 3 speakers included a physician from the Emergency Department, an ICU Nurse, and one of our own Trauma and Critical Care surgeons who spent two weeks serving as a volunteer physician in a COVID-19 hospital in New York City. The inclusion of team members from outside of surgery was a primary goal; we recognize that non-surgeon physicians, nurses and other staff have been shouldering the burden of preparing and caring for COVID-19 patients, placing themselves at significant

personal risk, and we wanted to express our gratitude for their selflessness and service. We also know that surgery is a team sport that requires the expertise, dedication, and input of multiple other team members, whom we don't acknowledge or celebrate often enough. Each of our speakers shared examples of resilience, creativity and hope in the midst of chaos and upheaval. Our UCSF surgeon who traveled to New York City brought back a message of gratitude from our colleagues there: a heartfelt "Thank You" for simply caring and for sending some of our best nurses and doctors to help.

Publication Type

Journal article.

<423>

Accession Number

20203552318

Author

Dhruva Chaudhry; Prashant Kumar; Singh, P. K.; Govindagoudar, M. B.

Title

COVID-19: winter is coming!

Source

Indian Journal of Critical Care Medicine; 2020. 24(S5):S223-S224. 6 ref.

Publisher

Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Coronavirus disease-2019 (COVID-19) pandemic has battered the healthcare system of India recently. Though the mortality rate is low but the mortality itself is high. In this issue, dedicated to COVID-19, the authors have presented a concise and directed look at the pieces of evidence for COVID-19. Today, there is a plethora of information available on COVID-19 but the same does not translate into true knowledge. This issue serves as the one-point reference for pieces of evidence on various critical aspects of COVID-19. As winters are approaching and air pollution will again be bothering the healthcare system, these times are vital for preparing ourselves and resources for a long and exhaustive battle.

Publication Type

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Correspondence.

<424>

Accession Number

20203551746

Author

Kreye, J.; Reincke, S. M.; Kornau, H. C.; Sanchez-Sendin, E.; Corman, V. M.; Liu HeJun; Yuan Meng; Wu, N. C.; Zhu XueYong; Lee, C. C. D.; Trimpert, J.; Holtje, M.; Dietert, K.; Stoffler, L.; Wardenburg, N. von; Hoof, S. van; Homeyer, M. A.

Title

A therapeutic non-self-reactive SARS-CoV-2 antibody protects from lung pathology in a COVID19 hamster model.

Source

Cell (Cambridge); 2020. 183(4):1058-1069.

Publisher

Cell Press

Location of Publisher

Cambridge

Country of Publication

USA

Abstract

The emergence of SARS-CoV-2 led to pandemic spread of coronavirus disease 2019 (COVID-19), manifesting with respiratory symptoms and multi-organ dysfunction. Detailed characterization of virus-neutralizing antibodies and target epitopes is needed to understand COVID-19 pathophysiology and guide immunization strategies. Among 598 human monoclonal antibodies (mAbs) from 10 COVID-19 patients, we identified 40 strongly neutralizing mAbs. The most potent mAb, CV07-209, neutralized authentic SARS-CoV-2 with an IC50 value of 3.1 ng/mL. Crystal structures of two mAbs in complex with the SARS-CoV-2 receptor-binding domain at 2.55 and 2.70 A degrees revealed a direct block of ACE2 attachment. Interestingly, some of the near-germline SARS-CoV-2-neutralizing mAbs reacted with mammalian self-antigens. Prophylactic and therapeutic application of CV07-209 protected hamsters from SARS-CoV-2 infection, weight loss, and lung pathology. Our results show that non-self-reactive virus-neutralizing mAbs elicited during SARS-CoV-2 infection are a promising therapeutic strategy.

Publication Type

Journal article.

<425>

Accession Number

  20203551743

Author

  Du Shuo; Cao YunLong; Zhu QinYu; Yu Pin; Qi FeiFei; Wang GuoPeng; Du XiaoXia; Bao LinLin; Deng Wei; Zhu Hua; Liu JiangNing; Nie JianHui; Zheng YingHui; Liang HaoYu; Liu RuiXue; Gong ShuRan; Xu Hua; Yisimayi Ayijiang; Lv Qi; Wang Bo; He RunSheng; Han YunLin; Zhao WenJie; Bai YaLi; Qu YaJin; Gao Xiang; Ji ChengGong; Wang QiSheng; Gao Ning; Huang WeiJin; Wang YouChun; Xie, X. S.; Su XiaoDong; Xiao JunYu; Qin Chuan

Title

  Structurally resolved SARS-CoV-2 antibody shows high efficacy in severely infected hamsters and provides a potent cocktail pairing strategy.

Source

  Cell (Cambridge); 2020. 183(4):1013-1023. 62 ref.

Publisher

  Cell Press

Location of Publisher

  Cambridge

Country of Publication

  USA

Abstract

  Understanding how potent neutralizing antibodies (NAbs) inhibit SARS-CoV-2 is critical for effective therapeutic development. We previously described BD-368-2, a SARS-CoV-2 NAb with high potency; however, its neutralization mechanism is largely unknown. Here, we report the 3.5-A cryo-EM structure of BD-368-2/trimeric-spike complex, revealing that BD-368-2 fully blocks ACE2 recognition by occupying all three receptor-binding domains (RBDs) simultaneously, regardless of their "up" or "down" conformations. Also, BD-368-2 treats infected adult hamsters at low dosages and at various administering windows, in contrast to placebo hamsters that manifested severe interstitial pneumonia. Moreover, BD-368-2's epitope completely avoids the common binding site of VH3-53/VH3-66 recurrent NAbs, evidenced by tripartite co-crystal structures with RBDs. Pairing BD-368-2 with a potent recurrent NAb neutralizes SARS-CoV-2 pseudovirus at pM level and rescues mutation-induced neutralization escapes. Together, our results rationalized a new RBD epitope that leads to high neutralization potency and demonstrated BD-368-2's therapeutic potential in treating COVID-19.

Publication Type

Journal article.

<426>

Accession Number

 20203551471

Author

 Wang Lu; Hu WeiHua; Fan ChengPeng

Title

 Structural and biochemical characterization of SADS-CoV papain-like protease 2.

Source

 Protein Science; 2020. 29(5):1228-1241. 39 ref.

Publisher

 Wiley

Location of Publisher

 Hoboken

Country of Publication

 USA

Abstract

  Swine acute diarrhea syndrome coronavirus (SADS-CoV) is a novel coronavirus that is involved in severe diarrhea disease in piglets, causing considerable agricultural and economic loss in China. The emergence of this new coronavirus increases the importance of understanding SADS-CoV as well as antivirals. Coronaviral proteases, including main proteases and papain-like proteases (PLP), are attractive antiviral targets because of their essential roles in polyprotein processing and thus viral maturation. Here, we describe the biochemical and structural identification of recombinant SADS papain-like protease 2 (PLP2) domain of nsp3. The SADS-CoV PLP2 was shown to cleave nsp1 proteins and also peptides mimicking the nsp2

  nsp3 cleavage site and also had deubiquitinating and deISGynating activity by in vitro assays. The crystal structure adopts an architecture resembling that of PLPs from other coronaviruses. We characterize both conserved and unique structural features likely directing the interaction of PLP2 with the substrates, including the tentative mapping of active site and other essential residues. These results provide a foundation for understanding the molecular basis of coronaviral PLPs' catalytic mechanism and for the screening and design of therapeutics to combat infection by SADS coronavirus.

Publication Type

 Journal article.

<427>

Accession Number

  20203551084

Author

  Aikpon, R.; Affoukou, C.; Hounpkatin, B.; Eclou, D. D.; Cyaka, Y.; Egwu, E.; Agbessi, N.; Tokponnon, F.; Salifou, S.; Salami, L.; Hounto, A. O.

Title

  Digitalized mass distribution campaign of insecticide-treated nets (ITNs) in the particular context of Covid-19 pandemic in Benin: challenges and lessons learned.

Source

  Malaria Journal; 2020. 19(431):(25 November 2020). 24 ref.

Publisher

  BioMed Central Ltd

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Background: In 2020, Benin has implemented a digitalized mass distribution campaign of insecticide-treated nets (ITNs) in the particular context of COVID-19 pandemic. This paper describes the implementation process as well as the challenges and lessons learned from this campaign. Methods: A descriptive design was used for reporting the planning and implementation process of ITNs campaign. Moreover, the changes and adaptations related to COVID-19 pandemic are described. Results: A total of 3,175,773 households were registered corresponding to a total of 14,423,998 persons (13.55% more from projection). Moreover, 94.16% (13,581,637 people) of enumerated population were protected. A total of 7,652,166 ITNs were distributed countrywide. Conclusions: High political commitment, engagement and support add to the financial and technical supports from partners were the essential factors that make 2020 ITNs mass campaign success in Benin despite the particular context of COVID-19 pandemic. It is essential to maintain the prevention activities for malaria and this could substantially reduce the overall impact of the COVID-19 pandemic for the populations at malaria risk.

Publication Type

  Journal article.

<428>

Accession Number

 20203550856

Author

 Stoykova, B.; Yarkova, Y.; Markov, N.

Title

 State and trends of the development of bioeconomic-oriented livelihood practices.

Source

 Trakia Journal of Sciences; 2020. 18(Suppl. 1):442-450. 9 ref.

Publisher

 Trakia University

Location of Publisher

 Stara Zagora

Country of Publication

 Bulgaria

Abstract

  The aim of the present study is to establish the extent to which natural resources are used and how traditional livelihood practices are exercised at a regional level. The object of this study is a region with developed mass tourism - Bansko Municipality. The subject addresses traditional livelihood practices and the opportunities for expanding alternative forms of tourism. The revival of traditional livelihood models, which directly corresponds to current trends in bioeconomy, can make alternative forms of tourism an important part of the local development strategies in the forthcoming programming period after 2020, including regions established as mass tourism ones. The study has been conducted by applying the survey method in the municipality of Bansko in the period of February-March 2020 coinciding with the onset of the epidemic situation related to COVID-19 in Bulgaria. Taking into account the results from the survey, it is possible to draw conclusions about the extent to which certain conditions for the development of alternative forms of tourism have been created when facing new challenges.

Publication Type

 Journal article

 Conference paper.

<429>

Accession Number

  20203550256

Author

  Muscogiuri, G.; Barrea, L.; Savastano, S.; Colao, A.

Title

  Nutritional recommendations for COVID-19 quarantine.

Source

  European Journal of Clinical Nutrition; 2020. 74(6):850-851. 11 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  All the above described nutrients are enclosed in Mediterranean Diet pattern that could represent a healthy nutritional pattern to be followed in quarantine. Key ingredients of Mediterranean cuisine include olive oil, fresh fruits and vegetables, protein-rich legumes, fish, and whole grains with moderate amounts of wine and red meat. In conclusion, due to the quarantine-related situational stress-eating, nutrition becomes a priority at this time. Many people probably have much of what they might need at home, and so there is no reason to rush to buy groceries creating mass gatherings that could contribute to the spread of CoVID 19 because during quarantine food stores stay open throughout. Keeping foods that are good sources of immuno-supportive nutrients, planning times to eat, meals, portions and having a cutoff time for eating but mostly having in mind positive attitudes could be helpful to tackle the negative health effects of quarantine.

Publication Type

  Journal article.

<430>

Accession Number

20203547833

Author

Hause, B. M.; Nelson, E. A.; Christopher-Hennings, J.

Title

North American big brown bats (Eptesicus fuscus) harbor an exogenous Deltaretrovirus.

Source

mSphere; 2020. 5(5). 25 ref.

Publisher

American Society for Microbiology (ASM)

Location of Publisher

Washington, D.C.

Country of Publication

USA

Abstract

Bats are the reservoir for a large number of zoonotic viruses, including members of Coronaviridae (severe acute respiratory syndrome coronavirus [SARS-CoV] and SARS-CoV-2), Paramyxoviridae (Hendra and Nipah viruses), Rhabdoviridae (rabies virus), and Filoviridae (Ebola virus) as exemplars. Many retroviruses, such as human immunodeficiency virus, are similarly zoonotic; however, only infectious exogenous gammaretroviruses have recently been identified in bats. Here, viral metagenomic sequencing of samples from bats submitted for rabies virus testing, largely due to human exposure, identified a novel, highly divergent exogenous Deltaretrovirus from a big brown bat (Eptesicus fuscus) in South Dakota. The virus sequence, corresponding to Eptesicus fuscus deltaretrovirus (EfDRV), comprised a nearly complete coding region comprised of canonical 5'-gag-pro-pol-env-3' genes with 37% to 51% identity to human T-lymphotropic virus (HTLV), an infectious retrovirus that causes T-cell lymphoma. A putative tax gene with 27% identity to HTLV was located downstream of the pol gene along with a gene harbored in an alternative reading frame which possessed a conserved domain for an Epstein-Barr virus nuclear antigen involved in gene transactivation, suggesting a regulatory function similar to that of the deltaretrovirus rex gene. A TaqMan reverse transcriptase PCR (RT-PCR) targeting the pol gene identified 4/60 (6.7%) bats as positive for EfDRV, which, combined with a search of the E. fuscus genome that failed to identify sequences with homology to EfDRV, suggests that EfDRV is an infectious exogenous virus. As all known members of Deltaretrovirus can cause malignancies and E. fuscus is widely distributed in the Americas, often with a colonial roosting behavior in human dwellings, further studies are needed to investigate potential zoonosis.

Publication Type

Journal article.

<431>

Accession Number

20203545113

Author

Adugna Abera; Habtamu Belay; Aboma Zewude; Bokretsion Gidey; Desalegn Nega; Boja Dufera; Abnet Abebe; Tujuba Endriyas; Birhanu Getachew; Henok Birhanu; Hailemariam Difabachew; Bacha Mekonnen; Helina Legesse; Firdawek Bekele; Kalkidan Mekete; Seble Seifu; Heven Sime; Nebiyou Yemanebrhan; Mesfin Tefera; Hiwot Amare; Berhane Beyene; Estifanos Tsige; Adisu Kebede; Geremew Tasew; Getachew Tollera; Ebba Abate; Adugna Woyessa; Ashenafi Assefa

Title

Establishment of COVID-19 testing laboratory in resource-limited settings: challenges and prospects reported from Ethiopia.

Source

Global Health Action; 2020. 13(1841963). 10 ref.

Publisher

Taylor & Francis

Location of Publisher

Abingdon

Country of Publication

UK

Abstract

The Coronavirus pandemic is recording unprecedented deaths worldwide. The temporal distribution and burden of the disease varies from setting to setting based on economic status, demography and geographic location. A rapid increase in the number of COVID-19 cases is being reported in Africa as of June 2020. Ethiopia reported the first COVID-19 case on 13 March 2020. Limited molecular laboratory capacity in resource constrained settings is a challenge in the diagnosis of the ever-increasing cases and the overall management of the disease. In this article, the Ethiopian Public Health Institute (EPHI) shares the experience, challenges and prospects in the rapid establishment of one of its COVID-19 testing laboratories from available resources. The first steps in establishing the COVID-19 molecular testing laboratory were (i) identifying a suitable space (ii) renovating it and (iii) mobilizing materials including consumables, mainly from the Malaria and Neglected Tropical Diseases (NTDs) research team at the EPHI. A chain of experimental design was set up with distinct laboratories to standardize the extraction of samples, preparation of the master mix and detection. At the commencement of sample reception and testing, laboratory contamination was among the primary challenges faced. The source of the contamination was identified in the master mix room and resolved. In summary, the established COVID-19 testing lab has tested more than 40,000 samples (August 2020) and is the preferred setting for research and training. The lessons learned may benefit the further establishment of emergency testing laboratories for COVID-19 and/or other epidemic/pandemic diseases in resource-limited settings.

Publication Type

Journal article.

<432>

Accession Number

  20203543685

Author

  Arif Jamal Siddiqui; Danciu, C.; Syed Amir Ashraf; Afrasim Moin; Ritu Singh; Mousa Alreshidi; Mitesh Patel; Sadaf Jahan; Sanjeev Kumar; Mulfi I. M. Alkhinjar; Badraoui, R.; Mejdi Snoussi; Mohd Adnan

Title

  Plants-derived biomolecules as potent antiviral phytomedicines: new insights on ethnobotanical evidences against coronaviruses.

Source

  Plants; 2020. 9(9). 288 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  SARS-CoV-2 infection (COVID-19) is in focus over all known human diseases, because it is destroying the world economy and social life, with increased mortality rate each day. To date, there is no specific medicine or vaccine available against this pandemic disease. However, the presence of medicinal plants and their bioactive molecules with antiviral properties might also be a successful strategy in order to develop therapeutic agents against SARS-CoV-2 infection. Thus, this review will summarize the available literature and other information/data sources related to antiviral medicinal plants, with possible ethnobotanical evidence in correlation with coronaviruses. The identification of novel antiviral compounds is of critical significance, and medicinal plant based natural compounds are a good source for such discoveries. In depth search and analysis revealed several medicinal plants with excellent efficacy against SARS-CoV-1 and MERS-CoV, which are well-known to act on ACE-2 receptor, 3CLpro and other viral protein targets. In this review, we have consolidated the data of several medicinal plants and their natural bioactive metabolites, which have promising antiviral activities against coronaviruses with detailed modes of action/mechanism. It is concluded that this review will be useful for researchers worldwide and highly recommended for the development of naturally safe and effective therapeutic drugs/agents against SARS-CoV-2 infection, which might be used in therapeutic protocols alone or in combination with chemically synthetized drugs.

Publication Type

  Journal article.

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429

<433>

Accession Number

  20203542331

Author

  Zhang YueJian; Li YiBo; Wang Xiting; Qu RenDong; Li Juan; Li TengTeng; He Tian; Wang ZheYi; Liu YanSong; Shao XiangMing; Lu Tao

Title

  Herbal plants coordinate COVID-19 in multiple dimensions - an insight analysis for clinically applied remedies.

Source

  International Journal of Medical Sciences (Sydney); 2020. 17(18):3125-3145. 66 ref.

Publisher

  Ivyspring International Publisher Pty Ltd

Location of Publisher

  Sydney

Country of Publication

  Australia

Abstract

  The use of multipronged measures, including traditional Chinese medicine (TCM), has greatly increased in response to the COVID-19 pandemic, and we found the use of TCM and is positively correlated with the regional cure rate in China (R=0.77, P < 10-5). We analyzed 185 commonly administered TCM recipes comprised of 210 herbs nationwide to reveal mechanistic insight. Eight out of the 10 most commonly used herbs showed anti-coronavirus potential by intersecting with COVID-19 targets. Intriguingly, 17 compounds from the 5 most commonly used herbs were revealed to have direct anti-SARS-CoV-2 potential by docking with the two core structures [CoV spike (S) glycoprotein (6SVB) and CoV 3CL hydrolase (6LU7)]. Seven reported COVID-19 drugs served as positive controls; among them, retionavir (-7.828 kcal/mol) and remdesivir (-8.738 kcal/mol) performed best with 6VSB and 6LU7, respectively. The top candidate was madreselvin B (6SVB: -8.588 kcal/mol and 6LU7: -9.017 kcal/mol), an appreciable component of Flos Lonicerae. Eighty-six compounds from 22 unlisted herbs were further identified among 2,042 natural compounds, completing our arsenal for TCM formulations. The mechanisms have been implicated as multifactorial, including activation of immunoregulation (Th2, PPAR and IL10), suppression of acute inflammatory responses (IL-6, IL-1a/beta, TNF, COX2/1, etc.), enhancement of antioxidative activity (CAT and SOD1), and modulation of apoptosis (inhibited CASP3). It is of interest to understand the biological mechanisms of TCM recipes. We then analyzed 18 representative remedies based on molecular targets associated with 14 medical conditions over the disease course, e.g., pyrexia, coughing, asthenia, lymphopenia, cytokine storm, etc. The significant level of coherence (SLC) revealed, in part, the potential

uses and properties of corresponding TCMs. Thus, herbal plants coordinate to combat COVID-19 in multiple dimensions, casting a light of hope before effective vaccines are developed.

Publication Type

Journal article.

<434>

Accession Number

20203541356

Author

Bayhan, T.; Sahin, S.; Culha, V.; Ozbek, N.; Yarali, N.

Title

Pediatric patients with benign hematological diseases during the COVID-19 pandemic.

Source

Pediatric Blood & Cancer; 2020. 67(9). 4 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

This study aimed to investigate the health problems of patients with benign hematological disorders during the restrictions period. Recent studies revealed that there is no increased mortality risk secondary to COVID-19 in pediatric patients with immune suppression. Patients with benign hematological disorders are susceptible to problems in health care. Besides infection risk, patients with chronic diseases are at risk due to the lack of admission to specialized centers during the pandemic period. In Turkey during the pandemic, patients with chronic diseases were able to take their medication without a prescription if they had any reports of chronic use of the drug. This circumstance might have decreased the clinical admissions and complications. The study revealed that the majority of patients did not attend to their routine control, and even in emergent conditions, 62% of patients did not go to any hospital. In conclusion, although none of the patients in our study had severe problems, convenient means to reach health care professions should be provided to prevent complications in children with benign hematological diseases.

Publication Type

Correspondence.

<435>

Accession Number

20203536082

Author

Vijay Kumar; Rajkumar, U.; Niranjan, M.; Rao, S. V. R.

Title

Impact of COVID-19 pandemic on chicken meat and egg consumption patterns in rural and urban areas.

Source

Indian Journal of Poultry Science; 2020. 55(2):147-150.

Publisher

Indian Poultry Science Association

Location of Publisher

Izatnagar

Country of Publication

India

Abstract

A cross-sectional study was conducted in first and second week of May, 2020 for impact assessment on eggs and chicken consumption during the COVID-19 lockdown period of phase I and II (24th March-3rd May, 2020). Data were collected through semistructured interview schedule among randomly selected 77 consumers from 11 states of India. During the lockdown period 26.9% families left consumption of chicken meat and 20.8% families left eating egg due to panic of COVID 19, non-availability due to supply chain disruption, restrictions of containment zones. The chicken consumption significantly (Pd"0.05) reduced during the COVID lockdown period from 2.5 kg to 1.9 kg per week per family. There was significant decrease in consumption of chicken by 26.9% and eggs by 28% in families who continue to take chicken and eggs during lockdown period. The weekly chicken consumption reduced by 40.7% in high, 4.9% in medium and 15.4% low consumption groups. The impact was visible in low consumption level group, in which majority of Indian consumers fall. Consumers were shifted to other vegetarian source of protein during the lockdown period. The government needs to focus on the creation self-sustaining nutrition centric micro-enterprises/start-ups with emphasis and support to the local production and supply chain.

Publication Type

Journal article.

<436>

Accession Number

  20203529222

Author

  Tavassoly, O.; Safavi, F.; Tavassoly, I.

Title

  Heparin-binding peptides as novel therapies to stop SARS-CoV-2 cellular entry and infection.

Source

  Molecular Pharmacology; 2020. 98(5):612-619. many ref.

Publisher

  American Society for Pharmacology and Experimental Therapeutics

Location of Publisher

  Bethesda

Country of Publication

  USA

Abstract

  Heparan sulfate proteoglycans (HSPGs) are cell surface receptors that are involved in the cellular uptake of pathologic amyloid proteins and viruses, including the novel coronavirus; severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Heparin and heparan sulfate antagonize the binding of these pathogens to HSPGs and stop their cellular internalization, but the anticoagulant effect of these agents has been limiting their use in the treatment of viral infections. Heparin-binding peptides (HBPs) are suitable nonanticoagulant agents that are capable of antagonizing binding of heparin-binding pathogens to HSPGs. Here, we review and discuss the use of HBPs as viral uptake inhibitors and will address their benefits and limitations to treat viral infections. Furthermore, we will discuss a variant of these peptides that is in the clinic and can be considered as a novel therapy in coronavirus disease 2019 (COVID-19) infection.

Publication Type

  Journal article.

<437>

Accession Number

  20203519973

Author

  Zhou PengCheng; Liu ZhenGuo; Chen YuHua; Xiao YinZong; Huang Xun; Fan XueGong

Title

  Bacterial and fungal infections in COVID-19 patients: a matter of concern.

Source

  Infection Control and Hospital Epidemiology; 2020. 41(9):1124-1125. 10 ref.

Publisher

  Cambridge University Press

Location of Publisher

  Cambridge

Country of Publication

  UK

Abstract

  The aim of the article was to discuss the prevalence and epidemiology of the concurrence of bacterial and fungal infections with COVID-19.

Publication Type

  Correspondence.

<438>

Accession Number

  20203505875

Author

  Bachevski, D.; Damevska, K.; Simeonovski, V.; Dimova, M.

Title

  Back to the basics: propolis and COVID-19.

Source

  Dermatologic Therapy; 2020. 33(4). 16 ref.

Publisher

  Wiley

Location of Publisher

  Boston

Country of Publication

  USA

Abstract

  The epidemiological burden of COVID-19 is a healthcare challenge throughout the world, not only in terms of testing the limits of medical capacities, but also as an enigma considering preventive strategies and methods. The upper respiratory tract mucosa is the first line of defense, as a physical barrier, as well as through multiple innate and adaptive immune mechanisms which are crucial for efficient antiviral responses. Identifying methods able to reduce or prevent colonization, viral adhesion, and promote virus shedding on mucous membranes or have the ability to inactivate pathogens and thus reduce virus dose and/or increase immune response would be essential in the management of COVID-19 outbreak and help in flattening the curve. We review the effects of propolis, an old remedy with proven antiviral properties, as a possible low-cost inhibitor of SARS-CoV-2 in the oropharyngeal niche, prophylaxis, or adjuvant therapy.

Publication Type

  Journal article.

<439>

Accession Number

  20203505769

Author

  Kutlu, O.; Metin, A.

Title

  Dermatological diseases presented before COVID-19: are patients with psoriasis and superficial fungal infections more vulnerable to the COVID-19?

Source

  Dermatologic Therapy; 2020. 33(4). 19 ref.

Publisher

  Wiley

Location of Publisher

  Boston

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435

Country of Publication

 USA

Abstract

  Recent studies have focused on the comorbid conditions of the COVID-19. According to the current studies, numerous diseases including lung disease, cardiovascular disease and immunosuppression appear to be at higher risk for severe forms of the COVID-19. To date, there are no data in the literature on the comorbid dermatologic diseases and COVID-19. We tried to analyze the previous dermatological comorbidity of 93 patients with COVID-19 (51 males, 42 females) who presented to the dermatology outpatient clinics for the last 3 years. The most common dermatologic diseases in patients with COVID-19 who have dermatologic diseases for the last 3 years were superficial fungal infections (24, 25.8%), seborrheic dermatitis (11, 11.8%), actinic keratosis (10, 10.8%), psoriasis (6, 6.5%), and eczema (6, 6.5%), respectively. In addition, the number of COVID-19 patients who presented to dermatology in the last 3 months was 17 (11 men, 6 women). The median age of these patients was 58 (minimum 18, maximum 80) years, and the most common dermatologic diseases before diagnosed COVID-19 were superficial fungal infections (5, 25%), psoriasis (4, 20%), and viral skin diseases (3, 15%). The possible similarity between cutaneous and mucosal immunity and immunosuppression suggests that patients with some dermatologic diseases especially superficial fungal infections and psoriasis may be more vulnerable to the COVID-19.

Publication Type

 Journal article.

<440>

Accession Number

 20203505481

Author

 Alessy, S. A.; Davies, E. A.; Abdul-Rahman Jazieh

Title

 Cancer care during the COVID-19 pandemic: a perspective from Saudi Arabia.

Source

 ecancermedicalscience; 2020. 14(1076). 22 ref.

Publisher

 ecancer Global Foundation

Location of Publisher

 Bristol

Country of Publication

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436

UK

Abstract

The coronavirus disease 2019 (COVID-19) pandemic continues to disrupt many healthcare settings worldwide including cancer care. COVID-19 has been associated with worse outcomes amongst cancer patients. Saudi Arabia has experienced several Middle East respiratory syndrome coronavirus (MERS-CoV) outbreaks that affected the continuity of cancer care. In this paper, we describe how Saudi Arabia responded to COVID-19, how cancer care was re-restructured during this pandemic and how the recent MERS-CoV experience may have improved the Saudi response to COVID-19.

Publication Type

Journal article.

<441>

Accession Number

20203493227

Author

Ploeg, J. D. van der

Title

From biomedical to politico-economic crisis: the food system in times of Covid-19.

Source

Journal of Peasant Studies; 2020. 47(5):944-972. 84 ref.

Publisher

Routledge

Location of Publisher

Abingdon

Country of Publication

UK

Abstract

The Covid-19 disease is quickly developing into a deep, global and enduring politico-economic crisis that involves a rapid disarticulation of the production, processing, distribution and consumption of food. The badly balanced world market and the high degree of financialization of both primary agricultural production and food chains are decisive factors in this. The crisis highlights that the real economy is far too dependent on the financial economy. Financial capital operates as a paralyzing force. In this situation food

sovereignty, peasant agriculture, territorial markets and agroecology emerge as indispensable ingredients for a recovery.

Publication Type

Journal article.

<442>

Accession Number

20203490639

Author

Patricios, J.; Saggers, R.; Gelbart, B.; Zuydam, J. van

Title

'Make exercise the elixir across an economic divide': a message to COVID-19 decision makers.

Source

South African Journal of Sports Medicine; 2020. 32(23):23-unpaginated. 15 ref.

Publisher

South African Sports Medicine Association

Location of Publisher

Cape Town

Country of Publication

South Africa

Abstract

South Africa, like other countries around the world, has used a lockdown strategy to address the initial phases of the COVID-19 epidemic. The significant restrictions on population movement have included initially limiting exercise to the home. There is substantial evidence for the many benefits of exercise. This study specifically emphasises the benefits of exercise to the immune system, particularly for those most vulnerable to the effects of the SARS-CoV-2 virus and proposes measures to improve access to exercise in a demographically diverse and economically disparate society.

Publication Type

Journal article.

<443>

Accession Number

  20203446856

Author

  Alpino, T. de M. A.; Santos, C. R. B.; Barros, D. C. de; Freitas, C. M. de

Title

  COVID-19 and food and nutritional (in)security: action by the Brazilian federal government during the pandemic, with budget cuts and institutional dismantlement.

Source

  Cadernos de Saude Publica; 2020. 36(8). 86 ref.

Publisher

  Escola Nacional de Saude Publica

Location of Publisher

  Rio de Janeiro

Country of Publication

  Brazil

Abstract

  The COVID-19 pandemic poses one of this century's greatest public health challenges, with impacts on the health and living conditions of populations worldwide. The literature has reported that the pandemic affects the hegemonic food system in various ways. In Brazil, the pandemic amplifies existing social, racial, and gender inequalities, further jeopardizing the Human Right to Adequate Food (HRAF) and the attainment of food and nutritional security, especially among more vulnerable groups. In this context, the article aims to analyze the first measures by the Brazilian Federal Government to mitigate the pandemic's effects and that may have repercussions on food and nutritional security, considering the recent institutional changes in policies and programs. A narrative literature review was performed, and the information sources were the bulletins of the Center for Coordination of Operations by the Crisis Committee for Supervising and Monitoring the Impacts of COVID-19 and homepages of various government ministries, from March to May 2020. The actions were systematized according to the guidelines of the National Policy for Food and Nutritional Security. The analysis identified the creation of institutional crisis management arrangements. The proposed actions feature those involving access to income, emergency aid, and food, such as authorization for food distribution outside schools with federal funds from the National School Feeding Program. However, the setbacks and dismantlement in food and nutritional security may undermine the Federal Government's capacity to respond to COVID-19.

Publication Type

  Journal article.

<444>

Accession Number

  20203446841

Author

  Oliveira, W. A. de; Silva, J. L. da; Andrade, A. L. M.; Micheli, D. de; Carlos, D. M.; Silva, M. A. I.

Title

  Adolescents' health in times of COVID-19: a scoping review.

Source

  Cadernos de Saude Publica; 2020. 36(8). 32 ref.

Publisher

  Escola Nacional de Saude Publica

Location of Publisher

  Rio de Janeiro

Country of Publication

  Brazil

Abstract

  COVID-19, the disease caused by SARS-CoV-2 (novel coronavirus), emerged in China in December 2019 and spread quickly throughout the world. In this scenario, the current study aimed to identify the impact or effects of the COVID-19 pandemic on adolescents' health. This is a scoping literature review based on the following databases: Web of Science, CINAHL, PsycINFO, SciELO, and PUBCOVID19. The study adopted the stages proposed by the Joanna Briggs Institute for scoping reviews, and the question orienting the procedures consisted of the acronym PCC (population; concept; context). Eleven articles were included in the review. Clinically, adolescents present the same COVID-19 symptoms as adults. The pandemic and the health measures taken to control transmission were found to be associated with mental health problems in adolescents. Specifically, adolescents have a negative experience with social distancing measures and closing of schools. These measures can also favor situations of violence or aggressive behaviors in the home environment. Healthcare services that treat the adolescent population had to reorient their practices, adopting a virtual model to replace face-to-face care, and even research projects involving adolescence had to be rethought. This scoping review addressed an emerging theme in relation to a population that has received little attention in studies on COVID-19. The results suggest that the pandemic can be considered a determinant that affects different dimensions of adolescents' lives.

Publication Type

  Journal article.

<445>

Accession Number

  20203568236

Author

  Windarwati, H. D.; Oktaviana, W.; Mukarromah, I.; Ati, N. A. L.; Rizzal, A. F.; Sulaksono, A. D.

Title

  In the middle of the COVID-19 outbreak: early practical guidelines for psychosocial aspects of COVID-19 in East Java, Indonesia.

Source

  Psychiatry Research; 2020. 293. 22 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  It is generally recognized that psychosocial interventions are an essential component in dealing with the COVID-19 outbreak. Research focusing on the handling of psychosocial conditions in the COVID-19 outbreak seems sparse. After reviewing several scholarly articles, we recommend several things that can be used as a basis for developing practical guidelines for handling psychosocial problems, especially in East Java Province, Indonesia. Development of practical guidelines for first-hand response and early treatment of psychosocial aspects of COVID-19 in East Java Province, Indonesia, based on the recommendations of 14 articles related to COVID-19 psychosocial handling was carried out. Some evidence strongly supports the need for knowledge about the stages of COVID-19, understanding of psychosocial responses, understanding of psychosocial interventions, and availability of hotline services in psychosocial interventions at each stage of the COVID-19 outbreak. It is important to provide practical guidance for the early management of psychosocial aspects of the innovative COVID-19 in providing more comprehensive care. There is strong evidence of the need for practical guidance on initial handling of the psychosocial aspects of COVID-19 for the community, especially in Indonesia's East Java Province.

Publication Type

  Journal article.

<446>

Accession Number

  20203567829

Author

  Min Chen; Shen Fei; Yu WenTing; Chu YaJie

Title

  The relationship between government trust and preventive behaviors during the COVID-19 pandemic in China: exploring the roles of knowledge and negative emotion.

Source

  Preventive Medicine; 2020. 141. 20 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  Government trust is known to be associated with preventive practices during pandemics, but few studies have explored the roles of knowledge and negative emotion in conditioning the relationship between trust and preventive behaviors. The aim of this study was to explore the roles of knowledge and negative emotion in conditioning the relationship between trust and preventive measures during the COVID-19 pandemic in China. Data from a cross-sectional survey of 3000 Chinese adults [mean (SD) age 36.93 (12.11) years; 52.4% male], conducted using quota-sampling method (March 2-2020 to March 23-2020), were analyzed. Overall, respondents performed recommended preventive measures more frequently (3.21 out of 4) than excessive preventive measures (2.11 out of 4). Government trust was positively associated with both officially recommended (b = 0.12; 95%CI = 0.18, 0.25) and excessive preventive behaviors (b = 0.07; 95%CI = 0.03, 0.10). The positive relationship between trust and excessive preventive behaviors was found to be statistically significant only among those with low levels of COVID-19 knowledge. Officially recommended preventive behavior is most likely to happen when there is a combination of high levels of government trust and low levels of negative emotion. Therefore, government trust increases both official and excessive (sometimes unscientific) preventive behaviors. Interventions shall aim to enhance people's COVID-19 knowledge and to reduce negative emotions.

Publication Type

  Journal article.

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442

<447>

Accession Number

  20203567325

Author

  Virgilio, F. di; Tang Yong; Sarti, A. C.; Rossato, M.

Title

  A rationale for targeting the P2X7 receptor in Coronavirus disease 19. (Special Issue: The pharmacology of COVID-19.)

Source

  British Journal of Pharmacology; 2020. 177(21):4990-4994. 36 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Severe pneumonia which shares several of the features of acute respiratory distress syndrome (ARDS) is the main cause of morbidity and mortality in Coronavirus disease 19 (Covid-19) for which there is no effective treatment, so far. ARDS is caused and sustained by an uncontrolled inflammatory activation characterized by a massive release of cytokines (cytokine storm), diffuse lung oedema, inflammatory cell infiltration, and disseminated coagulation. Macrophage and T lymphocyte dysfunction plays a central role in this syndrome. In several experimental in vitro and in vivo models, many of these pathophysiological changes are triggered by stimulation of the P2X7 receptor. We hypothesize that this receptor might be an ideal candidate to target in Covid-19-associated severe pneumonia.

Publication Type

  Journal article.

<448>

Accession Number

20203567007

Author

Lustig, N.; Pabon, V. M.; Sanz, F.; Younger, S.

Title

The impact of COVID-19 lockdowns and expanded social assistance on inequality, poverty and mobility in Argentina, Brazil, Colombia and Mexico.

Source

Working Paper - Centre for Global Development; 2020. (556):1-38. 28 ref.

Publisher

Center for Global Development

Location of Publisher

Washington

Country of Publication

USA

Abstract

Based on the economic sector in which household members work, we use microsimulation to estimate the distributional consequences of COVID-19-induced lockdown policies in Argentina, Brazil, Colombia and Mexico. Our estimates of the poverty consequences are worse than many others' projections because we do not assume that the income losses are proportionally equal across the income distribution. We also simulate the effects of most of the expanded social assistance governments have introduced in response to the crisis. This has a large offsetting effect in Brazil and Argentina, much less in Colombia. In Mexico, there has been no such expansion. Contrary to prior expectations, we find that the worst effects are not on the poorest, but those (roughly) in the middle of the ex ante income distribution. In Brazil, we find that poverty among the afrodescendants and indigenous populations increases by more than for whites, but the offsetting effects of expanded social assistance also are larger for the former. In Mexico, the crisis induces significantly less poverty among the indigenous population than it does for the nonindigenous one. In all countries the increase in poverty induced by the lockdown is similar for male- and female-headed households but the offsetting effect of expanded social assistance is greater for female-headed households.

Publication Type

Journal article.

<449>

Accession Number

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444

20203566989

Author

Duggan, J.; Morris, S.; Sandefur, J.; Yang, G.

Title

Is the World Bank's COVID-19 crisis lending big enough, fast enough? New evidence on loan disbursements.

Source

Working Paper - Centre for Global Development; 2020. (554):1-30.

Publisher

Center for Global Development

Location of Publisher

Washington

Country of Publication

USA

Abstract

The World Bank has forecast an unprecedented global recession in 2020-21, and the reversal of a decades-long fall in global poverty, provoking an acute need for short-term financing in low- and lower-middle income countries. Critics contend that the Bank has failed to rise to this challenge, acting slowly to increase lending volumes and resisting calls for a multilateral debt standstill. We compile a new data set, combining official sources with transaction-level records scraped from the World Bank website, spanning all commitments, disbursements, and payments on all World Bank loans from before the 2008-09 Global Financial Crisis (GFC) through August 2020, allowing us to compare the Bank's COVID response to the last comparable global crisis. We find that lending has indeed accelerated in 2020, with new loan commitments up 118 percent year on year in the first seven months of 2020, but actual disbursements up only 31 percent. The latter represents less than half the increase in monthly disbursements observed during the GFC. Furthermore, unlike during the GFC, there has been no increase so far in 2020 in the use of the Bank's "Development Policy Lending" instrument, which allows for rapid, flexible budget support. Overall, the pace of World Bank lending appears incommensurate to the scale of the crisis: while the Bank forecasts a 4.1 percent decline in GDP growth between 2019 and 2020 in the median low-income country, World Bank disbursements in 2020 have risen by just 0.3% of GDP by comparison.

Publication Type

Journal article.

<450>

Accession Number

20203566956

Author

Rashed, M. Z.; Kopechek, J. A.; Priddy, M. C.; Hamorsky, K. T.; Palmer, K. E.; Mittal, N.; Valdez, J.; Flynn, J.; Williams, S. J.

Title

Rapid detection of SARS-CoV-2 antibodies using electrochemical impedance-based detector.

Source

Biosensors & Bioelectronics; 2021. 171. 29 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Coronavirus disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was classified as a pandemic by the World Health Organization and has caused over 550,000 deaths worldwide as of July 2020. Accurate and scalable point-of-care devices would increase screening, diagnosis, and monitoring of COVID-19 patients. Here, we demonstrate rapid label-free electrochemical detection of SARS-CoV-2 antibodies using a commercially available impedance sensing platform. A 16-well plate containing sensing electrodes was pre-coated with receptor binding domain (RBD) of SARS-CoV-2 spike protein, and subsequently tested with samples of anti-SARS-CoV-2 monoclonal antibody CR3022 (0.1 g/ml, 1.0 g/ml, 10 g/ml). Subsequent blinded testing was performed on six serum specimens taken from COVID-19 and non-COVID-19 patients (1:100 dilution factor). The platform was able to differentiate spikes in impedance measurements from a negative control (1% milk solution) for all CR3022 samples. Further, successful differentiation and detection of all positive clinical samples from negative control was achieved. Measured impedance values were consistent when compared to standard ELISA test results showing a strong correlation between them ($R^2=0.9$). Detection occurs in less than five minutes and the well-based platform provides a simplified and familiar testing interface that can be readily adaptable for use in clinical settings.

Publication Type

Journal article.

<451>

Accession Number

20203566796

Author

Kuang Meng; Zheng LanRong; Li Chun; Sheng LiuQing; Qi Min; Deng HuiPing; Jiang ChiQiu

Title

Management of a "suspected ward" in a COVID-19 designated hospital in Wuhan.

Source

Medicine (Baltimore); 2020. 99(44). 24 ref.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

Hagerstown

Country of Publication

USA

Abstract

During December 2019, an outbreak of unexplained pneumonia occurred in Wuhan, Hubei Province. The disease was subsequently named coronavirus disease 2019 (COVID-19) and the causative virus as severe acute respiratory syndrome conronavirus-2 (SARSCoV- 2). Based on experience, it is vital to exclude or diagnose suspected patients as soon as possible to prevent disease spread. Our hospital is a COVID-19 designated hospital in Wuhan. During the epidemic period, there was a reconstruction of the medical facilities to accommodate patients with different disease status. We document the development of "suspected ward," a ward that cared for patients with suspected COVID-19, in a large designated hospital during the COVID-19 outbreak in Wuhan City, China, and explain the suspected ward spatial layout, organization structure, diagnosis, and treatment flow chart of suspected cases. The key characteristics of our "suspected ward" is isolation, triage, fast diagnosis, and rapid referral. Our description of this suspected ward provides a reference for further improvements in the care of patients with suspected disease in emergency medical institutions.

Publication Type

Journal article.

<452>

Accession Number

20203566516

Author

Morilla, L.; Morel, Z.; Pavlicich, V.

Title

Clinical characteristics of pediatric patients with COVID-19 in an emergency department. [Spanish]

Source

Publisher

Sociedad Paraguaya de Pediatria

Location of Publisher

Asuncion

Country of Publication

Paraguay

Abstract

Introduction: The epidemiological and clinical patterns of COVID-19 infection remain unclear, especially among children. Background: To describe epidemiological and clinical aspects of COVID-19 cases treated in a Pediatric Emergency Department between March and September 2020. Materials and Methods: This was an observational, descriptive and retrospective study of a series of consecutive cases. Patients aged 0-18 years were included in a non-probability sampling. The variables analyzed were: demographic data, pediatric evaluation triangle, contact situation, symptoms, clinical picture, hospitalization, nutritional status, laboratory analysis and images. Data were analyzed in SPSS V21 using descriptive statistics Results: 56 patients were admitted. 37.5% were under 2 years old and 32% had comorbid conditions. 51.8% were hospitalized. The median time of hospitalization was 48 (P25 6- P75 90) hours. The predominant clinical picture was lower airway infection. 9% presented severe or critical symptoms, and 5.4% were admitted to intensive care. There was 1 deceased patient, who had severe comorbidities. The PCR was performed with a median of 4 days (min. 0 max. 10) of symptom onset Conclusion: More than a third of the patients with Covid -19 were under 2 years of age and 32% had a comorbidity. The clinical picture was mild in 70% of the cases, although more than half were hospitalized and 5.4% were admitted to intensive care. The most frequent clinical presentation was upper airway involvement followed by pneumonia. One patient with severe comorbidities died.

Publication Type

Journal article.

<453>

Accession Number

20203566504

Author

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448

Peman, J.; Ruiz-Gaitan, A.; Garcia-Vidal, C.; Salavert, M.; Ramirez, P.; Puchades, F.; Garcia-Hita, M.; Alastruey-Izquierdo, A.; Quindos, G.

Title

Fungal co-infection in COVID-19 patients: should we be concerned?

Source

Publisher

Elsevier Espana, S. L.

Location of Publisher

Barcelona

Country of Publication

Spain

Abstract

Critically ill COVID-19 patients have higher pro-inflammatory (IL-1, IL-2, IL-6, tumor necrosis alpha) and anti-inflammatory (IL-4, IL-10) cytokine levels, less CD4 interferon-gamma expression, and fewer CD4 and CD8 cells. This severe clinical situation increases the risk of serious fungal infections, such as invasive pulmonary aspergillosis, invasive candidiasis or Pneumocystis jirovecii pneumonia. However, few studies have investigated fungal coinfections in this population. We describe an update on published reports on fungal coinfections and our personal experience in three Spanish hospitals. We can conclude that despite the serious disease caused by SARS-CoV-2 in many patients, the scarcity of invasive mycoses is probably due to the few bronchoscopies and necropsies performed in these patients because of the high risk in aerosol generation. However, the presence of fungal markers in clinically relevant specimens, with the exception of bronchopulmonary colonization by Candida, should make it advisable to early implement antifungal therapy.

Publication Type

Journal article.

<454>

Accession Number

20203566500

Author

Amit Kumar; Kubota, Y.; Chernov, M.; Kasuya, H.

Title

Potential role of zinc supplementation in prophylaxis and treatment of COVID-19.

Source

Medical Hypotheses; 2020. 144.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Coronavirus Disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) represents the largest current health challenge for the society. At the moment, the therapeutic strategies to deal with this disease are only supportive. It is well known that zinc (Zn) possesses a variety of direct and indirect antiviral properties, which are realized through different mechanisms. Administration of Zn supplement has a potential to enhance antiviral immunity, both innate and humoral, and to restore depleted immune cell function or to improve normal immune cell function, in particular in immunocompromised or elderly patients. Zn may also act in a synergistic manner when co-administered with the standard antiviral therapy, as was demonstrated in patients with hepatitis C, HIV, and SARS-CoV-1. Effectiveness of Zn against a number of viral species is mainly realized through the physical processes, such as virus attachment, infection, and uncoating. Zn may also protect or stabilize the cell membrane which could contribute to blocking of the virus entry into the cell. On the other hand, it was demonstrated that Zn may inhibit viral replication by alteration of the proteolytic processing of replicase polyproteins and RNA-dependent RNA polymerase (RdRp) in rhinoviruses, HCV, and influenza virus, and diminish the RNA-synthesizing activity of nidoviruses, for which SARS-CoV-2 belongs. Therefore, it may be hypothesized that Zn supplementation may be of potential benefit for prophylaxis and treatment of COVID-19.

Publication Type

Journal article.

<455>

Accession Number

20203566497

Author

Recinella, G.; Marasco, G.; Battista, A. di; Bianchi, G.; Zoli, M.

Title

Prognostic role of nutritional status in elderly patients hospitalized for COVID-19.

Source

Medical Hypotheses; 2020. 144. 3 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<456>

Accession Number

20203566495

Author

Singh, A. K.; Gaurav Mishra; Anand Maurya; Kulkarni, G. T.; Rajendra Awasthi

Title

Biofabrication: an interesting tool to create in vitro model for COVID-19 drug targets.

Source

Medical Hypotheses; 2020. 144.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

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<457>

Accession Number

  20203566475

Author

  Prince Allawadhi; Amit Khurana; Sachin Allwadhi; Navik, U. S.; Kamaldeep Joshi; Banothu, A. K.; Bharani, K. K.

Title

  Potential of electric stimulation for the management of COVID-19.

Source

  Medical Hypotheses; 2020. 144. 18 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The COVID-19 pandemic is the most devastating health emergency that humans have seen over the past century. The war against the disease has been handicapped by unavailability of effective therapeutic options. Till date, there is no clinically approved vaccine or drug for the treatment of COVID-19, and the ongoing search to find a novel therapy is progressing at pandemic pace. Herein, we propose a novel hypothesis based on sound research evidence that electric stimulation can be a potential adjuvant to the currently used symptomatic therapies and antiviral drugs. Based on preclinical evidence, we propose that electric stimulation can improve respiratory functions, inhibit SARS-CoV-2 growth, reduce pain, boost immunity and improve the penetration of antiviral drugs. We envisage that our hypothesis, if used clinically as an adjuvant, may significantly improve the therapeutic outcomes of the current treatment regimen being used around the globe for the management of COVID-19.

Publication Type

  Journal article.

<458>

Accession Number

  20203566468

Author

  Rossi, M.; Piagnerelli, M.; Meerhaeghe, A. van; Boudjeltia, K. Z.

Title

  Heme oxygenase-1 (HO-1) cytoprotective pathway: a potential treatment strategy against coronavirus disease 2019 (COVID-19)-induced cytokine storm syndrome.

Source

  Medical Hypotheses; 2020. 144. 31 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The outbreak of coronavirus disease 2019 (COVID-19) requires urgent need for effective treatment. Severe COVID-19 is characterized by a cytokine storm syndrome with subsequent multiple organ failure (MOF) and acute respiratory distress syndrome (ARDS), which may lead to intensive care unit and increased risk of death. While awaiting a vaccine, targeting COVID-19-induced cytokine storm syndrome appears currently as the efficient strategy to reduce the mortality of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The stress-responsive enzyme, heme oxygenase-1 (HO-1) is largely known to protect against inflammatory response in animal models. HO-1 is induced by hemin, a well-tolerated molecule, used for decades in the treatment of acute intermittent porphyria. Experimental studies showed that hemin-induced HO-1 mitigates cytokine storm and lung injury in mouse models of sepsis and renal ischemia-reperfusion injury. Furthermore, HO-1 may also control numerous viral infections by inhibiting virus replication. In this context, we suggest the hypothesis that HO-1 cytoprotective pathway might be a promising target to control SARS-CoV-2 infection and mitigate COVID-19-induced cytokine storm and subsequent ARDS.

Publication Type

  Journal article.

<459>

Accession Number

  20203566393

Author

  Rabiee, N.; Rabiee, M.; Bagherzadeh, M.; Rezaei, N.

Title

  COVID-19 and picotechnology: potential opportunities.

Source

  Medical Hypotheses; 2020. 144.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Humanity's challenges are becoming increasingly difficult, and as these challenges become more advanced, the need for effective and intelligent action becomes more apparent. Meanwhile, the novel coronavirus disease (COVID-19) pandemic, which has plagued the world, could be considered as an opportunity to take a step toward the need for atomic engineering, compared to molecular engineering, as well as to accelerate this type of research. This approach, which can be expressed in terms of picotechnology, makes it possible to identify living cell types or in general, chemical and biological surfaces using their atomic arrays, and applied for early diagnosis even treatment of the disease.

Publication Type

  Correspondence.

<460>

Accession Number

  20203566372

Author

Taghavi-Farahabadi, M.; Mahmoudi, M.; Soudi, S.; Hashemi, S. M.

Title

Hypothesis for the management and treatment of the COVID-19-induced acute respiratory distress syndrome and lung injury using mesenchymal stem cell-derived exosomes.

Source

Medical Hypotheses; 2020. 144.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a member of the coronaviridae that causes respiratory disorders. After infection, large amounts of inflammatory cytokines are secreted, known as the cytokine storm. These cytokines can cause pulmonary damage induced by inflammation resulting in acute respiratory distress syndrome (ARDS), and even death. One of the therapeutic approaches for treatment of ARDS is a mesenchymal stem cell (MSC). MSCs suppress inflammation and reduce lung injury through their immunomodulatory properties. MSCs also have the potential to prevent apoptosis of the lung cells and regenerate them. But our suggestion is using MSCs-derived exosomes. Because these exosomes apply the same immunomodulatory and tissue repair effects of MSCs and they don't have problems associated to cell maintenance and injections. For investigation the hypothesis, MSCs should be isolated from tissues and characterized. Then, the exosomes should be isolated from the supernatants and characterized. These exosomes should be injected into a transgenic animal for COVID-19. In the final section, lung function assessment, histological examination, micro-CT, differential leukocyte, viral load analysis, cytokine assay, and CRP level analysis can be investigated. COVID-19 treatment is currently focused on supportive therapies and no vaccine has been developed for it. So, numerous researches are needed to find potential therapies. Since the pathogenesis of this disease was identified in previous studies and can cause lung injury with ARDS, investigation of the therapeutic approaches that can suppress inflammation, cytokine storm and ARDS can be helpful in finding a novel therapeutic approach for this disease.

Publication Type

Journal article.

<461>

Accession Number

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455

20203565660

Author

Ramdani, L. H.; Bachari, K.

Title

Potential therapeutic effects of resveratrol against SARS-CoV-2.

Source

Acta Virologica; 2020. 64(3):276-280.

Publisher

AEP - Academic Electronic Press Ltd

Location of Publisher

Bratislava

Country of Publication

Slovakia

Abstract

Novel Coronavirus COVID-19 or Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) as well as Severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV), are human pathogens. Current pandemics of SARS-CoV-2 represents a major health problem worldwide, with over four million cases and more than 300,000 deaths in the world. Development of effective therapy thus became an emergency. This report aims to highlight Resveratrol as possible therapeutic candidate in SARS-CoV-2 infection. The antiviral efficacy of Resveratrol was demonstrated for several viruses, including coronavirus. Resveratrol was shown to mitigate the major pathways involved in the pathogenesis of SARS-CoV-2, including regulation of the renin-angiotensin system (RAS) and expression of angiotensin-converting enzyme 2 (ACE2), stimulation of immune system and downregulation of pro-inflammatory cytokines release. It was also reported to promote SIRT1 and p53 signaling pathways and increase cytotoxic T lymphocytes (CTLs) and natural killer (NK) immune cells. In addition, Resveratrol was demonstrated to be a stimulator of fetal hemoglobin and a potent antioxidant, by trapping reactive oxygen species (ROS). According to these reports, Resveratrol could be proposed as potential therapeutics in the treatment of SARS-CoV-2.

Publication Type

Journal article.

<462>

Accession Number

20203565201

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456

Author

Seaton, R. A.; Gibbons, C. L.; Cooper, L.; Malcolm, W.; McKinney, R.; Dundas, S.; Griffith, D.; Jeffreys, D.; Hamilton, K.; Choo-Kang Brian; Brittain, S.; Guthrie, D.; Sneddon, J.

Title

Survey of antibiotic and antifungal prescribing in patients with suspected and confirmed COVID-19 in Scottish hospitals.

Abstract

Background: Concern regarding bacterial co-infection complicating SARS-CoV-2 has created a challenge for antimicrobial stewardship. Following introduction of national antibiotic recommendations for suspected bacterial respiratory tract infection complicating COVID-19, a point prevalence survey of prescribing was conducted across acute hospitals in Scotland. Methods: Patients in designated COVID-19 units were included and demographic, clinical and antimicrobial data were collected from 15 hospitals on a single day between 20th and 30th April 2020. Comparisons were made between SARS-CoV-2 positive and negative patients and patients on non-critical care and critical care units. Factors associated with antibiotic prescribing in SARS-CoV-2 positive patients were examined using Univariable and multivariable regression analyses. Findings: There were 820 patients were included, 64.8% were SARS-CoV-2 positive and 14.9% were managed in critical care, and 22.1% of SARS-CoV-2 infections were considered probable or definite nosocomial infections. On the survey day, antibiotic prevalence was 45.0% and 73.9% were prescribed for suspected respiratory tract infection. Amoxicillin, doxycycline and co-amoxiclav accounted for over half of all antibiotics in non-critical care wards and meropenem, piperacillin-tazobactam and co-amoxiclav accounted for approximately half prescribed in critical care. Of all SARS-CoV-2 patients, 38.3% were prescribed antibiotics. In a multivariable logistic regression analysis, COPD/chronic lung disease and CRP 100 mg/l were associated with higher odds and probable or confirmed nosocomial COVID-19, diabetes and management on an elderly care ward had lower odds of an antibiotic prescription. Systemic antifungals were prescribed in 9.8% of critical care patients and commenced a median of 18 days after critical care admission. Interpretation: A relatively low prevalence of antibiotic prescribing in SARS-CoV-2 hospitalised patients and low proportion of broad spectrum antibiotics in non-critical care settings was observed potentially reflecting national antimicrobial stewardship initiatives. Broad spectrum antibiotic and antifungal prescribing in critical care units was observed indicating the importance of infection prevention and control and stewardship initiatives in this setting.

Publication Type

Journal article.

<463>

Accession Number

  20203565200

Author

  Kundi, H.; Cetin, E. H. O.; Canpolat, U.; Aras, S.; Celik, O.; Ata, N.; Birinci, S.; Cay, S.; Ozeke, O.; Tanboga, I. H.; Topaloglu, S.

Title

  The role of frailty on adverse outcomes among older patients with COVID-19.

Source

  Journal of Infection; 2020. 81(6):944-951. 36 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Background: Diagnosis and screening of frailty, a condition characterized by an increased vulnerability to adverse outcomes of COVID-19, has emerged as an essential clinical tool which is strongly recommended by healthcare providers concerned with hospitalized elderly population. The data showing the role of frailty in patients infected with COVID-19 is needed. Methods: This was a nationwide cohort study conducted at all hospitals in Turkey. All COVID-19 hospitalized patients (65 years) were included. Patients who were alive and not discharged up to July 20, 2020, were excluded. The frailty was assessed by using the "Hospital Frailty Risk Score" (HFRS). Patients were classified into three risk groups of frailty based on previously validated cut points as low (< 5 points), intermediate (5-15 points), and high (>15 points). Additionally, patients who had the HFRS of 5 were defined as frail. The primary outcome was in-hospital mortality rates by frailty group. Results: Between March 11, 2020, and June 22, 2020, a total of 18,234 COVID-19 patients from all of 81 provinces of Turkey were included. Totally, 12,295 (67.4%) patients were defined as frail (HFRS of > 5) of which 2,801 (15.4%) patients were categorized in the highest level of frailty (HFRS of > 15). Observed in-hospital mortality rates were 697 (12.0%), 1,751 (18.2%) and 867 (31.0%) in low, intermediate and high hospital frailty risk, respectively (p<0.001). Compared with low HFRS (< 5), the adjusted odds ratios for in-hospital mortality were 1.482 (1.334-1.646) for intermediate HFRS (5 - 15) and 2.084; 95% CI, 1.799-2.413 for high HFRS (> 15). Conclusions: As a claims-based frailty model, the HFRS provides clinicians and health systems, a standardized tool for an effective detection and grading of frailty in patients in COVID-19. A frailty-based tailored management of the older population may provide a more accurate risk categorization for both therapeutic and preventive strategies.

Publication Type

Journal article.

<464>

Accession Number

 20203565196

Author

 Wang XiaoMin; Lin Leesa; Xuan ZiMing; Xu JiaYao; Wan YuLing; Zhou XuDong

Title

 Risk communication on behavioral responses during COVID-19 among general population in China: a rapid national study.

Source

 Journal of Infection; 2020. 81(6):911-922. 53 ref.

Publisher

 Elsevier Ltd

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

 Objectives: To describe the risk perception and behavioral responses among Chinese adults and to assess the associations of risk communication, risk perception, and behavioral adherence during the COVID-19 epidemic. Methods: A national cross-sectional survey was conducted in 31 provinces in China with a total number of 5039 effective questionnaires collected. The questionnaire included sociodemographic characteristics, COVID-19 risk communication factors, mask and soap supply, and engagement in preventive behaviors during the epidemic. Multivariable Logistic regression was used. Results: An overwhelmingly high prevalence of Chinese people was exposed to COVID-19 related risk communication messages (86.5%) and an overwhelming majority of respondents reported engagement in preventive behaviors (88.3%). Exposed to risk communication messages were positively associated with engaging in preventive behaviors, whereas, believing in misinformation were negatively associated with wearing masks when in public (p < 0.01). Respondents encountered an inadequate supplies of personal protection materials were negatively associated with their outdoor hygiene behaviors. People who were male, in an older age group, minorities, with lower education, with lower income, and lived in rural area showed lower exposures to risk communication messages. Conclusions: Future risk communication practices are recommended to better monitor population risk perceptions and pay attention to socio-demographically disadvantaged people.

Publication Type

  Journal article.

<465>

Accession Number

  20203564803

Author

  Pan LingAi; Zeng Jie; Yang HongJi

Title

  Challenges and countermeasures for organ donation during the SARS-CoV-2 epidemic: the experience of Sichuan Provincial People's Hospital.

Source

  Intensive Care Medicine; 2020. 46(5):844-845.

Publisher

  Springer Berlin

Location of Publisher

  Heidelberg

Country of Publication

  Germany

Publication Type

  Correspondence.

<466>

Accession Number

  20203564690

Author

Annweiler, C.; Hanotte, B.; Grandin L'Eprevier, C. de; Sabatier, J. M.; Lafaie, L.; Celarier, T.

Title

Vitamin D and survival in COVID-19 patients: a quasi-experimental study.

Source

Journal of Steroid Biochemistry and Molecular Biology; 2020. 204. 29 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Vitamin D may be a central biological determinant of COVID-19 outcomes. The objective of this quasi-experimental study was to determine whether bolus vitamin D3 supplementation taken during or just before COVID-19 was effective in improving survival among frail elderly nursing-home residents with COVID-19. Sixty-six residents with COVID-19 from a French nursing-home were included in this quasi-experimental study. The "Intervention group" was defined as those having received bolus vitamin D3 supplementation during COVID-19 or in the preceding month, and the "Comparator group" corresponded to all other participants. The primary and secondary outcomes were COVID-19 mortality and Ordinal Scale for Clinical Improvement (OSCI) score in acute phase, respectively. Age, gender, number of drugs daily taken, functional abilities, albuminemia, use of corticosteroids and/or hydroxychloroquine and/or antibiotics (i.e., azithromycin or rovamycin), and hospitalization for COVID-19 were used as potential confounders. The Intervention (n = 57; mean +or- SD, 87.7 +or- 9.3 years; 79%women) and Comparator (n = 9; mean, 87.4 +or- 7.2 years; 67%women) groups were comparable at baseline, as were the COVID-19 severity and the use of dedicated COVID-19 drugs. The mean follow-up time was 36 +or- 17 days. 82.5% of participants in the Intervention group survived COVID-19, compared to only 44.4% in the Comparator group (P = 0.023). The full-adjusted hazard ratio for mortality according to vitamin D3 supplementation was HR = 0.11 [95%CI:0.03;0.48], P = 0.003. Kaplan-Meier distributions showed that Intervention group had longer survival time than Comparator group (log-rank P = 0.002). Finally, vitamin D3 supplementation was inversely associated with OSCI score for COVID-19 (beta=-3.84 [95%CI:-6.07;-1.62], P = 0.001). In conclusion, bolus vitamin D3 supplementation during or just before COVID-19 was associated in frail elderly with less severe COVID-19 and better survival rate.

Publication Type

Journal article.

<467>

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461

Accession Number

  20203564671

Author

  Radhakrishnana, V. S.; Nair, R. K. S.; Gaurav Goel; Venkatraman Ramanan; Mammen Chandy; Reena Nair

Title

  COVID-19 and haematology services in a cancer centre from a middle-income country: adapting service delivery, balancing the known and unknown during the pandemic.

Source

  ecancermedicalscience; 2020. 14(1110). 28 ref.

Publisher

  ecancer Global Foundation

Location of Publisher

  Bristol

Country of Publication

  UK

Abstract

  The COVID-19 pandemic has caused major disruptions in multiple spheres of healthcare delivery in the world. Developing nations have had to tackle this unanticipated crisis in the midst of various other healthcare delivery issues and resource constraints. As a tertiary level cancer care provider located in an eastern Indian city, a COVID-19 hotspot, we share our experience from the perspective of haematology and haematopoietic stem cell transplantation (HSCT) services. The primary challenges related to infection control included infection screening and decreasing exposure among patients and healthcare workers. Logistic challenges include maintaining essential patient care services, personnel redeployment, blood bank inventory constraints and maintaining the supply chain for a continuum of care. Clinical management challenges were dealt with by rationalising treatment delivery by modification of treatment regimens, risk-based deferral of HSCT, management of COVID-19 in patients, and staggering the follow-up schedules in survivors and those on maintenance therapies, among other strategies. These challenges were compounded by the restrictions imposed by a countrywide lockdown in the initial period of the pandemic, which also affected the socio-economic aspects of treatment delivery. As a training institution, this period also impacted academics and research activities. This overview details our response to these challenges during the COVID-19 pandemic, which has many unknowns.

Publication Type

  Journal article.

<468>

Accession Number

  20203564667

Author

  Kochbati, L.; Vanderpuye, V.; Moujahed, R.; Rejeb, M. B.; Naimi, Z.; Olasinde, T.

Title

  Cancer care and COVID-19: tailoring recommendations for the African radiation oncology context.

Source

  ecancermedicalscience; 2020. 14(1144). 31 ref.

Publisher

  ecancer Global Foundation

Location of Publisher

  Bristol

Country of Publication

  UK

Abstract

  Africa is the second most populous continent after Asia comprising 54 countries. Given the healthcare system deficiencies in Africa, the impact of the COVID-19 pandemic was expected to be disastrous. The first case of COVID-19 on the continent was reported in Egypt on 14 February 2020. By 13 May, cases had been reported in all 54 countries. Several practice guidelines specific to radiation oncology departments have been published, including prioritisation criteria for postponing radiotherapy, continuation of treatment, hypofractionation or even omitting radiotherapy. The oncology community in Africa has suddenly needed to protect both patients and caregivers and to ensure continuity of essential clinical services despite several challenges. Considering equipment unavailability, lack of human resources and poor infrastructure, tailoring COVID-19 pandemic management to the African context seems mandatory and a unified approach to guideline development in this context is encouraged. In this article, we discuss contextual issues coming into play, highlighting steps to be taken by radiotherapy centres in Africa to mitigate fallouts from the current pandemic to ensure the safety of our patients and staff as well as the impact on future care.

Publication Type

  Journal article.

<469>

Accession Number

  20203564644

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463

Author

Kong YekChing; Sakti, V. V.; Richard Sullivan; Nirmala Bhoo-Pathy

Title

Cancer and COVID-19: economic impact on households in Southeast Asia.

Source

ecancermedicalscience; 2020. 14(1134). 42 ref.

Publisher

ecancer Global Foundation

Location of Publisher

Bristol

Country of Publication

UK

Abstract

The ongoing COVID-19 pandemic may worsen the existing financial vulnerabilities of cancer survivors who may be experiencing a double financial hit, both from cancer-induced financial toxicity as well as economic strains arising from loss of income and prolonged unemployment following the pandemic. The impact of the pandemic is likely to be more pronounced on cancer survivors living in resource-limited settings, such as in Southeast Asia. As health care systems in the region try to streamline resources and accommodate the influx of patients from COVID-19, many in the cancer community have experienced severe disruptions in their care. The delays and disruption of timely access to cancer care could lead to patients presenting with worsened conditions and at more advanced cancer stages in which treatment options tended to be costlier. Similar to countries around the world, the various forms of movement restrictions that were enforced have aggravated the rates of unemployment, loss of wages and the limited access to support from family or friends around Southeast Asia. The economic impact of COVID-19 hits even harder on the large proportion of the population in the region that works in the informal sector, who are often one paycheque or one episode of illness away from financial catastrophe. More worryingly, the lack of a robust social security system in many Southeast Asian countries, especially in terms of income protection, could ultimately force many cancer survivors to choose between paying for their treatments, or to forego treatments, and feed their families. Early identification of cancer patients experiencing financial toxicity following the pandemic will enable timely and appropriate interventions to be undertaken by various stakeholders, potentially averting a cascade of other economic fallouts that may last for years after cancer treatment.

Publication Type

Journal article.

<470>

Accession Number

20203564502

Author

Jie LiShao; Yu Yuan; Ping ZengJian; Dong XiangXu; Ping ChaiXiang; Chao Hu; Li Yang; Jing Yang; Ling TanYan; Yan JiangMing; Peng Ling

Title

Risk factors for Coronavirus disease 2019 pneumonia after admission outside Wuhan, China.

Source

Medicine (Baltimore); 2020. 99(45). 17 ref.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

Hagerstown

Country of Publication

USA

Abstract

Coronavirus disease 2019 (COVID-19) has spread worldwide, causing significant stress on the medical system. We explored the risk factors for condition changes in COVID-19 pneumonia patients after admission. The patients diagnosed with COVID-19 pneumonia at 2 medical centers in Hunan Province were studied, and those whose conditions changed after admission were compared. Their clinical characteristics and experimental indicators were compared using SPSS software and R language to build a disease risk prediction model. Patients with condition changes after admission were older and had more blood cell abnormalities and impaired organ function (decreased albumin, elevated D-dimer) than normal patients. We found that age, neutrophil ratio, D-dimer, chest Computed tomograpgy (CT) changes, and glucocorticoid use were risk factors for COVID-19 pneumonia after admission. Elderly patients are more susceptible to disease changes after COVID-19 pneumonia; COVID-19 pneumonia patients who develop disease changes after admission have higher neutrophil ratios, increased D-dimer levels, chest imaging changes, and glucocorticoid usage. Additional research is needed.

Publication Type

Journal article.

<471>

Accession Number

20203564475

Author

Ufuk, F.; Demirci, M.; Sagtas, E.; Akbudak, I. H.; Ugurlu, E.; Sari, T.

Title

The prognostic value of pneumonia severity score and pectoralis muscle Area on chest CT in adult COVID-19 patients.

Source

European Journal of Radiology; 2020. 131. 21 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Purpose: To assess the prognostic value of pneumonia severity score (PSS), pectoralis muscle area (PMA), and index (PMI) on chest computed tomography (CT) in adult coronavirus disease 2019 (COVID-19) patients. Method: The chest CT images of COVID-19 patients were evaluated for the PSS as the ratio of the volume of involved lung parenchyma to the total lung volume. The cross-sectional areas of the pectoralis muscles (PMA, cm2) were also measured automatically on axial CT images, and PMI was calculated as the following formula: PMI=PMA/patient's height square (m2). The relationship between clinical variables, PSS, PMA, sex-specific PMI values, and patient outcomes (intubation, prolonged hospital stay, and death) were investigated using multivariable logistic regression analysis. All patients were followed for more than a month. Results: One-hundred thirty patients (76 males, 58.46%) were included in the study. Fifteen patients (11.54%) were intubated, 24 patients (18.46%) had prolonged hospital stay, and eight patients (6.15%) died during follow-up. Patients with comorbidity had a higher mean of PSS (6.3 + 4.5 vs 3.9 + 3.8; p=0.001). After adjusting the confounders, PSS was an independent predictor of intubation (adjusted Odds Ratio [OR]: 1.73, 95% CI 1.31-2.28, p < 0.001), prolonged hospital stay (OR: 1.20, 95% CI 1.09-1.33, p < 0.001), and death (OR: 2.13, 95% CI 1.1-4.13, p=0.026). PMI value was a predictor of prolonged hospital stay (OR: 0.83, 95% CI 0.72-0.96, p=0.038) and death (OR: 0.53, 95% CI 0.29-0.96, p=0.036). Incrementally increasing PMA value was a predictor of prolonged hospital stay (OR: 0.93, 95% CI 0.89-0.98, p=0.01) and intubation (OR: 0.98, 95% CI 0.96-1, p=0.036). Conclusion: PSS, PMA, and PMI values have prognostic value in adult COVID-19 patients and can be easily assessed on chest CT images.

Publication Type

Journal article.

<472>

Accession Number

20203563951

Author

Maheshwar Bhasin; Sushma Nangia; Srishti Goel

Title

Role of human milk banks amid COVID 19: perspective from a milk bank in India.

Source

International Breastfeeding Journal; 2020. 15(104):(2 December 2020). 50 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The COVID-19 pandemic has had a significant impact on the operation of donor human milk banks in various countries such as China, Italy and India. It is understandable that this impact on operations of donor human milk might hamper the capability of these milk banks to provide sufficient pasteurized donor milk to neonates who need it. Contrary to developed world, predominant donors in developing nations are mothers of hospitalised neonates who have a relatively long period of hospital stay. This longer maternal hospital stay enhances the feasibility of milk donation by providing mothers with access to breast pumps to express their milk. Any excess milk a mother expresses which is above the needs of their own infant can be voluntarily donated. This physical proximity of milk banks to donors may help continuation of human milk donation in developing nations during the pandemic. Nevertheless, protocols need to be implemented to (i) ensure the microbiological quality of the milk collected and (ii) consider steps to mitigate potential consequences related to the possibility of the donor being an asymptomatic carrier of COVID-19. We present the procedural modifications implemented at the Comprehensive Lactation Management Centre at Lady Hardinge Medical College in India to promote breastfeeding and human milk donation during the pandemic which comply with International and National guidelines. This commentary provides a perspective from a milk bank in India which might differ from the perspective of the international donor human milk banking societies.

Publication Type

Journal article.

<473>

Accession Number

20203563922

Author

Mayorga, L.; Samartino, C. G.; Flores, G.; Masuelli, S.; Sanchez, M. V.; Mayorga, L. S.; Sanchez, C. G.

Title

A modelling study highlights the power of detecting and isolating asymptomatic or very mildly affected individuals for COVID-19 epidemic management.

Source

BMC Public Health; 2020. 20(1809):(27 November 2020). 16 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: Mathematical modelling of infectious diseases is a powerful tool for the design of management policies and a fundamental part of the arsenal currently deployed to deal with the COVID-19 pandemic. Methods: We present a compartmental model for the disease where symptomatic and asymptomatic individuals move separately. We introduced healthcare burden parameters allowing to infer possible containment and suppression strategies. In addition, the model was scaled up to describe different interconnected areas, giving the possibility to trigger regionalized measures. It was specially adjusted to Mendoza-Argentina's parameters, but is easily adaptable for elsewhere. Results: Overall, the simulations we carried out were notably more effective when mitigation measures were not relaxed in between the suppressive actions. Since asymptomatics or very mildly affected patients are the vast majority, we studied the impact of detecting and isolating them. The removal of asymptomatics from the infectious pool remarkably lowered the effective reproduction number, healthcare burden and overall fatality. Furthermore, different suppression triggers regarding ICU occupancy were attempted. The best scenario was found to be the combination of ICU occupancy triggers (on: 50%, off: 30%) with the detection and isolation of asymptomatic individuals. In the ideal assumption that 45% of the asymptomatics could be detected and isolated, there would be no need for complete lockdown, and Mendoza's healthcare system would not collapse. Conclusions: Our model and its analysis inform that the detection and isolation of all infected individuals, without leaving aside the asymptomatic group is the key to surpass this pandemic.

Publication Type

Journal article.

<474>

Accession Number

20203563774

Author

Anurag Chaudhary; Priya Bansal; Gupta, V. K.; Mahesh Satija; Sangeeta Girdhar; Sarit Sharma; Bishav Mohan; Pranjl Sharma; Prabhleen Kaur; Aman Bansal

Title

Initial experiences regarding covid19 mortality in Punjab-a mixed method analysis.

Source

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Context: The spread of COVID-19 pandemic poses a great challenge to health care organizations and unprecedented need for information. This study aims to identify possible factors causing delay and losing precious time during diagnosis and treatment of COVID-19 at home and health facility level. It also aims to highlight perceptions and experiences of family members of deceased regarding diagnosis and treatment of COVID-19 infection in hospital. Methods: A retrospective study was done to review COVID-19 deaths from 18th March to 5th June 2020 in Punjab, India. A total of 48 laboratory confirmed (RT-PCR) COVID-19 deaths were reported during this period. Socio demographic profile, sequence of events including clinical symptoms, medical aid taken, time of confirmation of diagnosis and treatment before death were noted from the records on a predesigned proforma. Family members of deceased were also interviewed and asked open-ended questions regarding their experiences at various health facilities. Descriptive statistics was presented in percentages, mean, and median. Results: Mean age of subjects was 56.3 +or- 18.3 years. Majority (82.2%) had three or more than three comorbidities. Median time from appearance of first symptom to first medical contact and confirmation of diagnosis was 1 and 5 days, respectively. On the basis of interview with deceased's relative, various themes like delay in diagnosis and treatment, dissatisfied with hospital system and lack of communication between relative and patient were generated. Conclusion: Presence of comorbidities was the most important risk factor. Health seeking behavior of patients immediately after appearance of symptoms was found to be satisfactory.

Publication Type

Journal article.

<475>

Accession Number

  20203563757

Author

  Rath, R. S.; Ayush Lohiya; Farhad Ahamed; Jeyashree Kathiresan; Suliankatchi, R. A.

Title

  Public health response to COVID-19 in selected countries - hits and misses.

Source

  Journal of Family Medicine and Primary Care; 2020. 9(11):5580-5587. 26 ref.

Publisher

  Medknow Publications

Location of Publisher

  Mumbai

Country of Publication

  India

Abstract

  Background: Lack of a cure or vaccine of COVID-19 forced us to rely on public health interventions (PHIs) for combating the pandemic. The main objective of the study to assess the PHI in selected countries and relate the various factors related to the intervention with the case load of the country. Methods: An ecological analysis was conducted using secondary data on PHIs and disease burden extracted from official documents and press releases of the respective countries. Disease transmission was described based on calculated doubling time. PHIs were classified into 14 categories within three domains. An intervention score was calculated to reflect the number and stringency of the PHIs. Correlations between intervention scores, daily new cases and doubling time were presented. Results: Brazil and the USA had the lowest intervention scores while South Korea had the highest scores. The median doubling time was negatively correlated with the rapidity of the escalation of the PHIs. Conclusion: Dynamic government policies and timely PHIs, which are locally relevant and ably supported by the public are key to successful containment of the COVID-19 pandemic.

Publication Type

  Journal article.

<476>

Accession Number

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470

20203563756

Author

Kapil Goel; Amit Arora; Tanveer Rehman; Phuntsog Angchuk; Rigzin Samphel; Tanvi Kiran; Padhi, B. K.; Vineeth Rajagopal; Thakur, J. S.

Title

The successful containment of COVID-19 outbreak in union territory of Ladakh, India, 2020.

Source

Journal of Family Medicine and Primary Care; 2020. 9(11):5574-5579. 20 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Objectives: A three-member central Rapid Response Team (RRT) was deputed to Union Territory of Ladakh on 26th March 2020, to assess the situation and support the preparedness measures including implementation of cluster containment plan and social distancing measures for coronavirus disease 2019 (COVID-19). Methods: Central RRT addressed the panchayat sarpanch and religious leaders, sensitized doctors and paramedical staff on COVID-19 situation; conducted situational analysis, review of records and logistics, key informant interviews of senior administrative and healthcare officials, focus group discussions with local community people and field visits to various hospitals, isolation centers, quarantine facilities, and containment zones. Results: A total of 14 COVID-19 cases with no deaths were reported and nine patients had recovered till 4 April 2020. The median (range) age of positive cases was found to be 32.5 (6 months-76 years) years and overall attack rate was 1.65 per 1000 population. Ladakh Government declared Chuchot Gongma, Yokma and Sankoo as the containment zones and deputed surveillance teams. A total of 2397 persons were quarantined and 496 samples were tested from Ladakh. COVID-19 sample testing, Srinagar-Leh highway opening and Iran pilgrimage returnees were the major challenges identified. Conclusions: The Ladakh government must continue the robust surveillance system and stringent strategies in key areas for management of COVID-19 namely - aggressive screening and testing, isolation, quarantine, hand hygiene, respiratory etiquettes and social distancing.

Publication Type

Journal article.

<477>

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471

Accession Number

 20203563753

Author

 Neeraja Meesala; Harsha, G. V. D.; Pradeep Kandikatla; Karteekvarma, P. V.; Nadakuditi, S. R.; Kakaraparthi, S. K.

Title

 Measuring the impact of COVID-19 on mental health as a preliminary procedure in primary care provision: a cross-sectional study using COVID-19 anxiety scale.

Source

 Journal of Family Medicine and Primary Care; 2020. 9(11):5554-5558. 30 ref.

Publisher

 Medknow Publications

Location of Publisher

 Mumbai

Country of Publication

 India

Abstract

 Background: It is imperative to acknowledge that COVID-19 poses significant burden on the psychological well-being of people. With implementation of lockdown and measures like quarantine, the mental health of people is affected, and the associated problems may range from depression to suicidal ideation. With this background, the aim of this study was to assess COVID-19 anxiety among general population of the state of Andhra Pradesh. Materials and Methods: This cross-sectional study assessed the COVID-19 anxiety among the population of Andhra Pradesh using COVID-19 Anxiety Scale (CAS-7), a seven-item validated psychometric instrument which assesses the cognitive, emotional, and physiological dimensions of COVID-19 anxiety, using a semantic differential scale. The final sample constituted 1,346 participants. Statistical analysis was done using SPSS version 20 software (IBM SPSS statistics for Windows version 20, Armonk, NY, USA). Results: The mean age of the study participants was 36.13 +or- 10.2 years, and 55.8% were males. The mean CAS-7 score in this study was found to be 18.9 +or- 6.4. The item with highest mean scores was: "How concerned are you when people cough or sneeze because of the fear that you may acquire COVID-19?" No significant differences in CAS-7 scores were found based on gender, educational qualification of the participants, while significant differences were observed based on place of residence, presence of COVID-19 affected individuals in close surroundings, tobacco, and alcohol consumption. Conclusion: The results of this study inform that it is imperative for authorities and health care professionals to focus on the mental health aspect of COVID-19 and arrange for necessary support mechanisms.

Publication Type

 Journal article.

<478>

Accession Number

 20203563744

Author

 Gupta, S. K.; Lakshmi, P. V. M.; Manmeet Kaur; Ashu Rastogi

Title

 Role of self-care in COVID-19 pandemic for people living with comorbidities of diabetes and hypertension.

Source

 Journal of Family Medicine and Primary Care; 2020. 9(11):5495-5501. 52 ref.

Publisher

 Medknow Publications

Location of Publisher

 Mumbai

Country of Publication

 India

Abstract

 People living with comorbidities especially chronic non-communicable disease (NCDs) like diabetes and hypertension are at greater risk of acquiring severe form of Corona Virus Disease (COVID-19) infection known to be caused by Severe Acute Respiratory Syndrome-CoV -2 (SARS-CoV-2) due to underlying immunodeficiency. The government has taken various public health measures to reduce the risk of infection, such as physical distancing, Information Education and Communication (IEC) messages regarding hand-washing, usage of masks, and avoidance of unnecessary travel including lockdown to combat the spread of disease. However, nationwide lockdown due to COVID-19 pandemic has also confronted the existing health care system (clinician centric approach) for the management of diabetes and hypertension in India. Using secondary source of data from specific website and search engine a review was done for existing guidelines and literature focusing on the various components of self-care management (patient-centered care) and highlights the importance of self-care management education to cope up with twin pandemic of COVID-19 and NCDs. An attempt was also made to highlight the use of eHealth to manage diabetes and hypertension which may act as a bridge to fill the gap between primary care physician and patient's amid lockdown and help physician to deliver comprehensive care for people suffering from comorbidities.

Publication Type

 Journal article.

<479>

Accession Number

 20203563742

Author

 Kumar, M. M.; Priya, K. P.; Panigrahi, S. K.; Utsav Raj; Pathak, V. K.

Title

 Impact of COVID-19 pandemic on adolescent health in India.

Source

 Journal of Family Medicine and Primary Care; 2020. 9(11):5484-5489. 54 ref.

Publisher

 Medknow Publications

Location of Publisher

 Mumbai

Country of Publication

 India

Abstract

 SARS CoV2 is an emerging infectious pandemic. The preemptive measures taken to curtail the spread has its effects far and wide across different sectors and all age groups. The most unspoken sufferers are adolescents. In this article, we have reflected on how adolescent issues addressed by the government's dynamism, have had collateral damage due to the COVID initiatives. Globally, around 89% are currently not in school because of COVID-19. They will pave a way to unforeseen collateral effects on the physical, social, psychological health, and future of the young minds. From an increase in school drop-outs, interrupted learning, worsening of the gender gap in education to technology dependence and addictions, this pandemic is going to unravel the uninvited social evils. The regular benefits of adolescents from the government have not been paid heed to. Supply of IFA tablets, sanitary napkins, provision of supplementary nutrition, health education, and implementation of immunization activities are a few of the services to mention which are being hampered. We have recommended a few strategies like establishing the peer educator system in disseminating COVID-related awareness, engaging them in a smooth public distribution system, and act as a potential linkage for the families in distress. We have proposed a few modus operandi like direct cash transfer or food supplements as take-home rations will be able to sustain the nutrition of the adolescents to keep the flow of uninterrupted amenities to adolescents in education, nutrition, mental health, personal hygiene, and other such sectors.

Publication Type

 Journal article.

<480>

Accession Number

 20203563529

Author

 McLoughlin, G. M.; Fleischhacker, S.; Hecht, A. A.; McGuirt, J.; Vega, C.; Read, M.; Colon-Ramos, U.

Title

 Feeding students during COVID-19-related school closures: a nationwide assessment of initial responses.

Source

 Journal of Nutrition Education and Behavior; 2020. 52(12):1120-1130.

Publisher

 Elsevier Inc.

Location of Publisher

 Philadelphia

Country of Publication

 USA

Abstract

 Objective: To conduct a nationwide assessment of child nutrition administrative agencies' responses to meal service provision during coronavirus disease 2019-related school closures. Design: Systematic coding of government websites (February-May 2020) regarding school meal provision in all 50 US states and the District of Columbia, 5 US territories, and the US Department of Interior Bureau of Indian Education. Participants: All US jurisdictions (N = 57). Variables Measured: Seven coding criteria were established to assess the strengths and weaknesses of jurisdictions' responses derived from emergency declarations, school closure announcements, and government websites on emergency school meals. Analysis: Descriptive analyses. Results: Most jurisdictions mentioned school meal provisions in school closure announcements (76.4%), provided easily interpretable information and/or maps about meal sites (57.9%), and included detailed information about school meal provisions in their coronavirus disease 2019 landing webpages (n = 26, 51%). Fewer provided updated and comprehensive implementation guidance (39.3%), referenced school closures in emergency declarations (37.5%), had clear communication/outreach to families (21.4%), or partnered with antihunger organizations (11.6%). Conclusions and Implications: Understanding initial jurisdictions' approaches are critical to current and future emergency planning during school closures and reopening to help address food insecurity better, limit disease transmission, and prevent health disparities, particularly among at-risk populations.

Publication Type

 Journal article.

<481>

Accession Number

  20203563397

Author

  Mora, O.; Mouel, C. le; Lattre-Gasquet, M. de; Donnars, C.; Dumas, P.; Rechauchere, O.; Brunelle, T.; Manceron, S.; Marajo-Petitzon, E.; Moreau, C.; Barzman, M.; Forslund, A.; Marty, P.

Title

  Exploring the future of land use and food security: a new set of global scenarios.

Source

  PLoS ONE; 2020. 15(7). 90 ref.

Publisher

  Public Library of Sciences (PLoS)

Location of Publisher

  San Francisco

Country of Publication

  USA

Abstract

  Facing a growing and more affluent world population, changing climate and finite natural resources, world food systems will have to change in the future. The aim of the Agrimonde-Terra foresight study was to build global scenarios linking land use and food security, with special attention paid to overlooked aspects such as nutrition and health, in order to help explore the possible future of the global food system. In this article, we seek to highlight how the resulting set of scenarios contributes to the debate on land use and food security and enlarges the range of possible futures for the global food system. We highlight four main contributions. Combining a scenario building method based on morphological analysis and quantitative simulations with a tractable and simple biomass balance model, the proposed approach improves transparency and coherence between scenario narratives and quantitative assessment. Agrimonde-Terra's scenarios comprise a wide range of alternative diets, with contrasting underlying nutritional and health issues, which accompany contrasting urbanization and rural transformation processes, both dimensions that are lacking in other sets of global scenarios. Agrimonde-Terra's scenarios share some similarities with existing sets of global scenarios, notably the SSPs, but are usually less optimistic regarding agricultural land expansion up to 2050. Results suggest that changing global diets toward healthier patterns could also help to limit the expansion in agricultural land area. Agrimonde-Terra's scenarios enlarge the scope of possible futures by proposing two pathways that are uncommon in other sets of global scenarios. The first proposes to explore possible reconnection of the food industry and regional production within supranational regional blocs. The second means that we should consider that a 'perfect storm', induced by climate change and an ecological crisis combined with social and economic crises, is still possible. Both scenarios should be part of the debate as the current context of the COVID-19 pandemic shows.

Publication Type

  Journal article.

<482>

Accession Number

 20203563387

Author

 Skorka, P.; Grzywacz, B.; Moron, D.; Lenda, M.

Title

 The macroecology of the COVID-19 pandemic in the Anthropocene.

Source

 PLoS ONE; 2020. 15(7). 84 ref.

Publisher

 Public Library of Sciences (PLoS)

Location of Publisher

 San Francisco

Country of Publication

 USA

Abstract

 Severe acute respiratory syndrome coronavirus 2, the virus that causes coronavirus disease 2019 (COVID-19), has expanded rapidly throughout the world. Thus, it is important to understand how global factors linked with the functioning of the Anthropocene are responsible for the COVID-19 outbreak. We tested hypotheses that the number of COVID-19 cases, number of deaths and growth rate of recorded infections: (1) are positively associated with population density as well as (2) proportion of the human population living in urban areas as a proxies of interpersonal contact rate, (3) age of the population in a given country as an indication of that population's susceptibility to COVID-19; (4) net migration rate and (5) number of tourists as proxies of infection pressure, and negatively associated with (5) gross domestic product which is a proxy of health care quality. Data at the country level were compiled from publicly available databases and analysed with gradient boosting regression trees after controlling for confounding factors (e.g. geographic location). We found a positive association between the number of COVID-19 cases in a given country and gross domestic product, number of tourists, and geographic longitude. The number of deaths was positively associated with gross domestic product, number of tourists in a country, and geographic longitude. The effects of gross domestic product and number of tourists were non-linear, with clear thresholds above which the number of COVID-19 cases and deaths increased rapidly. The growth rate of COVID-19 cases was positively linked to the number of tourists and gross domestic product. The growth rate of COVID-19 cases was negatively associated with the mean age of the population and geographic longitude. Growth was slower in less urbanised countries. This study demonstrates that the characteristics of the human population and high mobility, but not population density, may help explain the global spread of the virus. In addition, geography, possibly via climate, may play a role in the pandemic. The unexpected

positive and strong association between gross domestic product and number of cases, deaths, and growth rate suggests that COVID-19 may be a new civilisation disease affecting rich economies.

Publication Type

Journal article.

<483>

Accession Number

20203563356

Author

Hager, E. N.; Odetokun, I. A.; Bolarinwa, O.; Zainab, A.; Okechukwu, O.; Al-Mustapha, A. I.

Title

Knowledge, attitude, and perceptions towards the 2019 Coronavirus Pandemic: a bi-national survey in Africa.

Source

PLoS ONE; 2020. 15(7). 29 ref.

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

The current Coronavirus (COVID-19) pandemic has impacted and changed lives on a global scale since its emergence and spread from China in late 2019. It has caused millions of infections, and thousands of deaths worldwide. However, the control of this pandemic still remains unachievable in many African countries including Egypt and Nigeria, despite the application of some strict preventive and control measures. Therefore, this study assessed the knowledge, attitude, and perceptions of Egyptians and Nigerians towards the COVID-19 pandemic. This study was designed as a cross-sectional community-based questionnaire survey in both countries. Participants' demography, knowledge, attitude, and perceptions towards the COVID-19 outbreak were obtained using a convenience sampling technique. Data collected were subjected to descriptive statistics and logistic regression analysis. A total of 1437 respondents were included in this preliminary report. The mean knowledge score was 14.7+or-2.3. The majority of the respondents (61.6%) had a satisfactory knowledge of the disease. Age (18-39 years), education (College/bachelors), and background of respondents were factors influencing knowledge levels. The

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478

attitude of most respondents (68.9%) towards instituted preventive measures was satisfactory with an average attitude score of 6.9 +or- 1.2. The majority of the respondents (96%) practiced self-isolation and social-distancing but only 36% follow all health recommendations. The perception of most respondents (62.1%) on the global efforts at controlling the virus and preventing further spread was satisfactory with an average score of 10.9 +or- 2.7. Only 22% of the respondents were satisfied with their country's handling of the pandemic. An apprehensive understanding of the current status in Africa through studies like KAP is crucial to avoid Africa being the next epicenter of the pandemic. For the populace to follow standard infection prevention and control measures adequately, governments need to gain the trust of citizens by strengthening the health systems and improving surveillance activities in detecting cases, to offer the optimum health services to their communities.

Publication Type

  Journal article.

<484>

Accession Number

  20203563291

Author

  Barasa, E. W.; Ouma, P. O.; Okiro, E. A.

Title

  Assessing the hospital surge capacity of the Kenyan health system in the face of the COVID-19 pandemic.

Source

  PLoS ONE; 2020. 15(7). 31 ref.

Publisher

  Public Library of Sciences (PLoS)

Location of Publisher

  San Francisco

Country of Publication

  USA

Abstract

  Introduction: The COVID-19 pandemic will test the capacity of health systems worldwide and especially so in low- and middle-income countries. The objective of this study was to assess the surge capacity of the Kenyan of the Kenyan health system in terms of general hospital and ICU beds in the face of the COVID-19 pandemic. Methods: We assumed that 2% of the Kenyan population get symptomatic infection by SARS-Cov-2 based on modelled estimates for Kenya and determined the health system surge capacity for COVID-

19 under three transmission curve scenarios, 6, 12, and 18 months. We estimated four measures of hospital surge capacity namely: (1) hospital bed surge capacity (2) ICU bed surge capacity (3) Hospital bed tipping point, and (5) ICU bed tipping point. We computed this nationally and for all the 47 county governments. Results: The capacity of Kenyan hospitals to absorb increases in caseload due to COVID-19 is constrained by the availability of oxygen, with only 58% of hospital beds in hospitals with oxygen supply. There is substantial variation in hospital bed surge capacity across counties. For example, under the 6 months transmission scenario, the percentage of available general hospital beds that would be taken up by COVID-19 cases varied from 12% Tharaka Nithi county, to 145% in Trans Nzoia county. Kenya faces substantial gaps in ICU beds and ventilator capacity. Only 22 out of the 47 counties have at least 1 ICU unit. Kenya will need an additional 1,511 ICU beds and 1,609 ventilators (6 months transmission curve) to 374 ICU beds and 472 ventilators (18 months transmission curve) to absorb caseloads due to COVID-19. Conclusion: Significant gaps exist in Kenya's capacity for hospitals to accommodate a potential surge in caseload due to COVID-19. Alongside efforts to slow and supress the transmission of the infection, the Kenyan government will need to implement adaptive measures and additional investments to expand the hospital surge capacity for COVID-19. Additional investments will however need to be strategically prioritized to focus on strengthening essential services first, such as oxygen availability before higher cost investments such as ICU beds and ventilators.

Publication Type

  Journal article.

<485>

Accession Number

  20203563181

Author

  Zhang BiCheng; Zhou XiaoYang; Qiu YanRu; Song YuXiao; Feng Fan; Feng Jia; Song QiBin; Jia QingZhu; Wang Jun

Title

  Clinical characteristics of 82 cases of death from COVID-19.

Source

  PLoS ONE; 2020. 15(7). 22 ref.

Publisher

  Public Library of Sciences (PLoS)

Location of Publisher

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Country of Publication

  USA

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Abstract

A recently developed pneumonia caused by SARS-CoV-2 bursting in Wuhan, China, has quickly spread across the world. We report the clinical characteristics of 82 cases of death from COVID-19 in a single center. Clinical data on 82 death cases laboratory-confirmed as SARS-CoV-2 infection were obtained from a Wuhan local hospital's electronic medical records according to previously designed standardized data collection forms. All patients were local residents of Wuhan, and a large proportion of them were diagnosed with severe illness when admitted. Due to the overwhelming of our system, a total of 14 patients (17.1%) were treated in the ICU, 83% of deaths never received Critical Care Support, only 40% had mechanical ventilation support despite 100% needing oxygen and the leading cause of death being pulmonary. Most of the patients who died were male (65.9%). More than half of the patients who died were older than 60 years (80.5%), and the median age was 72.5 years. The bulk of the patients who died had comorbidities (76.8%), including hypertension (56.1%), heart disease (20.7%), diabetes (18.3%), cerebrovascular disease (12.2%), and cancer (7.3%). Respiratory failure remained the leading cause of death (69.5%), followed by sepsis/MOF (28.0%), cardiac failure (14.6%), hemorrhage (6.1%), and renal failure (3.7%). Furthermore, respiratory, cardiac, hemorrhagic, hepatic, and renal damage were found in 100%, 89%, 80.5%, 78.0%, and 31.7% of patients, respectively. On admission, lymphopenia (89.2%), neutrophilia (74.3%), and thrombocytopenia (24.3%) were usually observed. Most patients had a high neutrophil-to-lymphocyte ratio of >5 (94.5%), high systemic immune-inflammation index of >500 (89.2%), and increased C-reactive protein (100%), lactate dehydrogenase (93.2%), and D-dimer (97.1%) levels. A high level of IL-6 (>10 pg/ml) was observed in all detected patients. The median time from initial symptoms to death was 15 days (IQR 11-20), and a significant association between aspartate aminotransferase (p = 0.002), alanine aminotransferase (p = 0.037) and time from initial symptoms to death was remarkably observed. Older males with comorbidities are more likely to develop severe disease and even die from SARS-CoV-2 infection. Respiratory failure is the main cause of COVID-19, but the virus itself and cytokine release syndrome-mediated damage to other organs, including cardiac, renal, hepatic, and hemorrhagic damage, should be taken seriously as well.

Publication Type

Journal article.

<486>

Accession Number

20203563176

Author

Lenzen, M.; Li MengYu; Malik, A.; Pomponi, F.; Sun YaYen; Wiedmann, T.; Faturay, F.; Fry, J.; Gallego, B.; Geschke, A.; Gomez-Paredes, J.; Kanemoto, K.; Kenway, S.; Nansai, K.; Prokopenko, M.; Wakiyama, T.; Wang YaFei; Yousefzadeh, M.

Title

Global socio-economic losses and environmental gains from the Coronavirus pandemic.

Source

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481

Publisher

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

On 3 April 2020, the Director-General of the WHO stated: "[COVID-19] is much more than a health crisis. We are all aware of the profound social and economic consequences of the pandemic (WHO, 2020)". Such consequences are the result of counter-measures such as lockdowns, and world-wide reductions in production and consumption, amplified by cascading impacts through international supply chains. Using a global multi-regional macro-economic model, we capture direct and indirect spill-over effects in terms of social and economic losses, as well as environmental effects of the pandemic. Based on information as of May 2020, we show that global consumption losses amount to 3.8$tr, triggering significant job (147 million full-time equivalent) and income (2.1$tr) losses. Global atmospheric emissions are reduced by 2.5Gt of greenhouse gases, 0.6Mt of PM2.5, and 5.1Mt of SO_2 and NO_x. While Asia, Europe and the USA have been the most directly impacted regions, and transport and tourism the immediately hit sectors, the indirect effects transmitted along international supply chains are being felt across the entire world economy. These ripple effects highlight the intrinsic link between socio-economic and environmental dimensions, and emphasise the challenge of addressing unsustainable global patterns. How humanity reacts to this crisis will define the post-pandemic world.

Publication Type

Journal article.

<487>

Accession Number

20203562981

Author

Bao LinLin; Gao Hong; Deng Wei; Lv Qi; Yu HaiSheng; Liu MingYa; Yu Pin; Liu JiangNing; Qu YaJin; Gong ShuRan; Lin KaiLi; Qi FeiFei; Xu YanFeng; Li FengLi; Xiao Chong; Xue Jing; Song ZhiQi; Xiang ZhiGuang; Wang Guanpeng; Wang ShunYi; Liu Xing; Zhao WenJie; Han YunLin; Wei Qiang; Qin Chuan

Title

Transmission of severe acute respiratory syndrome coronavirus 2 via close contact and respiratory droplets among human angiotensin-converting enzyme 2 mice.

Source

Journal of Infectious Diseases; 2020. 222(4):551-555. 4 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

We simulated 3 transmission modes, including close-contact, respiratory droplets and aerosol routes, in the laboratory. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can be highly transmitted among naive human angiotensin-converting enzyme 2 (hACE2) mice via close contact because 7 of 13 naive hACE2 mice were SARS-CoV-2 antibody seropositive 14 days after being introduced into the same cage with 3 infected-hACE2 mice. For respiratory droplets, SARS-CoV-2 antibodies from 3 of 10 naive hACE2 mice showed seropositivity 14 days after introduction into the same cage with 3 infected-hACE2 mice, separated by grids. In addition, hACE2 mice cannot be experimentally infected via aerosol inoculation until continued up to 25 minutes with high viral concentrations.

Publication Type

Journal article.

<488>

Accession Number

20203562807

Author

Lu Yu; Li LiMin; Ren Shan; Liu Xin; Zhang LanZuo; Li Wei; Yu HongLi

Title

Comparison of the diagnostic efficacy between two PCR test kits for SARS-CoV-2 nucleic acid detection.

Source

Journal of Clinical Laboratory Analysis; 2020. 34(10). 13 ref.

Publisher

Wiley

Location of Publisher

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Hoboken

Country of Publication

　USA

Abstract

　Background: To compare the diagnostic efficacy between two different real-time reverse transcription polymerase chain reaction (RT-PCR) test kits for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) nucleic acid detection and provide references for laboratories. Methods: Throat swab samples from 18 hospitalized patients were clinically diagnosed with coronavirus disease 2019 (COVID-19) and 100 hospitalized patients without COVID-19 were collected. SARS-CoV-2 nucleic acid was detected in throat swab samples with RT-PCR test kits from Sansure Biotech Inc (Hunan, China) and Shanghai BioGerm Medical Biotechnology Co., Ltd.(Shanghai, China). The sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and kappa value were analyzed, and three parallel tests were performed with three weakly positive samples. Results: The sensitivity, specificity, PPV, NPV, and kappa value of the Sansure PCR kit were 0.833, 1.000, 1.000, 0.971, and 0.894, respectively, and the sensitivity, specificity, PPV, NPV, and kappa value of the BioGerm PCR kit were 0.944, 1.000, 1.000, 0.990, and 0.966, respectively. For the three parallel tests, the coefficient of variation value of the BioGerm PCR kit in all three samples was the smallest for both the ORF1ab and N gene. Conclusion: The detection efficacy of the BioGerm PCR kit for SARS-CoV-2 nucleic acid detection was relatively higher than that of the Sansure PCR kit.

Publication Type

　Journal article.

<489>

Accession Number

　20203562688

Author

　Genereux, M.; Schluter, P. J.; Hung, K. K.; Wong, C. S.; Mok PuiYin [Mok, P. Y. C.]; O'Sullivan, T.; David, M. D.; Carignan, M. E.; Blouin-Genest, G.; Champagne-Poirier, O.; Champagne, E.; Burlone, N.; Qadar, Z.; Herbosa, T.; Ribeiro-Alves, G.; Law, R.; Murray, V.; Chan, E. Y. Y.; Pignard-Cheynel, N.; Salerno, S.; Lits, G.; D'Haenens, L.; Coninck, D. de; Matthys, K.; Roy, M.

Title

　One virus, four continents, eight countries: an interdisciplinary and international study on the psychosocial impacts of the COVID-19 pandemic among adults.

Source

　International Journal of Environmental Research and Public Health; 2020. 17(22). 29 ref.

Publisher

　MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The novel coronavirus disease 2019 (COVID-19) pandemic brought about several features that increased the sense of fear and confusion, such as quarantine and financial losses among other stressors, which may have led to adverse psychosocial outcomes. The influence of such stressors took place within a broader sociocultural context that needs to be considered. The objective was to examine how the psychological response to the pandemic varied across countries and identify which risk/protective factors contributed to this response. An online survey was conducted from 29 May 2020-12 June 2020, among a multinational sample of 8806 adults from eight countries/regions (Canada, United States, England, Switzerland, Belgium, Hong Kong, Philippines, New Zealand). Probable generalized anxiety disorder (GAD) and major depression episode (MDE) were assessed. The independent role of a wide range of potential factors was examined using multilevel logistic regression. Probable GAD and MDE were indicated by 21.0% and 25.5% of the respondents, respectively, with an important variation according to countries/regions (GAD: 12.2-31.0%; MDE: 16.7-32.9%). When considered together, 30.2% of the participants indicated probable GAD or MDE. Several factors were positively associated with a probable GAD or MDE, including (in descending order of importance) weak sense of coherence (SOC), lower age, false beliefs, isolation, threat perceived for oneself/family, mistrust in authorities, stigma, threat perceived for country/world, financial losses, being a female, and having a high level of information about COVID-19. Having a weak SOC yielded the highest adjusted odds ratio for probable GAD or MDE (3.21; 95% confidence interval (CI): 2.73-3.77). This pandemic is having an impact on psychological health. In some places and under certain circumstances, however, people seem to be better protected psychologically. This is a unique opportunity to evaluate the psychosocial impacts across various sociocultural backgrounds, providing important lessons that could inform all phases of disaster risk management.

Publication Type

  Journal article.

<490>

Accession Number

  20203562685

Author

  Ho LongKwan [Ho, L. K. L.]; Li HoCheung [Li, H. C. W.]; Cheung AnkieTan; Xia Wei; Wang ManPing; Cheung YeeTak [Cheung, Y. T. D.]; Lam TaiHing

Title

  Impact of COVID-19 on the Hong Kong youth quitline service and quitting behaviors of its users.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 20 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Tobacco use is a possible risk factor for contracting and spreading COVID-19. We aimed to describe the impact of the COVID-19 pandemic on the Youth Quitline service and quitting behaviors of its users in Hong Kong. We conducted a telephone survey involving 201 participants of the Youth Quitline service, and retrospectively analyzed the operation and use of Quitline since the COVID-19 outbreak in Hong Kong. The number of incoming calls to the Youth Quitline and the participants' quit rate has increased since the COVID-19 outbreak in Hong Kong. Many participants (68%) did not realize that tobacco use potentially increased their risk for developing and spreading COVID-19; however, 43% agreed that the pandemic motivated their intention to quit, and 83% changed their smoking habits during the pandemic. These changes were mainly due to wearing masks (30%), closure of bars/pubs (25%), suspension of classes (14%), and being unable to socialize with friends (24%). Overall, 58% reduced their tobacco use; of these participants, 66% reported a 50% reduction in daily cigarette consumption. The participants reduced their smoking during the COVID-19 pandemic despite lacking knowledge about the potentially increased risk for contracting COVID-19 from continued smoking. The pandemic could create new opportunities to motivate young smokers to quit smoking, especially those seeking support for smoking cessation, and may further contribute to reducing the risks posed by COVID-19.

Publication Type

Journal article.

<491>

Accession Number

20203562684

Author

Kim JungHyun; Kim JeeYoung; Kim WooJin; Choi YungHyun; Yang SeRan; Hong SeokHo

Title

Diesel particulate matter 2.5 induces epithelial-to-mesenchymal transition and upregulation of SARS-CoV-2 receptor during human pluripotent stem cell-derived alveolar organoid development.

Source

Publisher

Location of Publisher

Country of Publication

Abstract

Growing evidence links prenatal exposure to particulate matter (PM2.5) with reduced lung function and incidence of pulmonary diseases in infancy and childhood. However, the underlying biological mechanisms of how prenatal PM2.5 exposure affects the lungs are incompletely understood, which explains the lack of an ideal in vitro lung development model. Human pluripotent stem cells (hPSCs) have been successfully employed for in vitro developmental toxicity evaluations due to their unique ability to differentiate into any type of cell in the body. In this study, we investigated the developmental toxicity of diesel fine PM (dPM2.5) exposure during hPSC-derived alveolar epithelial cell (AEC) differentiation and three-dimensional (3D) multicellular alveolar organoid (AO) development. We found that dPM2.5 (50 and 100 g/mL) treatment disturbed the AEC differentiation, accompanied by upregulation of nicotinamide adenine dinucleotide phosphate oxidases and inflammation. Exposure to dPM2.5 also promoted epithelial-to-mesenchymal transition during AEC and AO development via activation of extracellular signal-regulated kinase signaling, while dPM2.5 had no effect on surfactant protein C expression in hPSC-derived AECs. Notably, we provided evidence, for the first time, that angiotensin-converting enzyme 2, a receptor to mediate the severe acute respiratory syndrome coronavirus clade 2 (SARS-CoV-2) entry into target cells, and the cofactor transmembrane protease serine 2 were significantly upregulated in both hPSC-AECs and AOs treated with dPM2.5. In conclusion, we demonstrated the potential alveolar development toxicity and the increase of SARS-Cov-2 susceptibility of PM2.5. Our findings suggest that an hPSC-based 2D and 3D alveolar induction system could be a useful in vitro platform for evaluating the adverse effects of environmental toxins and for virus research.

Publication Type

Journal article.

<492>

Accession Number

20203562671

Author

Kim, Y. J.; Kim, E. S.

Title

Relationship between phobic anxiety in work and leisure activity situations, and optimistic bias associated with COVID-19 among South Koreans.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 53 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Because of the ongoing COVID-19 pandemic, the public is unable to maintain a proper balance between work and leisure, and an increase in community-based infections is causing severe phobic anxiety. Therefore, the present study investigated the differences in phobic anxiety between work and leisure activities according to optimistic bias among 533 South Korean citizens. Frequency analysis, descriptive statistical analysis, t-tests, and a one-way analysis of variance were conducted to examine the data. The results showed that for leisure activities, women showed a higher perception of phobic anxiety. In addition, the group showing high optimistic bias had a higher perception of phobic anxiety in both work and leisure activity situations. Therefore, support measures to lower phobic anxiety among women are needed at the government level, while support and interest from family members are needed at home. Moreover, local governments must ensure active involvement to mitigate phobic anxiety among individuals, and measures are needed to more actively implement infectious disease prevention behaviors.

Publication Type

Journal article.

<493>

Accession Number

20203562641

Author

Serralta, F. B.; Zibetti, M. R.; Evans, C.

Title

Psychological distress of university workers during COVID-19 pandemic in Brazil.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 38 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The study aimed to explore mental distress during COVID-19 quarantine in a sample of university workers in Brazil. The survey included sets of questions about demographics, health, and support, an open question about major concerns, and the Clinical Outcome Routine Evaluation (CORE-OM), a measure of mental distress. A total of 407 professionals, mean age 40, SD 11.2, fulfilling social distancing (99%) participated in the study. Participants were mostly female (67.8%) and married (64.8%). Using the Consensual Qualitative Research process for simple qualitative data (CQR-M), the main areas of concern were grouped into six domains, as follows: work, health, isolation, personal life and routine, social environment, and future. Many responses were multiple. They form categories indicating specific concerns within these domains. Quantitative data were analyzed by identifying the simple effects of potential predictors of mental distress. The results indicated medium effects of help with household chores (2=0.06, 95% confidence interval (CI) (0.022-0.095)), psychiatric treatment (2=0.06, CI (0.030-0.110)), age (2=0.12, CI (0.070-0.170)), and physical exercise (2=0.12, CI (0.079-0.180)). Having someone available to listen was the only variable with a large effect associated with reduced mental suffering (2=0.18; CI (0.118-0.227)). Psychological experiences of the pandemic are multifaceted and complex. Thus, substantially larger surveys, with both quantitative and qualitative components, are needed.

Publication Type

Journal article.

<494>

Accession Number

20203562640

Author

Aida Kalok; Shalisah Sharip; Abdul Muzhill, A. H.; Zulkifli Md Zainuddin; Mohamad Nasir Shafiee

Title

The psychological impact of movement restriction during the COVID-19 outbreak on clinical undergraduates: a cross-sectional study.

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Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 34 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 pandemic has resulted in a Movement Control Order (MCO) in Malaysia and the subsequent closure of all educational institutions. We aimed to examine the psychological impact of the MCO among clinical undergraduates. A cross-sectional study was conducted using self-reported questionnaires that were distributed online using the Depression, Anxiety and Stress Scale-21 (DASS 21), Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS), and the newly designed MCO effect questionnaire. Seven hundred seventy-two students completed the survey. The prevalence of psychological distress was 52.8%, with around 60% of respondents reporting disruption to their daily lives. Older ($p = 0.015$) and more senior students ($p < 0.001$) were less likely to be anxious than their younger and junior counterparts, respectively. A greater number of social support (three or more) was linked to a lower score of depression ($p = 0.005$) and stress ($p = 0.045$). Undergraduates who received family support demonstrated lower depression scores ($p = 0.037$) and higher mental wellbeing ($p = 0.020$) compared to those without. Government support was independently associated with a lesser risk of depressive symptoms (Adjusted odds ratio, AOR 0.68; 95% confidence interval, CI 0.47-0.99) and a greater sense of mental wellbeing (AOR 1.54; 95% CI 1.06-2.22). The present finding provides evidence of a high prevalence of psychological distress among clinical undergraduates during the COVID-19 pandemic. Appropriate social support is important in alleviating anxiety and stress and promoting greater mental wellbeing amongst students during the nationwide quarantine.

Publication Type

Journal article.

<495>

Accession Number

20203562637

Author

Hategan, C. D.; Curea-Pitorac, R. I.; Hategan, V. P.

Title

Responsible communication of Romanian companies for ensuring public health in a COVID-19 pandemic context.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 74 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 pandemic has forced companies to respond to the threat of this risk and innovate in corporate governance. In order to reduce the risk of illness, one of the most applied measures by all companies was social distancing, but to avoid human interaction, companies had to adapt their communication strategies. The objective of the paper is to assess the risk management of Romanian-listed companies associated with COVID-19 focusing on their business communication with shareholders and stakeholders. To emphasis the communication we have chosen to analyze all public reports during the state of emergency of the companies listed on the main market at the Bucharest Stock Exchange. The empirical analysis consists of a panel data econometric model using maximum likelihood random-effects regression and a logistical regression to highlight the correlations between the dependent variables Public Reports and Business Continuity Plan and the analyzed independent variables. The study showed that in most cases, the companies had at least one public report, especially the one related to the annual shareholders meeting, a percentage of 21% of companies had two public reports, and only 17% of companies have published three or more reports. The companies that communicated the most were the ones belonging to the premium trading category, and the number of published reports was influenced by the communication evaluation indicator, profitability and by the announcement of the donations made.

Publication Type

Journal article.

<496>

Accession Number

20203562616

Author

Zeinalnezhad, M.; Chofreh, A. G.; Goni, F. A.; Klemes, J. J.; Sari, E.

Title

Simulation and improvement of patients' workflow in heart clinics during COVID-19 pandemic using timed coloured petri nets.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 37 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 epidemic has spread across the world within months and creates multiple challenges for healthcare providers. Patients with cardiovascular disease represent a vulnerable population when suffering from COVID-19. Most hospitals have been facing difficulties in the treatment of COVID-19 patients, and there is a need to minimise patient flow time so that staff health is less endangered, and more patients can be treated. This article shows how to use simulation techniques to prepare hospitals for a virus outbreak. The initial simulation of the current processes of the heart clinic first identified the bottlenecks. It confirmed that the current workflow is not optimal for COVID-19 patients; therefore, to reduce waiting time, three optimisation scenarios are proposed. In the best situation, the discrete-event simulation of the second scenario led to a 62.3% reduction in patient waiting time. This is one of the few studies that show how hospitals can use workflow modelling using timed coloured Petri nets to manage healthcare systems in practice. This technique would be valuable in these challenging times as the health of staff, and other patients are at risk from the nosocomial transmission.

Publication Type

Journal article.

<497>

Accession Number

20203562608

Author

Humer, E.; Schimbock, W.; Kisler, I. M.; Schadenhofer, P.; Pieh, C.; Probst, T.

Title

How the COVID-19 pandemic changes the subjective perception of meaning related to different areas of life in Austrian psychotherapists and patients.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 39 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

We assessed psychotherapists' and patients' ratings of their subjective perception of meaning related to different areas of life before the COVID-19 pandemic as compared to the time during the COVID-19 pandemic. In a quantitative cross-sectional study, Austrian psychotherapists (N = 222) were recruited by e-mail, who in turn recruited their patients (N = 139). Therapists and patients were asked to rate the meaning of different areas of life before as well as during the COVID-19 crisis. The psychotherapists showed an overall higher rating of the importance of areas of life compared to their patients ($p < 0.001$). The rating of the importance of the domains of living was differently affected by the COVID-19 situation ($p < 0.001$). While the meaning of physical and mental health during COVID-19 was rated higher than before, the opposite was observed for work ($p < 0.001$). No differences were found for relationships and friends, as well as for hobbies. As no interactions between perspective (therapists vs. patients), area of life, and time point (before vs. during COVID-19) were observed, it can be concluded that the COVID-19 situation changed the subjective attribution of meaning concerning different aspects of life similarly in therapists as well as patients. While mental and physical health gained subjective importance, the opposite was observed for work.

Publication Type

Journal article.

<498>

Accession Number

20203562587

Author

He Ju; Dang YunXiao; Zhang WenZhong; Chen Li

Title

Perception of urban public safety of floating population with higher education background: evidence from urban China.

Source

International Journal of Environmental Research and Public Health; 2020. 17(22). 65 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The Corona Virus Disease 2019 (COVID-19) outbreak caused people to pay significant attention to urban public safety issues. The city's public safety is an important part of the high-quality development and the construction of a liveable city. To understand whether and how factors at different levels affect the public security of particular group of people in a city. This study uses data from an extensive questionnaire survey by the Ministry of Housing and Urban-Rural Development of the People's Republic of China (MOHURD) in 11 cities. This study uses the descriptive statistical method and Hierarchical Linear Model (HLM) to study the perception of urban public safety (PUPS) and its influencing factors of floating population with higher education background (FPHEB) from the three levels of city-district-individual. The study finds that (1) when FPHEB is placed in a district and a city at the same time, the influence of the city on PUPS is greater than that of the district; (2) the urban's infrastructure security and economic development security positively affect the floating population; (3) the GDP and the number of stadiums and hospitals of the district are significantly positively correlated with the PUPS of the FPHEB, whereas the increase of population density and road density have negative effects; (4) FPHEB with distinct attributes will make their PUPS also different. This study is not only a reflection on the construction of urban public security after the COVID-19 outbreak but can also be used as a theoretical reference for the government in constructing urban public security. This study also enriches the research on the floating population and makes good scientific suggestions for the city's PUPS of the FPHEB. The research results can provide a better reference for the government's urban safety construction from the perspective of residents' perception.

Publication Type

Journal article.

<499>

Accession Number

20203562519

Author

Konakci, G.; Ozgursoy Uran, B. N.; Erkin, O.

Title

In the Turkish news: coronavirus and "alternative & complementary" medicine methods.

Source

Complementary Therapies in Medicine; 2020. 53. 58 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background and Object: The object of this study is to analyze the complementary and alternative treatments for the prevention of COVID-19/Coronavirus in the Turkish news. Material and Method: The sample of this descriptive study consisted of 160 news articles published between 11 March and 11 April 2020 on the websites of the three highest-circulating newspapers throughout the nation. A quantitative media context analysis method, consisting of 14 questions and 2 sections was employed to evaluate news on the newspapers. The data was analyzed using SPSS 21.0 statistical package program using numbers and percentages. Results: Forty percent of the news analyzed within the scope of the study were obtained from the newspaper's own news, reporter or columnist, 56.9% were informative, 6.3% were advisory and critical against the CAT methods. 95% of the news included preventive or protective methods against COVID-19.77.5% of the complementary and alternative medicine methods mentioned in the news were biologically-based, 20.6% were mind-body practices. It was determined that 85.0% of the benefits, harm and side effects of the methods mentioned in the news were announced, but their impact on COVID-19 is not clarified (78.1%), and there was insufficient information provided about the method and dosage of the method. It was seen that all news contained information on protection against COVID-19 or prevention of COVID19. Conclusion: It was concluded that the sources and methods and the number of news items changed from one newspaper to another, the news lacked a scientific basis, and as a result, it might lead to misinterpretations among the public. There were different opinions among the experts in the proposed or criticized complementary and alternative medicine methods. It was observed that there was an increase in the number of news items related to using complementary and alternative medicine methods for the treatment of COVID19, a clear and easily understandable language was used in the news, but the content and sources of the news were insufficient in conveying the correct and scientific information. It was reported by previous literature potential interactions between herbal remedies/dietary supplements and prescribed drugs, complications of medical conditions and some adverse effects cause of CAM usage.

Publication Type

Journal article.

<500>

Accession Number

20203562120

Author

Chang PeiChen [Chang, P. C. J.]; Pariante, C. M.; Su KuanPin

Title

Omega-3 fatty acids in the psychological and physiological resilience against COVID-19.

Source

Prostaglandins, Leukotrienes and Essential Fatty Acids; 2020. 161. 21 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

As the infected cases of COVID-19 reach more than 20 million with more than 778,000 deaths globally, an increase in psychiatric disorders including anxiety and depression has been reported. Scientists globally have been searching for novel therapies and vaccines to fight against COVID-19. Improving innate immunity has been suggested to block progression of COVID-19 at early stages, while omega-3 polyunsaturated fatty acids (n-3 PUFAs) have been shown to have immunomodulation effects. Moreover, n-3 PUFAs have also been shown to improve mood disorders, thus, future research is warranted to test if n-3 PUFAs may have the potential to improve our immunity to counteract both physical and mental impact of COVID-19.

Publication Type

Journal article.

<501>

Accession Number

20203561976

Author

Choi, E. M.; Chu, D. K. W.; Cheng, P. K. C.; Tsang, D. N. C.; Peiris, M.; Bausch, D. G.; Poon, L. L. M.; Watson-Jones, D.

Title

In-flight transmission of SARS-CoV-2.

Source

Emerging Infectious Diseases; 2020. 26(11):2713-2716. 13 ref.

Publisher

National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

Four persons with severe acute respiratory syndrome coronavirus 2 infection had traveled on the same flight from Boston, Massachusetts, USA, to Hong Kong, China. Their virus genetic sequences are identical, unique, and belong to a clade not previously identified in Hong Kong, which strongly suggests that the virus can be transmitted during air travel.

Publication Type

Journal article.

<502>

Accession Number

20203561974

Author

Bae SungHwan; Shin HeiDi; Koo HoYoung; Lee SeungWon; Yang JeeMyung; Yon DongKeon

Title

Asymptomatic transmission of SARS-CoV-2 on evacuation flight.

Source

Emerging Infectious Diseases; 2020. 26(11):2705-2708. 11 ref.

Publisher

National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

Atlanta

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497

Country of Publication

 USA

Abstract

 We conducted a cohort study in a controlled environment to measure asymptomatic transmission of severe acute respiratory syndrome coronavirus 2 on a flight from Italy to South Korea. Our results suggest that stringent global regulations are necessary for the prevention of transmission of this virus on aircraft.

Publication Type

 Journal article.

<503>

Accession Number

 20203561963

Author

 Nguyen Cong Khanh; Pham Quang Thai; Ha Linh Quach; Ngoc Anh Hoang Thi; Phung Cong Dinh; Tran Nhu Duong; Le Thi Quynh Mai; Ngu Duy Nghia; Tran Anh Tu; La Ngoc Quang; Tran Dai Quang; Trong Tai Nguyen; Florian Vogt; Dang Duc Anh

Title

 Transmission of SARS-CoV 2 during long-haul flight.

Source

 Emerging Infectious Diseases; 2020. 26(11):2617-2624. 41 ref.

Publisher

 National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

 Atlanta

Country of Publication

 USA

Abstract

 To assess the role of in-flight transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), we investigated a cluster of cases among passengers on a 10-hour commercial flight. Affected persons were passengers, crew, and their close contacts. We traced 217 passengers and crew to their final destinations and interviewed, tested, and quarantined them. Among the 16 persons in whom SARS-CoV-2 infection was detected, 12 (75%) were passengers seated in business class along with the only symptomatic person (attack rate 62%). Seating proximity was strongly associated with increased infection risk (risk ratio

7.3, 95% CI 1.2-46.2). We found no strong evidence supporting alternative transmission scenarios. In-flight transmission that probably originated from 1 symptomatic passenger caused a large cluster of cases during a long flight. Guidelines for preventing SARS-CoV-2 infection among air passengers should consider individual passengers' risk for infection, the number of passengers traveling, and flight duration.

Publication Type

  Journal article.

<504>

Accession Number

  20203561961

Author

  Chaw LiLing; Koh WeeChian; Jamaludin, S. A.; Naing, L.; Alikhan, M. F.; Wong, J.

Title

  Analysis of SARS-CoV-2 transmission in different settings, Brunei.

Source

  Emerging Infectious Diseases; 2020. 26(11):2598-2606. 25 ref.

Publisher

  National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

  Atlanta

Country of Publication

  USA

Abstract

  We report the transmission dynamics of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) across different settings in Brunei. An initial cluster of SARS-CoV-2 cases arose from 19 persons who had attended the Tablighi Jama'at gathering in Malaysia, resulting in 52 locally transmitted cases. The highest nonprimary attack rates (14.8%) were observed from a subsequent religious gathering in Brunei and in households of attendees (10.6%). Household attack rates from symptomatic case-patients were higher (14.4%) than from asymptomatic (4.4%) or presymptomatic (6.1%) case-patients. Workplace and social settings had attack rates of <1%. Our analyses highlight that transmission of SARS-CoV-2 varies depending on environmental, behavioral, and host factors. We identify red flags for potential superspreading events, specifically densely populated gatherings with prolonged exposure in enclosed settings, persons with recent travel history to areas with active SARS-CoV-2 infections, and group behaviors. We propose differentiated testing strategies to account for differing transmission risk.

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499

Publication Type

 Journal article.

<505>

Accession Number

 20203561960

Author

 Kamiya, H.

Title

 Epidemiology of COVID-19 outbreak on cruise ship quarantined at Yokohama, Japan, February 2020.

Source

 Emerging Infectious Diseases; 2020. 26(11):2591-2597. 15 ref.

Publisher

 National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

 Atlanta

Country of Publication

 USA

Abstract

  To improve understanding of coronavirus disease (COVID-19), we assessed the epidemiology of an outbreak on a cruise ship, February 5-24, 2020. The study population included persons on board on February 3 (2,666 passengers, 1,045 crew). Passengers had a mean age of 66.1 years and were 55% female; crew had a mean age of 36.6 years and were 81% male. Of passengers, 544 (20.4%) were infected, 314 (57.7%) asymptomatic. Attack rates were highest in 4-person cabins (30.0%; n = 18). Of crew, 143 (13.7%) were infected, 64 (44.8%) asymptomatic. Passenger cases peaked February 7, and 35 had onset before quarantine. Crew cases peaked on February 11 and 13. The median serial interval between cases in the same cabin was 2 days. This study shows that severe acute respiratory syndrome coronavirus 2 is infectious in closed settings, that subclinical infection is common, and that close contact is key for transmission.

Publication Type

 Journal article.

<506>

Accession Number

  20203561955

Author

  Homolka, S.; Paulowski, L.; Andres, S.; Hillemann, D.; Jou RuWen; Gunther, G.; Claassens, M.; Kuhns, M.; Niemann, S.; Maurer, F. P.

Title

  Two pandemics, one challenge-leveraging molecular test capacity of tuberculosis laboratories for rapid COVID-19 case-finding.

Source

  Emerging Infectious Diseases; 2020. 26(11):2549-2554. 34 ref.

Publisher

  National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

  Atlanta

Country of Publication

  USA

Abstract

  In many settings, the ongoing coronavirus disease (COVID-19) pandemic coincides with other major public health threats, in particular tuberculosis. Using tuberculosis (TB) molecular diagnostic infrastructure, which has substantially expanded worldwide in recent years, for COVID-19 case-finding might be warranted. We analyze the potential of using TB diagnostic and research infrastructures for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) testing. We focused on quality control by adapting the 12 Quality System Essentials framework to the COVID-19 and TB context. We conclude that diagnostic infrastructures for TB can in principle be leveraged to scale-up SARS-CoV-2 testing, in particular in resource-poor settings. TB research infrastructures also can support sequencing of SARS-CoV-2 to study virus evolution and diversity globally. However, fundamental principles of quality management must be followed for both TB and SARS-CoV-2 testing to ensure valid results and to minimize biosafety hazards, and the continuity of TB diagnostic services must be guaranteed at all times.

Publication Type

  Journal article.

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501

<507>

Accession Number

 20203561720

Author

 Gao HuiMing; Hu RuJun; Yin Ling; Yuan XiaoLi; Tang Hao; Luo Lan; Chen Mei; Huang Di; Wang Ying; Yu AnYong; Jiang ZhiXia

Title

 Knowledge, attitudes and practices of the Chinese public with respect to coronavirus disease (COVID-19): an online cross-sectional survey.

Source

 BMC Public Health; 2020. 20(1816):(30 November 2020). 24 ref.

Publisher

 BioMed Central Ltd

Location of Publisher

 London

Country of Publication

 UK

Abstract

 Background Coronavirus disease (COVID-19) has become a pandemic. The knowledge, attitudes, and practices (KAP) of the public play a major role in the prevention and control of infectious diseases. The objective of the present study was to evaluate the KAP of the Chinese public and to assess potential influencing factors related to practices. Methods A cross-sectional online survey was conducted in China in February 2020 via a self-designed questionnaire comprising 33 questions assessing KAP. Results For the 2136 respondents from 30 provinces or municipalities in China, the accurate response rate for the knowledge section ranged from 72.7 to 99.5%, and the average was 91.2%. Regarding attitude section, the percentage of positive attitudes ("strongly agree" and "agree") ranged from 94.7 to 99.7%, and the average value was 98.0%. The good practices ("always" and "often") results ranged from 76.1 to 99.5%, and the average value was 96.8%. The independent samples t-test revealed that gender and ethnic differences had no effect on knowledge, attitude or behaviour (P > 0.05). However, knowledge was associated with age (t=4.842, p < 0.001), marital status (t=-5.323, p < 0.001), education level (t=8.441, p < 0.001), occupation (t=-10.858, p < 0.001), and place of residence (t=7.929, p < 0.001). Similarly, attitude was associated with marital status (t=-2.383, p=0.017), education level (t=2.106, p=0.035), occupation (t=-4.834, p < 0.001), and place of residence (t=4.242, p < 0.001). The multiple linear regression analysis results showed that the factors influencing practices were knowledge (t=-3.281, p=0.001), attitude (t=18.756, p < 0.001), occupation (t=-3.860, p < 0.001), education level (t=3.136, p=0.002), and place of residence (t=3.257, p=0.001). Conclusions The Chinese public exhibited a good level of knowledge of COVID-19, a positive attitude, and high adherence to good practices. COVID-19-related knowledge, attitudes and practices were affected by age, marital status, education level, occupation, and place of residence to varying degrees. In addition, practices were affected by knowledge and attitudes towards COVID-19.

Publication Type

Journal article.

<508>

Accession Number

  20203561277

Author

  Cota, G.; Freire, M. L.; Souza, C. S. de; Pedras, M. J.; Saliba, J. W.; Faria, V.; Alves, L. L.; Rabello, A.; Avelar, D. M.

Title

  Diagnostic performance of commercially available COVID-19 serology tests in Brazil.

Source

  International Journal of Infectious Diseases; 2020. 101:382-390. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Timely and accurate laboratory testing is essential for managing the global COVID-19 pandemic. Reverse transcription polymerase chain reaction remains the gold-standard for SARS-CoV-2 diagnosis, but several practical issues limit the test's use. Immunoassays have been indicated as an alternative for individual and mass testing. Objectives: To access the performance of 12 serological tests for COVID-19 diagnosis. Methods: We conducted a blind evaluation of six lateral-flow immunoassays (LFIAs) and six enzyme-linked immunosorbent assays (ELISAs) commercially available in Brazil for detecting anti-SARS-CoV-2 antibodies. Results: Considering patients with seven or more days of symptoms, the sensitivity ranged from 59.5% to 83.1% for LFIAs and from 50.7% to 92.6% for ELISAs. For both methods, the sensitivity increased with clinical severity and days of symptoms. The agreement among LFIAs performed with digital blood and serum was moderate. Specificity was, in general, higher for LFIAs than for ELISAs. Infectious diseases prevalent in the tropics, such as HIV, leishmaniasis, arboviruses, and malaria, represent conditions with the potential to cause false-positive results with these tests, which significantly compromises their specificity. Conclusion: The performance of immunoassays was only moderate, affected by the duration and clinical severity of the disease. Absence of discriminatory power between IgM/IgA and IgG has also been demonstrated, which prevents the use of acute-phase antibodies for decisions on social isolation.

Publication Type

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503

Journal article.

<509>

Accession Number

 20203561274

Author

 Klausner, Z.; Fattal, E.; Hirsch, E.; Shapira, S. C.

Title

 A single holiday was the turning point of the COVID-19 policy of Israel.

Source

 International Journal of Infectious Diseases; 2020. 101:368-373. 32 ref.

Publisher

 Elsevier Ltd

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

 Objectives: Despite an initial success, Israel's quarantine-isolation COVID-19 policy has abruptly collapsed. This study's aim is to identify the causes that led to this exponential rise in the accumulation of confirmed cases. Methods: Epidemiological investigation reports were used to reconstruct chains of transmission as well as assess the net contribution of local infections relative to imported cases, infected travelers arriving from abroad. A mathematical model was implemented in order to describe the efficiency of the quarantine-isolation policy and the inflow of imported cases. The model's simulations included two scenarios for the actual time series of the symptomatic cases, providing insights into the conditions that lead to the abrupt change. Results: The abrupt change followed a Jewish holiday, Purim, in which many public gatherings were held. According to the first scenario, the accumulation of confirmed cases before Purim was driven by imported cases resulting in a controlled regime, with an effective reproduction number, Re, of 0.69. In the second scenario, which followed Purim, a continuous rise of the local to imported cases ratio began, which led to an exponential growth regime characterized by an Re of 4.34. It was found that the change of regime cannot be attributed to super-spreader events, as these consisted of approximately 5% of the primary cases, which resulted in 17% of the secondary cases. Conclusions: A general lesson for health policymakers should be that even a short lapse in public responsiveness can lead to dire consequences.

Publication Type

Journal article.

<510>

Accession Number

20203561268

Author

Tao Jun; Gao HuiZhi; Zhu ShuYing; Yang Lin; He DaiHai

Title

Influenza versus COVID-19 cases among influenza-like illness patients in travelers from Wuhan to Hong Kong in January 2020.

Source

International Journal of Infectious Diseases; 2020. 101:323-325. 5 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Objective: The COVID-19 outbreak in Wuhan, Hubei, China, followed the seasonal influenza epidemic. Since some COVID-19 cases may have been misdiagnosed as seasonal influenza in January 2020, before testing capacity was adequate, it is relevant to study the proportions of influenza and COVID-19 cases among influenza-like-illness (ILI) patients and their temporal pattern. Results: This study analyzed the record of the ILI patients with a recent travel history to Wuhan who arrived in Hong Kong between 31 December 2019 and 21 January 2020. We found that the proportion of COVID-19 cases among the total ILI patients is much smaller than a study among ILI in Wuhan. This difference in proportion could be due to the difference in sampling. We argue that it is essential to consider both samples when inferring the number of COVID-19 cases from ILI patients.

Publication Type

Journal article.

<511>

Accession Number

  20203561250

Author

  Faccini-Martinez, A. A.; Rivero, R.; Garay, E.; Garcia, A.; Mattar, S.; Botero, Y.; Galeano, K.; Miranda, J.; Martinez, C.; Guzman, C.; Arrieta, G.; Contreras, H.; Hugo Kerguelen; Maria Moscote; Brango, E.; Contreras, V.

Title

  Serological cross-reactivity using a SARS-CoV-2 ELISA test in acute Zika virus infection, Colombia.

Source

  International Journal of Infectious Diseases; 2020. 101:191-193. 10 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Objectives: We investigated seroreactivity by using a commercial SARS-CoV-2 ELISA test in samples collected from different groups of individuals, including patients diagnosed to have Dengue, Zika, and Chikungunya infection between 2015 and 2019, from an endemic area in the Caribbean Colombian region. Methods: A total of 127 sera samples obtained from six different groups of individuals were included in this study: Group A: patients with confirmed SARS-CoV-2 infection; Group B: patients with symptoms suggestive of COVID-19 or asymptomatic contacts with confirmed patients; Group C: patients with acute or recent dengue virus infection; Group D: patients with acute Zika virus infection; Group E: patients with previous Chikungunya virus infection; and Group F: individuals with exposure to spotted fever group rickettsiae. Results: Overall, group A, group B, and group D showed seroreactivity to SARS-CoV-2 in 92%, 75%, and 26% of samples, respectively; furthermore, group C, group E, and group F showed 100% seronegativity. Conclusions: We found 26% of serological cross-reactivity in patients with acute Zika virus infection by using a commercial SARS-CoV-2 ELISA test. Further studies are needed to evaluate whether serological cross-reaction is maintained with time in nonacute patients with previous exposure to the Zika virus and its effect in SARS-CoV-2 serosurveys in endemic areas for this arbovirus.

Publication Type

  Journal article.

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506

<512>

Accession Number

  20203561244

Author

  Karahasan Yagci, A.; Sarinoglu, R. C.; Bilgin, H.; Yanilmaz, O.; Sayin, E.; Deniz, G.; Guncu, M. M.; Doyuk, Z.; Baris, C.; Kuzan, B. N.; Aslan, B.; Korten, V.; Cimsit, C.

Title

  Relationship of the cycle threshold values of SARS-CoV-2 polymerase chain reaction and total severity score of computerized tomography in patients with COVID 19.

Source

  International Journal of Infectious Diseases; 2020. 101:160-166. 25 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Aim: Studies analyzing viral load in COVID-19 patients and any data that compare viral load with chest computerized tomography (CT) severity are limited. This study aimed to evaluate the severity of chest CT in reverse transcriptase polymerase chain reaction (RT-PCR)-positive patients and factors associated with it. Methodology: SARS-CoV-2 RNA was extracted from nasopharyngeal swab samples by using Bio-speedy viral nucleic acid buffer. The RT-PCR tests were performed with primers and probes targeting the RdRp gene (Bioexen LTD, Turkey) and results were quantified as cycle threshold (Ct) values. Chest CT of SARS-CoV-2 RNA-positive patients (n = 730) in a period from 22 March to 20 May 2020 were evaluated. The total severity score (TSS) of chest CT ranged 0-20 and was calculated by summing up the degree of acute lung inflammation lesion involvement of each of the five lung lobes. Results: Of the 284 patients who were hospitalized, 27 (9.5%) of them died. Of 236 (32.3%) patients, there were no findings on CT and 216 (91.5%) of them were outpatients (median age 35 years). TSS was significantly higher in hospitalized patients; 5.3% had severe changes. Ct values were lower among outpatients, indicating higher viral load. An inverse relation between viral load and TSS was detected in both groups. CT severity was related to age, and older patients had higher TSS ($p < 0.01$). Conclusion: Viral load was not a critical factor for hospitalization and mortality. Outpatients had considerable amounts of virus in their nasopharynx, which made them contagious to their contacts. Viral load is important in detecting early stages of COVID-19, to minimize potential spread, whereas chest CT can help identify cases requiring extensive medical care.

Publication Type

  Journal article.

<513>

Accession Number

  20203561238

Author

  Mazhar, F.; Hadi, M. A.; Kow ChiaSiang; Marran, A. M. N.; Merchant, H. A.; Hasan, S. S.

Title

  Use of hydroxychloroquine and chloroquine in COVID-19: how good is the quality of randomized controlled trials?

Source

  International Journal of Infectious Diseases; 2020. 101:107-120. 36 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Objectives: We critically evaluated the quality of evidence and quality of harm reporting in clinical trials that evaluated the effectiveness of hydroxychloroquine (HCQ) or chloroquine (CQ) for the treatment of coronavirus disease 2019 (COVID-19). Study design and setting: Scientific databases were systematically searched to identify relevant trials of HCQ/CQ for the treatment of COVID-19 published up to 10 September 2020. The Cochrane risk-of-bias tools for randomized trials and non-randomized trials of interventions were used to assess risk of bias in the included studies. A 10-item Consolidated Standards of Reporting Trials (CONSORT) harm extension was used to assess quality of harm reporting in the included trials. Results: Sixteen trials, including fourteen randomized trials and two non-randomized trials, met the inclusion criteria. The results from the included trials were conflicting and lacked effect estimates adjusted for baseline disease severity or comorbidities in many cases, and most of the trials recruited a fairly small cohort of patients. None of the clinical trials met the CONSORT criteria in full for reporting harm data in clinical trials. None of the 16 trials had an overall 'low' risk of bias, while four of the trials had a 'high', 'critical', or 'serious' risk of bias. Biases observed in these trials arise from the randomization process, potential deviation from intended interventions, outcome measurements, selective reporting, confounding, participant selection, and/or classification of interventions. Conclusion: In general, the quality of currently available evidence for the effectiveness of CQ/HCQ in patients with COVID-19 is suboptimal. The importance of a properly designed and reported clinical trial cannot be overemphasized amid the COVID-19 pandemic, and its dismissal could lead to poorer clinical and policy decisions, resulting in wastage of already stretched invaluable health care resources.

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508

Publication Type

Journal article.

<514>

Accession Number

20203561227

Author

Pinnetti, C.; Vergori, A.; Agrati, C.; Castilletti, C.; Campioni, P.; Gagliardini, R.; Mondi, A.; Notari, S.; Amendola, A.; Cicalini, S.; Baldini, F.; Capobianchi, M. R.; Antinori, A.

Title

SARS-CoV-2 infection does not induce HIV viral escape in the central nervous system: a case series.

Source

International Journal of Infectious Diseases; 2020. 101:38-41. 14 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

We report two cases of HIV positive patients with SARS-CoV-2 infection and a recent diagnosis of opportunistic infections of central nervous system (CNS). We investigated the potential impact of coinfection with SARS-CoV-2 on HIV replication in CNS.

Publication Type

Journal article.

<515>

Accession Number

  20203561201

Author

  Chen Xi; Liao BinYou; Cheng Lei; Peng Xian; Xu Xin; Li YuQing; Hu Tao; Li JiYao; Zhou XueDong; Ren Biao

Title

  The microbial coinfection in COVID-19.

Source

  Applied Microbiology and Biotechnology; 2020. 104(18):7777-7785. many ref.

Publisher

  Springer Berlin

Location of Publisher

  Heidelberg

Country of Publication

  Germany

Abstract

  The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a novel beta-coronavirus, is the main pathogenic agent of the rapidly spreading pneumonia called coronavirus disease 2019 (COVID-19). SARS-CoV-2 infects much more people, especially the elder population, around the world than other coronavirus, such as SARS-CoV andMERS-CoV, which is challenging current global public health system. Beyond the pathogenesis of SARS-CoV-2, microbial coinfection plays an important role in the occurrence and development of SARS-CoV-2 infection by raising the difficulties of diagnosis, treatment, prognosis of COVID-19, and even increasing the disease symptom and mortality. We summarize the coinfection of virus, bacteria and fungi with SARS-CoV-2, their effects on COVID-19, the reasons of coinfection, and the diagnosis to emphasize the importance ofmicrobial coinfection in COVID-19.

Publication Type

  Journal article.

<516>

Accession Number

  20203561109

Author

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510

Goncalves Junior, J.; Moreira, M. M.; Pinheiro, W. R.; Amorim, L. M. de; Lima, C. K. T.; Silva, C. G. L. da; Rolim Neto, M. L.

Title

The mental health of those whose rights have been taken away: an essay on the mental health of indigenous peoples in the face of the 2019 Coronavirus (2019-nCoV) outbreak.

Source

Psychiatry Research; 2020. 289.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: In Latin America there are about 45 million indigenous people in 826 communities that represent 8.3% of the population. An estimated 798,365 Aboriginal and Torres Strait Islander were in Australia, 5,2 million indigenous people living in America and 2,13 million in Canada. Racial/ethnic disparities in mental health service use have increased especially in the context of the new coronavirus pandemic. Thus, we aimed to describe the mental health situation of the indigenous population in the context of the COVID-19 pandemic Method: The studies were identified in well-known international journals found in three electronic databases: PubMed, Scopus, and MEDLINE. The data were cross-checked with information from the main international newspapers. Results: According to the literature, due to the COVID-19 pandemic there is a lack of specialized mental health services and professionals, a restricted access to quality information and a lack of access to inputs, causing negative feelings and it can exacerbate pre-existing mental problems (eg: depression, suicidal ideation, smoking and binge drink). The cultural differences are a risk factor to worsen the mental health of this already vulnerable population. Conclusion: providing psychological first aid is an essential care component for indigenous populations that have been victims COVID-19 pandemic.

Publication Type

Correspondence.

<517>

Accession Number

20203561103

Author

Ayushi Dixit; Marthoenis Marthoenis; Arafat, S. M. Y.; Pawan Sharma; Kar, S. K.

Title

Binge watching behavior during COVID 19 pandemic: a cross-sectional, cross-national online survey.

Source

Psychiatry Research; 2020. 289.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<518>

Accession Number

20203561099

Author

Arafat, S. M. Y.; Kar, S. K.; Marthoenis, M.; Pawan Sharma; Apu, E. H.; Kabir, R.

Title

Psychological underpinning of panic buying during pandemic (COVID-19).

Source

Psychiatry Research; 2020. 289.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

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512

Publication Type

Correspondence.

<519>

Accession Number

20203561093

Author

Kang ChuanYuan; Meng Fu; Feng Qiang; Yuan Jing; Liu Liang; Xu Li; Yang ShuRan; Wei YuJun; Zhao XuDong; Yang JianZhong

Title

Implementation of quarantine in China during the outbreak of COVID-19.

Source

Psychiatry Research; 2020. 289.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<520>

Accession Number

20203561090

Author

Zgueb, Y.; Bourgou, S.; Neffeti, A.; Amamou, B.; Masmoudi, J.; Chebbi, H.; Somrani, N.; Bouasker, A.

Title

Psychological crisis intervention response to the COVID 19 pandemic: a Tunisian centralised protocol.

Source

Psychiatry Research; 2020. 289.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In order to manage the urgent psychological need for support in response to the anticipated reaction of the population to the COVID-19 pandemic, we developed a new psychological crisis intervention model by implementing a centralised psychological support system for all of Tunisia. We set up a helpline which is accessible throughout the country, including those without access to Internet. This model integrates medical students, child and adolescent psychiatrists, psychiatrists, psychologists and social services to provide psychological intervention to the general population and medical staff. It will make a sound basis for developing a more effective psychological crisis intervention response system.

Publication Type

Journal article.

<521>

Accession Number

20203561080

Author

Yang HaiYang; Ma JingJing

Title

How an epidemic outbreak impacts happiness: factors that worsen (vs. protect) emotional well-being during the coronavirus pandemic.

Source

Psychiatry Research; 2020. 289. 16 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  What are the factors that worsen (vs. protect) emotional well-being during a pandemic outbreak such as COVID-19? Through two large-scale nationwide surveys (N1 = 11,131; N2 = 3,000) conducted in China immediately before versus during the coronavirus outbreak, we found that the onset of the coronavirus epidemic led to a 74% drop in overall emotional well-being. Factors associated with the likelihood of contracting the disease (e.g., residing near the epicenter), extent of potential harm (e.g., being an elderly), and relational issues (e.g., those within a marriage) exacerbated the detrimental effect of the outbreak on emotional well-being. Further, individuals' perception of their knowledge about coronavirus infection was another factor. Regardless of the actual amount of knowledge they possessed, those perceiving themselves as more knowledgeable, were able to experience more happiness during the outbreak. Higher perceived knowledge was associated with a stronger sense of control, which mediated the differences in emotional well-being. These patterns persisted even after controlling for a host of demographic and economic variables. In conclusion, public policies and mental health interventions aimed at boosting/protecting psychological well-being during epidemics should take account of these factors.

Publication Type

  Journal article.

<522>

Accession Number

  20203560897

Author

  Shi Ming; Chen LianHua; Yang YaDong; Zhang JingPeng; Xu Ji; Xu Gang; Li Bin; Yin YiPing

Title

  Analysis of clinical features and outcomes of 161 patients with severe and critical COVID-19: a multicenter descriptive study.

Source

  Journal of Clinical Laboratory Analysis; 2020. 34(9). 16 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Background: This study aimed to investigate clinical characteristics, laboratory indexes, treatment regimens, and short-term outcomes of severe and critical coronavirus disease 2019 (COVID-19) patients. Methods: One hundred and sixty one consecutive severe and critical COVID-19 patients admitted in intensive care unit (ICU) were retrospectively reviewed in this multicenter study. Demographic features, medical histories, clinical symptoms, lung computerized tomography (CT) findings, and laboratory indexes on admission were collected. Post-admission complications, treatment regimens, and clinical outcomes were also documented. Results: The mean age was 59.38 +or- 16.54 years, with 104 (64.60%) males and 57 (35.40%) females. Hypertension (44 [27.33%]) and diabetes were the most common medical histories. Fever (127 [78.88%]) and dry cough (111 [68.94%]) were the most common symptoms. Blood routine indexes, hepatic and renal function indexes, and inflammation indexes were commonly abnormal. Acute respiratory distress syndrome (ARDS) was the most common post-admission complication (69 [42.86%]), followed by electrolyte disorders (48 [29.81%]), multiple organ dysfunction (MODS) (37 [22.98%]), and hypoproteinemia (36 [22.36%]). The most commonly used antiviral drug was lopinavir/ritonavir tablet. 50 (31.06%) patients died, while 78 (48.45%) patients healed and discharged, and the last 33 (20.50%) patients remained in hospital. Besides, the mean hospital stay of deaths was 21.66 +or- 11.18 days, while the mean hospital stay of discharged patients was 18.42 +or- 12.77 days. Furthermore, ARDS (P < .001) and MODS (P = .008) correlated with increased mortality rate. Conclusion: Severe and critical COVID-19 presents with high mortality rate, and occurrence of ARDS or MODS greatly increases its mortality risk.

Publication Type

Journal article.

<523>

Accession Number

20203560661

Author

Eisbrenner, T.; Tipples, G.; Kuschak, T.; Gilmour, M.

Title

Laboratory response checklist for infectious disease outbreaks - preparedness and response considerations for emerging threats.

Source

Canada Communicable Disease Report; 2020. 46(10):311-321. 53 ref.

Publisher

Public Health Agency of Canada

Location of Publisher

Ottawa

Country of Publication

Canada

Abstract

  The purpose of the Laboratory Response Checklist for Infectious Disease Outbreaks (the Checklist) is to provide public health laboratories and laboratory networks operating at multiple jurisdictional levels with a useful, adaptable tool to help rapidly identify important outbreak response considerations, particularly when investigating a previously unknown infectious disease threat. The Checklist was developed by the National Microbiology Laboratory of Canada in collaboration with provincial/territorial, national and international laboratory experts, including the Canadian Public Health Laboratory Network, and the Global Health Security Action Group Laboratory Network. While the Checklist was initially designed to reflect lessons learned through National Microbiology Laboratory participation in extended national and international outbreak responses (e.g. Zika virus epidemic [2015-2016], Ebola virus epidemic, West Africa [2014-2016]), the importance of optimizing laboratory response coordination has only been underscored by the ongoing challenges presented by the coronavirus disease 2019 (COVID-19) pandemic response requirements. The Checklist identifies five highly interdependent laboratory response themes, each of which encompasses multiple considerations that may be critical to a coordinated, strategic outbreak response. As such, the comprehensive review of Checklist considerations by responding laboratory organizations may provide a valuable opportunity to quickly detect key response considerations and interdependencies, and mitigate risks with the potential to impact public health action.

Publication Type

  Journal article.

<524>

Accession Number

  20203560495

Author

  Mahooti, M.; Miri, S. M.; Abdolalipour, E.; Ghaemi, A.

Title

  The immunomodulatory effects of probiotics on respiratory viral infections: a hint for COVID-19 treatment?

Source

  Microbial Pathogenesis; 2020. 148. 98 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Respiratory virus infections are among the most prevalent diseases in humans and contribute to morbidity and mortality in all age groups. Moreover, since they can evolve fast and cross the species barrier, some of these viruses, such as influenza A and coronaviruses, have sometimes caused epidemics or pandemics and were associated with more serious clinical diseases and even mortality. The recently identified Coronavirus Disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a Public Health Emergency of International concern and has been associated with rapidly progressive pneumonia. To ensure protection against emerging respiratory tract infections, the development of new strategies based on modulating the immune responses is essential. The use of probiotic components has substantially increased due to their effects on immune responses, in particular on those that occur in the upper/lower respiratory tract. Superinduction of inflammatory reaction, known as a cytokine storm, has been correlated directly with viral pneumonia and serious complications of respiratory infections. In this review, probiotics, as potential immunomodulatory agents, have been proposed to improve the host's response to respiratory viral infections. In addition, the effects of probiotics on different aspects of immune responses and their antiviral properties in both pre-clinical and clinical contexts have been described in detail.

Publication Type

  Journal article.

<525>

Accession Number

  20203560493

Author

  Marinho, E. M.; Andrade Neto, J. B. de; Silva, J.; Silva, C. R. da; Cavalcanti, B. C.; Marinho, E. S.; Nobre Junior, H. V.

Title

  Virtual screening based on molecular docking of possible inhibitors of Covid-19 main protease.

Source

  Microbial Pathogenesis; 2020. 148. 45 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Coronavirus (COVID-19) is an enveloped RNA virus that is diversely found in humans and that has now been declared a global pandemic by the World Health Organization. Thus, there is an urgent need to develop effective therapies and vaccines against this disease. In this context, this study aimed to evaluate in silico the molecular interactions of drugs with therapeutic indications for treatment of COVID-19 (Azithromycin, Baricitinib and Hydroxychloroquine) and drugs with similar structures (Chloroquine, Quinacrine and Ruxolitinib) in docking models from the SARS-CoV-2 main protease (M-pro) protein. The results showed that all inhibitors bound to the same enzyme site, more specifically in domain III of the SARS-CoV-2 main protease. Therefore, this study allows proposing the use of baricitinib and quinacrine, in combination with azithromycin; however, these computer simulations are just an initial step for conceiving new projects for the development of antiviral molecules.

Publication Type

  Journal article.

<526>

Accession Number

  20203560258

Author

  Budhan Chaudhary

Title

  Home point study of birds and mammals diversity allied to humans in lockdown of COVID-19 at Bharatpur, Chitwan, Nepal.

Source

  Open Journal of Ecology; 2020. 10(9):612-631. 60 ref.

Publisher

Scientific Research Publishing

Location of Publisher

Irvine

Country of Publication

USA

Abstract

The birds and mammals are nature gifted gene banks which differ greatly with variation in altitudes, climates, landscapes, vegetation and availability of food and water. The altitudinal variation in Nepal is 60 m to 8,848 m which affects climatic conditions and habitat types within short distance that influence species diversity of wild animals. Therefore, the objectives of this study were to reveal species richness, behaviors and luring factors for birds and mammals to attract to an urban area of Bharatpur Metropolitan City, the South-central lowland of Nepal. The methods applied to record species diversity of birds and mammals were made from a home point (a point of study made at the North-west corner of verandah in first floor of my home) located in Bharatpur-9, Saradpur, Sitalpath, in the coordinates of 27 degrees 39'55"N and 84 degrees 26'08"E. The animal species were observed thrice daily (at 7 AM, 10 AM and 2 PM) for 2 months beginning from 24 March to 23 May 2020 during the period of lockdown of COVID-19 and were listed in "Observation Data Sheet". The photographs and/or videos were taken except one of the species of bats (i.e. Myotis formosus) and six species of birds which were flying swiftly over the sky in 70 m in diameter (i.e. 7,436 square meters or 22 kattha in area) of the home point. The results obtained from my study were; 83 species, 53 genera and 37 families of wild birds; and 6 species, 5 genera and 3 families of wild mammals. Among birds, Dicrurus and Ploceus were recorded the highest 7.54% (4/53); followed by Acridotheres, Megalaima, Merops, Oriolus, Psittacula and Streptopelia with 5.66% (3/53), and remaining twelve genera were found 3.77% (2/53), and thirty three genera were 1.88% (1/53). Similarly, 33.33% (2/6) of Herpestes; and 16.66% (1/6) of each Canis, Vulpes, Pipistrellus and Myotis were recorded among mammals. Conclusively, I found that the species of birds and mammals were lured to human settlement area due to availability of food (i.e. small in/vertebrates, kitchen garbage etc.); crops (i.e. maize, sesame etc.); vegetables (i.e. bean); fruits (litchi, mango, berries etc.); nesting places and healthy environment. However, there is great chance of transmission of viral (rabies, foot-mouth disease etc.), bacterial (tuberculosis) and parasitic zoonoses (echinococcosis, toxoplasmosis, helminthiasis etc.) to humans and domesticated animals through feces and saliva droppings in addition to the poultry raiding, biting to people and damage of fruits, vegetables and crops creating conflicts.

Publication Type

Journal article.

<527>

Accession Number

20203560130

Author

Hu XiaoLei; Li XueJun; Lu Yang; Tang Jing; Li HaiRong; Tang Min

Title

Effect of WeChat consultation group on residents staying at home in Sichuan and Chongqing regions during the Coronavirus Disease 2019 (COVID-19) outbreak in China: a cross-sectional study.

Source

Publisher

Location of Publisher

Country of Publication

Abstract

Background: After the outbreak of Coronavirus in Wuhan, Hubei, in 2019, the disease rapidly spread to other parts of China as well as outside of China. Since the pandemic outbreak, the general public has been responsive to the national call to stay at home in quarantine. However, since doubts and anxiety related to the disease have been detected in the general public, in this study, we established the WeChat platform "Coronavirus Disease 2019 Voluntary Assistance Group in Sichuan and Chongqing regions" in January 2020, which was committed to providing professional consultation and psychological counseling services for residents in Sichuan and Chongqing during the Coronavirus Disease 2019 outbreak. Our aim was to analyze the consultation practices of residents in the WeChat assistance group and provide a reference for the similar "non-contact" voluntary service platforms aiming to implement consultations during the late pandemic period. Methods: A cross-sectional study was conducted using the records containing the consultation content from the WeChat assistance groups in Sichuan and Chongqing between January 30 and March 1, 2020. Data on consultation content, changes in a number of consultation items, answers, knowledge on popular science, and expert advice were summarized, and the Pareto chart was used to analyze the primary and secondary factors of consultation content. Results: The constituent ratio of "respiratory symptoms, masks, and disinfection" in consultation content ranked as the top three factors. Cumulatively, they occupied 49.77% of the content, thus resulting as the primary factors in the consultation content. The number of consultation items suddenly increased from 10 on the first day to 116 on the 7th day, resulting in a 1060% increased rate. There were 151 consultation factors, among which 130 (86.1%) were related to the Coronavirus Disease 2019, and 21 (13.9%) were unrelated to the Coronavirus Disease 2019. Conclusion: WeChat groups may be used as an effective means for providing assistance services for the public during the Coronavirus Disease 2019 outbreak.

Publication Type

Journal article.

<528>

Accession Number

 20203560065

Author

 Yoo JiYoun; Dutra, S. V. O.; Fanfan, D.; Sniffen, S.; Wang Hao; Siddiqui, J.; Song HyoSuk; Bang SungHwan; Kim DongEun; Kim ShiHoon; Groer, M.

Title

 Comparative analysis of COVID-19 guidelines from six countries: a qualitative study on the US, China, South Korea, the UK, Brazil, and Haiti.

Source

 BMC Public Health; 2020. 20(1853):(3 December 2020). 41 ref.

Publisher

 BioMed Central Ltd

Location of Publisher

 London

Country of Publication

 UK

Abstract

 Background: In late January, a worldwide crisis known as COVID-19 was declared a Public Health Emergency of International Concern by the WHO. Within only a few weeks, the outbreak took on pandemic proportions, affecting over 100 countries. It was a significant issue to prevent and control COVID-19 on both national and global scales due to the dramatic increase in confirmed cases worldwide. Government guidelines provide a fundamental resource for communities, as they guide citizens on how to protect themselves against COVID-19, however, they also provide critical guidance for policy makers and healthcare professionals on how to take action to decrease the spread of COVID-19. We aimed to identify the differences and similarities between six different countries' (US, China, South Korea, UK, Brazil and Haiti) government-provided community and healthcare system guidelines, and to explore the relationship between guideline issue dates and the prevalence/incidence of COVID-19 cases. Methods: To make these comparisons, this exploratory qualitative study used document analysis of government guidelines issued to the general public and to healthcare professionals. Documents were purposively sampled (N = 55) and analyzed using content analysis. Results: The major differences in the evaluation and testing criteria in the guidelines across the six countries centered around the priority of testing for COVID-19 in the general population, which was strongly dependent on each country's healthcare capacity. However, the most similar guidelines pertained to the clinical signs and symptoms of COVID-19, and methods to prevent its contraction. Conclusion: In the initial stages of the outbreak, certain strategies were universally employed to control the deadly virus's spread, including quarantining the sick, contact tracing, and social distancing. However, each country dealt with differing healthcare capacities, risks, threats, political and socioeconomic challenges, and distinct healthcare systems and infrastructure. Acknowledging these differences highlights the importance of examining the various countries' response to the COVID-19 pandemic with a nuanced view, as each of these factors shaped the government guidelines distributed to each country's communities and healthcare systems.

Publication Type

Journal article.

<529>

Accession Number

20203560026

Author

Woolven, S.

Title

A call for essays: stories from the frontline during the COVID-19 pandemic.

Source

Lancet Respiratory Medicine; 2020. 8(11):1074-1074.

Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<530>

Accession Number

20203559996

Author

Armijos-Jaramillo, V.; Yeager, J.; Muslin, C.; Perez-Castillo, Y.

Title

  SARS-CoV-2, an evolutionary perspective of interaction with human ACE2 reveals undiscovered amino acids necessary for complex stability.

Source

  Evolutionary Applications; 2020. 13(9):2168-2178. 43 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The emergence of SARS-CoV-2 has resulted in nearly 1,280,000 infections and 73,000 deaths globally so far. This novel virus acquired the ability to infect human cells using the SARS-CoV cell receptor hACE2. Because of this, it is essential to improve our understanding of the evolutionary dynamics surrounding the SARS-CoV-2 hACE2 interaction. One way theory predicts selection pressures should shape viral evolution is to enhance binding with host cells. We first assessed evolutionary dynamics in select betacoronavirus spike protein genes to predict whether these genomic regions are under directional or purifying selection between divergent viral lineages, at various scales of relatedness. With this analysis, we determine a region inside the receptor-binding domain with putative sites under positive selection interspersed among highly conserved sites, which are implicated in structural stability of the viral spike protein and its union with human receptor ACE2. Next, to gain further insights into factors associated with recognition of the human host receptor, we performed modeling studies of five different betacoronaviruses and their potential binding to hACE2. Modeling results indicate that interfering with the salt bridges at hot spot 353 could be an effective strategy for inhibiting binding, and hence for the prevention of SARS-CoV-2 infections. We also propose that a glycine residue at the receptor-binding domain of the spike glycoprotein can have a critical role in permitting bat SARS-related coronaviruses to infect human cells.

Publication Type

  Journal article.

<531>

Accession Number

  20203559820

Author

  Binson, G.; Venisse, N.; Sauvaget, A.; Bacle, A.; Lazaro, P.; Dupuis, A.

Title

  Preparation and physicochemical stability of 50 mg/ml hydroxychloroquine oral suspension in SyrSpendR SF PH4 (dry).

Source

  International Journal of Antimicrobial Agents; 2020. 56(6). 21 ref.

Publisher

  Elsevier B.V.

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  In the context of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic, hydroxychloroquine has been proposed as a potential agent to treat patients with COVID-19 (coronavirus disease 2019) caused by SARS-CoV-2 infection. Older adults are more susceptible to COVID-19 and some patients may require admission to the intensive care unit, where oral drug administration of solid forms may be compromised in many COVID-19 patients. However, a liquid formulation of hydroxychloroquine is not commercially available. This study describes how to prepare a 50 mg/mL hydroxychloroquine oral suspension using hydroxychloroquine sulfate powder and SyrSpendR SF PH4 (dry) suspending vehicle. Moreover, a fully validated stability-indicating method has been developed to demonstrate the physicochemical stability of the compounded hydroxychloroquine oral suspension over 60 days under refrigeration (5 +or- 3 degrees C). Finally, use of the proposed oral suspension provides a reliable solution to perform safe and accurate administration of hydroxychloroquine to patients with SARS-CoV-2 infection.

Publication Type

  Journal article.

<532>

Accession Number

  20203559812

Author

  Dhibar, D. P.; Navneet Arora; Arpit Kakkar; Neeraj Singla; Ritin Mohindra; Vikas Suri; Ashish Bhalla; Navneet Sharma; Mini P. Singh; Ajay Prakash; Lakshmi Pvm; Bikash Medhi

Title

Post-exposure prophylaxis with hydroxychloroquine for the prevention of COVID-19, a myth or a reality? The PEP-CQ Study.

Source

Abstract

Many drugs have been tried for the treatment/prevention of COVID-19 with limited success. Direct household contacts of COVID-19 patients are at highest risk for SARS-CoV-2 infection. Hydroxychloroquine (HCQ) has been tried against COVID-19 owing to its in vitro virucidal action against SARS-CoV-2, but the role of HCQ as post-exposure prophylaxis (PEP) remains inconclusive. In this open-label, controlled clinical trial, asymptomatic individuals who had direct contact with laboratory-confirmed COVID-19 cases or had undertaken international travel in the last 2 weeks were offered HCQ prophylaxis and assigned to PEP (n=132) or control (n=185) group. The PEP group received HCQ 800 mg on Day 1 followed by 400 mg once weekly for 3 weeks. Both groups undertook home quarantine for 2 weeks along with social distancing and personal hygiene. Over 4-week follow-up, 50/317 participants (15.8%) had new-onset COVID-19. The incidence of COVID-19 was significantly (P=0.033) lower in the PEP (14/132; 10.6%) compared to the control (36/185; 19.5%) group (total absolute risk reduction, -8.9% points). The NNT to prevent the occurrence of 1 COVID-19 case was 12. Overall relative risk was 0.59 (95% CI 0.33-1.05). Compliance was good. The most common adverse event was epigastric discomfort with burning sensation (three participants), with no serious adverse events. PEP with HCQ has the potential for the prevention of COVID-19 in at-risk individuals. Until definitive therapy is available, continuing PEP with HCQ may be considered in suitable at-risk individuals. Further randomised clinical trials with larger samples are required for better evaluation of HCQ as PEP for COVID-19 prevention.

Publication Type

Journal article.

<533>

Accession Number

20203559808

Author

Gendrot, M.; Andreani, J.; Duflot, I.; Boxberger, M.; Bideau, M. le; Mosnier, J.; Jardot, P.; Fonta, I.; Rolland, C.; Bogreau, H.; Hutter, S.; Scola, B. la; Pradines, B.

Title

Methylene blue inhibits replication of SARS-CoV-2 in vitro.

Source

International Journal of Antimicrobial Agents; 2020. 56(6). 37 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

In December 2019, a novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), causing coronavirus diseases 2019 (COVID-19) emerged in Wuhan, China. Currently there is no antiviral treatment recommended against SARS-CoV-2. Identifying effective antiviral drugs is urgently required. Methylene blue has already demonstrated in vitro antiviral activity in photodynamic therapy as well as antibacterial, antifungal and antiparasitic activities in non-photodynamic assays. In this study. non-photoactivated methylene blue showed in vitro activity at very low micromolar range with an EC50 (median effective concentration) of 0.30 +or- 0.03 M and an EC90 (90% effective concentration) of 0.75 +or- 0.21 M at a multiplicity of infection (MOI) of 0.25 against SARS-CoV-2 (strain IHUMI-3). The EC50 and EC90 values for methylene blue are lower than those obtained for hydroxychloroquine (1.5 M and 3.0 M) and azithromycin (20.1 M and 41.9 M). The ratios Cmax/EC50 and Cmax/EC90 in blood for methylene blue were estimated at 10.1 and 4.0, respectively, following oral administration and 33.3 and 13.3 following intravenous administration. Methylene blue EC50 and EC90 values are consistent with concentrations observed in human blood. We propose that methylene blue is a promising drug for treatment of COVID-19. In vivo evaluation in animal experimental models is now required to confirm its antiviral effects on SARS-CoV-2. The potential interest of methylene blue to treat COVID-19 needs to be confirmed by prospective comparative clinical studies.

Publication Type

Journal article.

<534>

Accession Number

20203559796

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527

Author

Ramezankhani, R.; Solhi, R.; Memarnejadian, A.; Nami, F.; Hashemian, S. M. R.; Tricot, T.; Vosough, M.; Verfaillie, C.

Title

Therapeutic modalities and novel approaches in regenerative medicine for COVID-19.

Source

International Journal of Antimicrobial Agents; 2020. 56(6). 136 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The recent coronavirus disease 2019 outbreak around the world has had an enormous impact on the global health burden, threatening the lives of many individuals, and has had severe socio-economic consequences. Many pharmaceutical and biotechnology companies have commenced intensive research on different therapeutic strategies, from repurposed antiviral drugs to vaccines and monoclonal antibodies to prevent the spread of the disease and treat infected patients. Among the various strategies, advanced therapeutic approaches including cell- and gene-editing-based therapeutics are also being investigated, and initial results in in-vitro and early phase I studies have been promising. However, further assessments are required. This article reviews the underlying mechanisms for the pathogenesis of severe acute respiratory syndrome coronavirus-2, and discusses available therapeutic candidates and advanced modalities that are being evaluated in in-vitro/in-vivo models and are of note in clinical trials.

Publication Type

Journal article.

<535>

Accession Number

20203559628

Author

Ning LiangWen; Niu JinYu; Bi XueJing; Yang Chao; Liu Ze; Wu QunHong; Ning Ning; Liang LiBo; Liu AiShu; Hao YanHua; Gao LiJun; Liu ChaoJie

Title

The impacts of knowledge, risk perception, emotion and information on citizens' protective behaviors during the outbreak of COVID-19: a cross-sectional study in China.

Source

BMC Public Health; 2020. 20(1751):(23 November 2020). 59 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: Individual protective behaviors play an important role in the control of the spread of infectious diseases. This study aimed to investigate the adoption of protective behaviors by Chinese citizens amid the COVID-19 outbreak and its associated factors. Methods: An online cross-sectional survey was conducted from 22 January to 14 February 2020 through Wenjuanxing platform, measuring their knowledge, risk perception, negative emotion, response to official communication, and protective behaviors in relation to COVID-19. A total of 3008 people completed the questionnaire, of which 2845 were valid questionnaires. Results: On average, 71% of respondents embraced protective behaviors. Those who made no error in the knowledge test (AOR = 1.77, p < 0.001) perceived the high severity of the epidemic (AOR = 1.90, p < 0.001), had high negative emotion (AOR = 1.36, p = 0.005), reported good health (AOR = 1.94, p < 0.001), paid high attention to the governmental media (AOR = 4.16, p < 0.001) and trusted the governmental media (AOR = 1.97, p < 0.001) were more likely to embrace protective behaviors after adjustments for variations in potential confounding factors. Women and older people were also more likely to embrace protective behaviors. No regional or educational differences were found in the adoption of protective behaviors. Conclusion: The majority of Chinese citizens embraced protective behaviors. Higher levels of protective behaviors are associated with higher knowledge, perceived severity, negative emotion, and attention to and trust in the official governmental media. Official governmental communication is the largest single predictor of protective behaviors.

Publication Type

Journal article.

<536>

Accession Number

20203559525

Author

Sang Ling; Chen SiBei; Zheng Xia; Guan WeiJie; Zhang ZhiHui; Liang WenHua; Zhong Ming; Jiang Li; Pan Chun; Zhang Wei; Xia JiaAn; Chen NanShan; Wu WenJuan; Wu HongKai; Xu YongHao; Liu XueSong; Liu XiaoQing; He JianXing; Li ShiYue; Zhang DingYu; Zhong NanShan; Li YiMin

Title

The incidence, risk factors and prognosis of acute kidney injury in severe and critically ill patients with COVID-19 in mainland China: a retrospective study.

Source

BMC Pulmonary Medicine; 2020. 20(290):(9 November 2020). 32 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: The clinical correlates, prognosis and determinants of acute kidney injury (AKI) in patients with coronavirus disease 2019 (Covid-19) remain largely unclear. Methods: We retrospectively reviewed medical records of all adult patients with laboratory-confirmed Covid-19 who were admitted to the intensive care unit (ICU) between January 23rd 2020 and April 6th 2020 at Wuhan JinYinTan Hospital and The First Affiliated Hospital of Guangzhou Medical University. Results: Among 210 patients, 131 were males (62.4%). The median Age was 64 years (IQR: 56-71). Of 92 (43.8%) patients who developed AKI during hospitalization, 13 (14.1%), 15 (16.3%) and 64 (69.6%) were classified as being at stage 1, 2 and 3, respectively. 54 patients (58.7%) received continuous renal replacement therapy. Age, sepsis, nephrotoxic drug, invasive mechanical ventilation and elevated baseline serum creatinine levels were associated with the occurrence of AKI. Renal recovery during hospitalization was identified among 16 patients with AKI (17.4%), who had a significantly shorter time from admission to AKI diagnosis, lower incidence of right heart failure and higher ratio of partial pressure of oxygen to the fraction of inspired oxygen. Of 210 patients, 93 deceased within 28 days of ICU admission. AKI stage 3, critical disease, greater Age and the lowest ratio of partial pressure of oxygen to the fraction of inspired oxygen being < 150 mmHg were independently associated with death. Conclusions: Among patients with Covid-19, the incidence of AKI was high. Our findings of the risk factors of the development of AKI and factors associated with renal function recovery may inform clinical management of patients with critical illness of Covid-19.

Publication Type

Journal article.

<537>

Accession Number

  20203559387

Author

  Cho MeeHee; Bonn, M. A.; Moon SoYeon; Chang HoWook

Title

  Home chef meal kits: product attributes, perceived value and repurchasing intentions the moderating effects of household configuration.

Source

  Journal of Hospitality and Tourism Management; 2020. 45:192-202. many ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Considering the growing popularity meal kits are undergoing in today's grocery sales market, and also with respect to barriers presented for restaurant dining due to the Covid-19 pandemic, it is essential to obtain more knowledge surrounding those product and service attributes pertaining to consumers and meal kits. Thus, this study was designed to investigate meal kits' essential attributes representing food quality, menu variety, health-oriented, convenience and price in association with their effects upon users' perceived value, and intention to continuously use. Two attributes representing high quality food dishes and menu variety were found to be the most important meal kit attributes because they both strongly improved hedonic and functional value for consumers. Results identified meal kit food quality as having more positive effects upon perceived value for the multi-person household segment when compared with the single-person household group. Comparatively, the effects of menu variety upon perceived value were more positive in the single-person household group than in the multi-person household group. Based on our findings, theoretical, managerial implications, limitations and recommendations for future research are provided.

Publication Type

  Journal article.

<538>

Accession Number

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531

20203559179

Author

Rughinis; Dima, L.; Vasile, S.

Title

Hydroxychloroquine and COVID-19: lack of efficacy and the social construction of plausibility.

Source

American Journal of Therapeutics; 2020. 27(6):e573-e583.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

Hagerstown

Country of Publication

USA

Abstract

Background: Severe acute respiratory syndrome coronavirus 2 SARS- Cov2 has taken the world by surprise. Among the first promising repurposing agents proposed for treatment and prophylaxis, 2 antimalarial agents came into limelight: chloroquine and its less toxic derivative, hydroxychloroquine (HCQ). Intense research and public debates have followed. Areas of Uncertainty: As HCQ is still used and studied, future research may bring novel evidence, modifying the state-of-the-art. Despite the lack of a single randomized control trial (RCT) with positive results, there are currently (as for the search on 30th of August 2020) more than 250 RCT registered on ClinicalTrials.gov with HCQ in COVID patients, and more than 150 of them are "still recruiting" or "not yet recruiting" patients. Data Sources: Our study combines a therapeutic evaluation of RCT data with a sociological analysis of related controversies, examining scientific and public arena discourses. Results: Although any hope of a positive effect was brought exclusively by some and not all of the observational studies, none of the 7 RCT published until now have found any benefit. From a sociological perspective, the HCQ controversy is a useful case study for understanding the construction of plausibility in a cultural context polarized into competing versions of reality, with different epistemologies and ideologies. Conclusions: The results of the first RCTs have been published, and they are disappointing; beneficial effects of HCQ could not be proven either for negative conversion on polymerase chain reactions of COVID patients or for postexposure prophylaxis. The question to be asked is: how many studies do we need until HCQ is abandoned? Argumentative time work, appealing to temporal properties of HCQ including its historical use, accumulation of evidence, alternative therapeutic scenarios, and sensationalist tempo for rhetorical purpose, plays a significant role in its continuing legitimation.

Publication Type

Journal article.

<539>

Accession Number

  20203559170

Author

  Kim MhinJine; Lee JiYeon; Park JaeSeok; Kim HyunAh; Hyun MiRi; Suh YoungSung; Nam SungIl; Chung WooJin; Cho ChiHeum

Title

  Lessons from a COVID-19 hospital, Republic of Korea.

Source

  Bulletin of the World Health Organization; 2020. 98(12):842-848. 12 ref.

Publisher

  World Health Organization

Location of Publisher

  Geneva

Country of Publication

  Switzerland

Abstract

  Objective: To document the experiences of converting a general hospital to a coronavirus disease 2019 (COVID-19) designated hospital during an outbreak in Daegu, Republic of Korea. Methods: The hospital management formed an emergency task force team, whose role was to organize the COVID-19 hospital. The task force used different collaborative channels to redistribute resources and expertise to the hospital. Leading doctors from the departments of infectious diseases, critical care and pulmonology developed standardized guidelines for treatment coherence. Nurses from the infection control team provided regular training on donning and doffing of personal protective equipment and basic safety measures. Findings: Keimyung University Daegu Dongsan hospital became a red zone hospital for COVID-19 patients on 21 February 2020. As of 29 June 2020, 1048 COVID-19 patients had been admitted to the hospital, of which 22 patients died and five patients were still being treated in the recovery ward. A total of 906 health-care personnel worked in the designated hospital, of whom 402 were regular hospital staff and 504 were dispatched health-care workers. Of these health-care workers, only one dispatched nurse acquired COVID-19. On June 15, the hospital management and Daegu city government decided to reconvert the main building to a general hospital for non-COVID-19 patients, while keeping the additional negative pressure rooms available, in case of resurgence of the disease. Conclusion: Centralized coordination in frontline hospital operation, staff management, and patient treatment and placement allowed for successful pooling and utilization of medical resources and manpower during the COVID-19 outbreak.

Publication Type

  Journal article.

<540>

Accession Number

20203559169

Author

Li Juan; Yuan Pei; Heffernan, J.; Zheng TingTing; Ogden, N.; Sander, B.; Li Jun; Li Qi; Belair, J.; Kong, J. D.; Aruffo, E.; Tan Yi; Jin Zhen; Yu Yong; Fan Meng; Cui JingAn; Teng ZhiDong; Zhu HuaiPing

Title

Fangcang shelter hospitals during the COVID-19 epidemic, Wuhan, China.

Source

Bulletin of the World Health Organization; 2020. 98(12):830-841.

Publisher

World Health Organization

Location of Publisher

Geneva

Country of Publication

Switzerland

Abstract

Objective: To design models of the spread of coronavirus disease-2019 (COVID-19) in Wuhan and the effect of Fangcang shelter hospitals (rapidly-built temporary hospitals) on the control of the epidemic. Methods: We used data on daily reported confirmed cases of COVID-19, recovered cases and deaths from the official website of the Wuhan Municipal Health Commission to build compartmental models for three phases of the COVID-19 epidemic. We incorporated the hospital-bed capacity of both designated and Fangcang shelter hospitals. We used the models to assess the success of the strategy adopted in Wuhan to control the COVID-19 epidemic. Findings: Based on the 13 348 Fangcang shelter hospitals beds used in practice, our models show that if the Fangcang shelter hospitals had been opened on 6 February (a day after their actual opening), the total number of COVID-19 cases would have reached 7 413 798 (instead of 50 844) with 1 396 017 deaths (instead of 5003), and the epidemic would have lasted for 179 days (instead of 71). Conclusion: While the designated hospitals saved lives of patients with severe COVID-19, it was the increased hospital-bed capacity of the large number of Fangcang shelter hospitals that helped slow and eventually stop the COVID-19 epidemic in Wuhan. Given the current global pandemic of COVID-19, our study suggests that increasing hospital-bed capacity, especially through temporary hospitals such as Fangcang shelter hospitals, to isolate groups of people with mild symptoms within an affected region could help curb and eventually stop COVID-19 outbreaks in communities where effective household isolation is not possible.

Publication Type

Journal article.

<541>

Accession Number

  20203559145

Author

  Sourav Banerjee; Aritra Guha; Avishikta Das; Mousami Nandi; Rakesh Mondal

Title

  A preliminary report of COVID-19 in children in India.

Source

  Indian Pediatrics; 2020. 57(10):963-964. 8 ref.

Publisher

  Springer (India) Private Limited

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  We describe the profile of COVID-19 in children from India in this multicentre observational study from tertiary care hospitals in West Bengal. Data of children up to 12 years presenting with positive results on SARS-CoV-2 RT-PCR test were included. The median (IQR) age of the 41 patients included was 1 (0.42-5.0) year. Eleven (26.8%) patients, including 6 neonates, never showed any symptoms. Fever was seen in only 9 patients (21%), and co-morbities were found in 61% of patients. There was one death.

Publication Type

  Journal article.

<542>

Accession Number

  20203559142

Author

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535

Bhakti Sarangi; Reddy, V. S.; Oswal, J. S.; Nandini Malshe; Ajinkya Patil; Manojit Chakraborty; Sanjay Lalwani

Title

Epidemiological and clinical characteristics of COVID-19 in Indian children in the initial phase of the pandemic.

Source

Indian Pediatrics; 2020. 57(10):914-917. 15 ref.

Publisher

Springer (India) Private Limited

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Objective: To assess the epidemiological and clinical characteristics of pediatric inpatients with COVID-19, early in the pandemic. Methods: Clinical and laboratory profile and outcomes were studied for children (aged 1 month - 18 years) presenting between 1 April, 2020 and 20 May, 2020 with positive nasopharyngeal swab for SARS-CoV-2 by RT-PCR. Results: 50 children (56% male) with median (IQR) age of 6 (2-12) years were included. Majority (56%) were from families belonging to Kuppuswamy upper lower socioeconomic class. 45 (90%) had positive household contact, and 33 (66%) had overcrowding at home. 29 (58%) children were asymptomatic while 20 (40%) had mild symptoms. Fever, cough, and sore throat were the most common symptoms. High C-reactive protein levels were seen in 15 (30%) children. There was no mortality. Conclusion: The disease burden appears high in lower socio-economic group with majority having a positive household contact. Milder disease pattern in the pediatric age group is reiterated.

Publication Type

Journal article.

<543>

Accession Number

20203558965

Author

Patella, V.; Delfino, G.; Florio, G.; Spadaro, G.; Bianchi, F. C.; Senna, G.; Gioacchino, M. di

Title

Management of the patient with allergic and immunological disorders in the pandemic COVID-19 era.

Source

Clinical and Molecular Allergy; 2020. 18(18):(1 October 2020). 30 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The pandemic COVID-19 abruptly exploded, taking most health professionals around the world unprepared. Italy, the first European country to be hit violently, was forced to activate the lockdown in mid-February 2020. At the time of the spread, a high number of victims were quickly registered, especially in the regions of Northern Italy which have a high rate of highly-polluting production activities. The need to hospitalize the large number of patients with severe forms of COVID-19 led the National Health System to move a large number of specialists from their disciplines to the emergency hospital departments for the treatment of COVID-19. Furthermore, the lockdown itself has limited the possibility for general practitioners and pediatricians to be able to make outpatient visits and/or home care for patients with chronic diseases. Among them, the patient with atopic diseases, such as asthma, rhinitis and atopic dermatitis, is worthy of particular attention as she/he is immersed in a studded negative scenario with the onset of spring, a factor that should not be underestimated for those who suffer from pollen allergy. The Italian Society of Asthma Allergology and Clinical Immunology, to quickly deal with the lack of references and specialist medical procedures, has produced a series of indications for immunologic patient care that are reported in this paper, and can be used as guidelines by specialists of our discipline.

Publication Type

Journal article.

<544>

Accession Number

20203558951

Author

Wang Wei; Xin Can; Xiong ZhongWei; Yan XiXi; Cai YuanKun; Zhou KeYao; Xie ChuanShun; Zhang TingBao; Wu XiaoHui; Liu Kui; Li ZhiQiang; Chen JinCao

Title

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537

Clinical characteristics and outcomes of 421 patients with coronavirus disease 2019 treated in a mobile cabin hospital.

Source

Chest; 2020. 158(3):939-946. 23 ref.

Publisher

American College of Chest Physicians

Location of Publisher

Northbrook

Country of Publication

USA

Abstract

Background: In December 2019, a novel coronavirus-associated pneumonia, now known as coronavirus disease 2019 (COVID-19), was first detected in Wuhan, China. To prevent the rapid spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and treat patients with mild symptoms, sports stadiums and convention centers were reconstructed into mobile hospitals. Research Question: It is unknown whether a mobile cabin hospital can provide a safe treatment site for patients with mild COVID-19 symptoms. Study Design and Methods: This study retrospectively reviewed the medical records of 421 patients with COVID-19 admitted to a mobile cabin hospital in Wuhan from February 9, 2020, to March 5, 2020. Clinical data comprised patient age, sex, clinical presentation, chest imaging, nucleic acid testing, length of hospitalization, and outcomes. Results: Of the patients who were discharged from the cabin hospital, 362 (86.0%) were categorized as recovered; 14.0% developed severe symptoms and were transferred to a designated hospital. The most common presenting symptoms were fever (60.6%) and cough (52.0%); 5.2% exhibited no obvious symptoms. High fever (> 39.0 degrees C) was more common in severe cases than in recovered cases (18.6% vs 6.6%). The distribution of lung lesions was peripheral in 85.0% of patients, multifocal in 69.4%, and bilateral in 68.2%. The most common pattern was ground-glass opacity (67.7%), followed by patchy shadowing (49.2%). The incidence of patchy shadowing was higher in patients with severe disease (66.1%) than in those who recovered (31.8%, P <.0001). The median length of hospitalization was 17 days (interquartile range, 14-19 days), and the median time taken for positive real-time reverse transcriptase polymerase chain reaction results to become negative in recovered patients was 8 days (interquartile range, 6-10 days). Interpretation: Mobile cabin hospitals provide a safe treatment site for patients with mild COVID-19 symptoms and offer an effective isolation area to prevent the spread of severe acute respiratory syndrome coronavirus 2.

Publication Type

Journal article.

<545>

Accession Number

20203558933

Author

Sinha, N.; Balayla, G.

Title

Hydroxychloroquine and COVID-19.

Source

Postgraduate Medical Journal; 2020. 96(1139):550-555. 43 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

  Hydroxychloroquine and chloroquine are medications that have been used for a long time. Their most common use is for the treatment and prophylaxis of malaria. However, these antimalarial drugs are known to also have anti-inflammatory and antiviral effects and are used for several chronic diseases such as systemic lupus erythematosus with low adverse effects. The antiviral action of hydroxychloroquine and chloroquine has been a point of interest to different researchers due to its mechanism of action. Several in vitro studies have proven their effectiveness on severe acute respiratory syndrome virus and currently both in vitro and in vivo studies have been conducted on 2019 novel coronavirus (covid-19). The purpose of this article is to review the history and mechanism of actions of these drugs and the potential use they can have on the current covid-19 pandemic.

Publication Type

  Journal article.

<546>

Accession Number

  20203558896

Author

  Taboe, H. B.; Salako, K. V.; Tison, J. M.; Ngonghala, C. N.; Glele Kakai, R.

Title

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539

Predicting COVID-19 spread in the face of control measures in West Africa.

Source

Mathematical Biosciences; 2020. 328. 56 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

The novel coronavirus (COVID-19) pandemic is causing devastating demographic, social, and economic damage globally. Understanding current patterns of the pandemic spread and forecasting its long-term trajectory is essential in guiding policies aimed at curtailing the pandemic. This is particularly important in regions with weak economies and fragile health care systems such as West Africa. We formulate and use a deterministic compartmental model to (i) assess the current patterns of COVID-19 spread in West Africa, (ii) evaluate the impact of currently implemented control measures, and (iii) predict the future course of the pandemic with and without currently implemented and additional control measures in West Africa. An analytical expression for the threshold level of control measures (involving a reduction in the effective contact rate) required to curtail the pandemic is computed. Considering currently applied health control measures, numerical simulations of the model using baseline parameter values estimated from West African COVID-19 data project a 67% reduction in the daily number of cases when the epidemic attains its peak. More reduction in the number of cases will be achieved if additional public health control measures that result in a reduction in the effective contact rate are implemented. We found out that disease elimination is difficult when more asymptomatic individuals contribute in transmission or are not identified and isolated in a timely manner. However, maintaining a baseline level of asymptomatic isolation and a low transmission rate will lead to a significant reduction in the number of daily cases when the pandemic peaks. For example, at the baseline level of asymptomatic isolation, at least a 46% reduction in the transmission rate is required for disease elimination. Additionally, disease elimination is possible if asymptomatic individuals are identified and isolated within 5 days (after the incubation period). Combining two or more measures is better for disease control, e.g., if asymptomatic cases are contact traced or identified and isolated in less than 8 days, only about 29% reduction in the disease transmission rate is required for disease elimination. Furthermore, we showed that the currently implemented measures triggered a 33% reduction in the time-dependent effective reproduction number between February 28 and June 26, 2020. We conclude that curtailing the COVID-19 pandemic burden significantly in West Africa requires more control measures than those that have already been implemented, as well as more mass testing and contact tracing in order to identify and isolate asymptomatic individuals early.

Publication Type

Journal article.

<547>

Accession Number

  20203558894

Author

  Garba, S. M.; Lubuma, J. M. S.; Tsanou, B.

Title

  Modeling the transmission dynamics of the COVID-19 pandemic in South Africa.

Source

  Mathematical Biosciences; 2020. 328. 60 ref.

Publisher

  Elsevier

Location of Publisher

  New York

Country of Publication

  USA

Abstract

  Since its emergence late in 2019, the COVID-19 pandemic continues to exude major public health and socio-economic burden globally. South Africa is currently the epicenter for the pandemic in Africa. This study is based on the use of a compartmental model to analyze the transmission dynamics of the disease in South Africa. A notable feature of the model is the incorporation of the role of environmental contamination by COVID-infected individuals. The model, which is fitted and parametrized using cumulative mortality data from South Africa, is used to assess the impact of various control and mitigation strategies. Rigorous analysis of the model reveals that its associated continuum of disease-free equilibria is globally-asymptotically stable whenever the control reproduction number is less than unity. The epidemiological implication of this result is that the disease will eventually die out, particularly if control measures are implemented early and for a sustainable period of time. For instance, numerical simulations suggest that if the lockdown measures in South Africa were implemented a week later than the 26 March, 2020 date it was implemented, this will result in the extension of the predicted peak time of the pandemic, and causing about 10% more cumulative deaths. In addition to illustrating the effectiveness of self-isolation in reducing the number of cases, our study emphasizes the importance of surveillance testing and contact tracing of the contacts and confirmed cases in curtailing the pandemic in South Africa.

Publication Type

  Journal article.

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541

<548>

Accession Number

  20203558889

Author

  Ceulemans, M.; Hompes, T.; Foulon, V.

Title

  Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: a call for action.

Source

  International Journal of Gynecology & Obstetrics; 2020. 151(1):146-147. 4 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Increased prevalence of depressive symptoms and anxiety among pregnant women and women in the early postpartum period was observed during the lockdown in Belgium. Obstetricians must take actions to safeguard perinatal mental health.

Publication Type

  Journal article.

<549>

Accession Number

  20203558882

Author

  Bahat, P. Y.; Talmac, M. A.; Bestel, A.; Selcuki, N. F. T.; Karadeniz, O.; Polat, I.

Title

  Evaluating the effects of the COVID-19 pandemic on the physical and mental well-being of obstetricians and gynecologists in Turkey.

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Source

International Journal of Gynecology & Obstetrics; 2020. 151(1):67-73. 23 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Objective: To apply online surveying to assess the general physical and mental well-being of obstetricians/gynecologists (OB/GYNs) working in COVID-19 designated hospitals in Turkey. Methods: A prospective survey-based study using an online survey platform. Three hundred participants working at COVID-19 designated hospitals in Turkey identified from a hospital database were sent a link to the survey by email between April 29 and May 20, 2020. Results: A total of 253 OB/GYNs (31 consultants and 222 residents) completed the survey, for a response rate of 84.3%. Of respondents, 191 (76.4%) were anxious about coming into contact with pregnant women infected with COVID-19.74.4% stated that they were afraid of getting sick. 64.8% reported that they had fallen into despair at times because of the pandemic. 66.5% stated that their family lives were affected. 72.4% started living separately from their families because of the pandemic. Conclusion: Despite the difficulties in patient care during the pandemic, OB/GYNs continued providing for their patients, which reflected positively on their perceptions of the profession. The importance of trust in the national healthcare system, presence of adequate PPE, finding a suitable coping mechanism, and family support were essential for Turkish OB/GYNs during the COVID-19 pandemic.

Publication Type

Journal article.

<550>

Accession Number

20203558878

Author

Ijarotimi, O. A.; Ubom, A. E.; Olofinbiyi, B. A.; Kuye-Kuku, T.; Orji, E. O.; Ikimalo, J. I.

Title

COVID-19 and obstetric practice: a critical review of the Nigerian situation.

Source

International Journal of Gynecology & Obstetrics; 2020. 151(1):17-22. 28 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Objective: To review what is known about COVID-19 and highlight gaps in the context of Nigerian obstetric practice. Research: data on COVID-19 are understandably sparse in Africa. Nigeria, like most African countries, is battling a disease she is poorly equipped to fight. Methods :The current available literature on COVID-19 was reviewed in relation to obstetric practice in the Nigerian context, gaps were identified, and recommendations were made to improve the handling of the COVID-19 pandemic in Nigerian obstetric practice. Results: In and out of hospital, both the obstetrician and the obstetric patient are constantly being put at risk of exposure to the coronavirus because testing and preventive measures are either ineffective or non-existent. Conclusion: The pandemic has exposed the gross inadequacies in Nigeria's healthcare system and is therefore a wake-up call to the need for a complete overhaul of infrastructure and services. The government will do well to increase the budget allocation for health from the current paltry 4.14% to the recommended 15% of the total budget. The Nigerian obstetrician stands a high risk of exposure due to inadequate preventive measures, and testing and diagnostic challenges.

Publication Type

  Journal article.

<551>

Accession Number

  20203558857

Author

  Xiaoming Xu; Ming Ai; Su Hong; Wo Wang; Jianmei Chen; Qi Zhang; Hua Hu; Xuemei Li; Lixia Wang; Jun Cao; Lei Shi; Zhen Lv; Lian Du; Jing Li; Handan Yang; Haitang Qiu; Xiaoting He; Xiaorong Chen; Ran Chen; Qinghua Luo; Xinyu Zhou; Jian Tan; Jing Tu; Guanghua Jiang; Zhiqin Han; Nkundimana Baltha; Li Kuang

Title

  The psychological status of 8817 hospital workers during COVID-19 epidemic: a cross-sectional study in Chongqing.

Source

  Journal of Affective Disorders; 2020. 276:555-561. 40 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: There was an outbreak of COVID-19 towards the end of 2019 in China, which spread all over the world rapidly. The Chinese healthcare system is facing a big challenge where hospital workers are experiencing enormous psychological pressure. This study aimed to (1) investigate the psychological status of hospital workers and (2) provide references for psychological crisis intervention in the future. Method: An online survey was conducted to collect sociodemographic features, epidemic-related factors, results of PHQ-9, GAD-7, PHQ-15, suicidal and self-harm ideation (SSI), and the score of stress and support scales. Chi-square test, t-test, non-parametric, and logistic regression analysis were used to detect the risk factors to psychological effect and SSI. Results 8817 hospital workers participated in this online survey. The prevalence of depression, anxiety, somatic symptoms, and SSI were 30.2%, 20.7%, 46.2%, and 6.5%, respectively. Logistic regression analysis showed that female, single, Tujia minority, educational background of junior or below, designated or county hospital, need for psychological assistance before or during the epidemic, unconfident about defeating COVID-19, ignorance about the epidemic, willingness of attending parties, and poor self-rated health condition were independent factors associated with high-level depression, somatic symptom, and SSI among hospital workers (P < 0.05). Limitations This cross-sectional study cannot reveal the causality, and voluntary participation could be prone to selection bias. A modified epidemic-related stress and support scale without standardization was used. The number of hospital workers in each hospital was unavailable. Conclusion There were a high level of psychological impact and SSI among hospital workers, which needed to be addressed. County hospital workers were more severe and easier to be neglected. More studies on cognitive and behavioral subsequence after a public health disaster among hospital workers are needed.

Publication Type

Journal article.

<552>

Accession Number

20203558852

Author

Zhao HongYu; He XiaoYi; Fan GuanHua; Li LiPing; Huang QingJun; Qiu QinMing; Kang ZheWei; Du TaiFeng; Han Ling; Ding Lei; Xu HaiYun

Title

COVID-19 infection outbreak increases anxiety level of general public in China: involved mechanisms and influencing factors.

Source

Journal of Affective Disorders; 2020. 276:446-452. 32 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: COVID-19 outbreak happened last December in China and is still continuing. Here, we reported effects of COVID-19 outbreak on the mood of general public and ascertained impacts of psychosocial factors on the plague-related emotional measures. Methods: During Feb. 4-6, 2020, a self-reported questionnaire Beck Anxiety Inventory (BAI) was disseminated to general public via Wechat, along with a sociodemographic information sheet. BAI score and incidences of moderate and severe anxiety in subgroups of respondents were compared. Multiple linear and logistic regressions were done for correlation analysis and to identify factors predictive of anxiety. Results: Averaged BAI score of all respondents is higher than those of general public in two previous studies. The people quarantined for probable COVID-19 infection presented higher BAI score and incidences of moderate and severe anxiety relative to non-quarantined respondents. People in high epidemic area showed higher BAI score and incidences of moderate and severe anxiety compared to those in low epidemic area. Significant associations existed between anxiety level of the respondents and each of the investigated factors, except for gender. Quarantine was the predictor with a highest OR, followed by divorced/widow. The other factors showed smaller but significant effects on the anxiety level of respondents. Limitations: This cross-sectional study was unable to track the emotional changes in the respondents over time. It had a relatively small sample and involved some of emotional measures only. Conclusion: These data are of help in planning psychological interventions for the different subpopulations in general public during and after COVID-19 outbreak.

Publication Type

Journal article.

<553>

Accession Number

20203558847

Author

An Ying; Yang Yuan; Wang AiPing; Li Yue; Zhang QinGe; Cheung Teris; Ungvari, G. S.; Qin MingZhao; An FengRong; Xiang YuTao

Title

Prevalence of depression and its impact on quality of life among frontline nurses in emergency departments during the COVID-19 outbreak.

Source

Journal of Affective Disorders; 2020. 276:312-315. 35 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: Frontline medical staff exposed to the novel coronavirus disease (COVID-19) could be psychologically and mentally exhausted. This study examined the prevalence of depressive symptoms (depression hereafter) and their correlates and the association between depression and quality of life (QOL) in Emergency Department (ED) nurses during the COVID-19 pandemic in China. Methods: This national, cross-sectional online survey was conducted between March 15 and March 20, 2020 in China. Depression and QOL were measured using the 9-item Patient Health Questionnaire, and the World Health Organization Quality of Life Questionnaire-Brief Version, respectively. Results: The overall prevalence of depression in 1103 ED nurses was 43.61% (95% CI=40.68-46.54%). Multiple logistic regression analysis revealed that working in tertiary hospitals (OR=1.647, P=0.009), direct patient care of COVID-19 patients (OR=1.421, P=0.018), and current smokers (OR=3.843, P < 0.001) were significantly associated with depression. After controlling for covariates, nurses with depression had an overall lower QOL compared to those without (F(1,1103)=423.83, P < 0.001). Conclusion: Depression was common among ED nurses during the COVID-19 pandemic. Considering the negative impact of depression on quality of patient care and nurses' QOL, a heightened awareness of, and early treatment for depression for frontline ED nurses should be provided.

Publication Type

Journal article.

<554>

Accession Number

20203558840

Author

Islam, M. S.; Ferdous, M. Z.; Potenza, M. N.

Title

Panic and generalized anxiety during the COVID-19 pandemic among Bangladeshi people: an online pilot survey early in the outbreak.

Source

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: Precisely how the COVID-19 pandemic has impacted mental health worldwide is currently poorly understood. The study aimed to assess panic and anxiety among individuals in the general Bangladesh population early in the COVID-19 outbreak. Methodology: A cross-sectional online survey was conducted from March 29 to April 06, 2020, involving 1311 community-dwelling individuals aged between 13 and 63 years and residing in Bangladesh. After providing informed consent, participants completed an online survey assessing socio-demographic variables and using the Panic Disorder Severity Scale and Generalized Anxiety Disorder (GAD-7) to assess panic and anxiety symptomatology, respectively. Binary logistic regression analyses were conducted. Results: Estimates of panic and generalized anxiety were 79.6%, and 37.3%, respectively. Factors statistically predicting panic were being older (more than 30 years), having higher education (above bachelor), being married, and living with a joint family. Factors statistically predicting generalized anxiety were being female, being older (more than 30 years), having higher education (above bachelor), being married, being a non-governmental employee. Limitations: As this study employs the cross-sectional and self-reported measures, causal inferences cannot be indicated. Sampling biases may have influenced estimates of panic and generalized anxiety. Conclusion: Sizable proportions of respondents reported panic and generalized anxiety in the setting of COVID-19. The findings suggest the need for additional surveillance of panic and generalized anxiety through longitudinal assessments. Evidence-based intervention programs and supportive services to address panic and generalized anxiety appear important for Bangladeshi individuals during this stage (and likely later stages) of the COVID-19 pandemic.

Publication Type

Journal article.

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548

<555>

Accession Number

20203558837

Author

Surya Kant

Title

COVID-19 impact on health care workers.

Source

Journal of the Indian Medical Association; 2020. 118(9):64-69. 15 ref.

Publisher

Indian Medical Association (IMA)

Location of Publisher

Kolkata

Country of Publication

India

Abstract

Novel Corona Virus causes COVID 19 (Corona Virus Disease of 2019) infection. In December 2019, SARS(Severe Acute Respiratory Syndrome) -CoV-2, was first recognized in Wuhan, China. Genetic sequencing of the virus suggests that SARS-CoV-2 is a beta -coronavirus; which is intimately linked to the SARS virus. Mostly patient develop mild or uncomplicated illness, but 14% often them leads to severe disease which needs hospitalization and oxygen therapy and among them 5% need intensive care.[1]. Health Care employees are at the frontline of this pandemic taking care of infected patients and thereby are at a greater risk of acquiring infection. Health workers impart a crucial job not only in the management of the sick, but also ensures adequacy of infection control and its prevention of infection. Systematic literature are scarce but available sources reflect an infection rate of 1% among health care workers (HCW's) with female preponderance. HCW's of all ages got infected but those with age greater than 55 years had high mortality after being infected. Case fatality rate among HCW's varied across the globe with 0.9% in China to almost 6.1% in India. Ignorance about the epidemiology and transmission of the disease, lack of protective gears due to epidemic unpreparedness were main attributable factors for infection in HCW's. This pandemic has shown great impact on mental health as well as on social wellbeing of health care workers. A proportion of the workforce are faced with depression(22.8%), insomnia(34.3%) and anxiety disorders(23.2%) leading to untoward consequences in few cases. Understanding COVID-19 infection and its impact on health workers is crucial not only for characterizing the transmission pattern of the virus but also as a means of prevention of the infection amongst the providers of health care who have a key role in saving the world from this pandemic.

Publication Type

Journal article.

<556>

Accession Number

  20203558835

Author

  Umesh Gupta

Title

  Proposal for an affordable and sustainable universal health cover model for India : LAN, WAN and SAN.

Source

  Journal of the Indian Medical Association; 2020. 118(9):20-25. 12 ref.

Publisher

  Indian Medical Association (IMA)

Location of Publisher

  Kolkata

Country of Publication

  India

Abstract

  A unique model of Universal Health Cover in India is proposed for funding by government and service delivery by private generalist doctors. This model contrasts with the current government schemes of funding only in-patient services by the private sector and ignoring primary health care as an overall cost-reduction strategy. The current government schemes rely on public facilities to deliver out-patient services, even while 70% of such services are availed from private practitioners. The proposed model would have been highly effective in the current Covid-19 crisis and will enable a much more robust response to future pandemics and other disasters. Local Area Health Networks (LAN) are proposed, based on residential pin codes, comprising of private generalists, public facilities, and diagnostic centers. The beneficiaries of the model would be able to obtain services from within the Local Area Health Networks and refer to designated hospitals only for in-patient services. Virtual Local Area Health Networks (VLAN) are areas without the health services and these areas van be attached to LAN. Legislative assemblies define the boundaries of Wide Area Health Networks (WLAN) that link up LAN and VLAN for integrated professional management of healthcare. A group of LANs can lead to a tertiary care provider to create Systems Area Health Networks (SAN) for super-specialties. Payments are proposed to be made on a Prospective Payment System based on Diagnosis Related Groups and accounting for geographical variations, with incentives for clinical quality. The cost of the proposed model for 100% Universal Health Cover is estimated to be about Rs. 11,369 crores for out-patient services and Rs. 28,896 crores for in-patient services. The estimates are based on a detailed analysis of data from the 75th Round of NSS Report and case-mix costing has been applied.

Publication Type

  Journal article.

<557>

Accession Number

20203558816

Author

Chang, J. C. Y.; Chen YouHsu; Lin MengChen; Li YiJing; Hsu TehFu; Huang HsienHao; Yen, D. H. T.

Title

Emergency department response to coronavirus disease 2019 outbreak with a fever screening station and "graded approach" for isolation and testing.

Source

Journal of the Chinese Medical Association; 2020. 83(11):997-1003. 15 ref.

Publisher

Wolters Kluwer Health

Location of Publisher

Riverwoods

Country of Publication

USA

Abstract

Background: Ever since coronavirus disease 2019 (COVID-19) emerged in Wuhan, China, in December 2019, it has had a devastating effect on the world through exponential case growth and death tolls in at least 146 countries. Rapid response and timely modifications in the emergency department (ED) for infection control are paramount to maintaining basic medical services and preventing the spread of COVID-19. This study presents the unique measure of combining a fever screening station (FSS) and graded approach to isolation and testing in a Taiwanese medical center. Methods: An FSS was immediately set up outside the ED on January 27, 2019. A graded approach was adopted to stratify patients into "high risk", "intermediate risk", and "undetermined risk" for both isolation and testing. Results: A total of 3755 patients were screened at the FSS, with 80.3% visiting the ED from home, 70.9% having no travel history, 21.4% having traveled to Asia, and 10.0% of TVGH staff. Further, 54.9% had fever, 35.5% had respiratory symptoms, 3.2% had gastrointestinal symptoms, 0.6% experienced loss of smell, and 3.1% had no symptoms; 81.3% were discharged, 18.6% admitted, and 0.1% died. About 1.9% were admitted to the intensive care unit, 10.3% to the general ward, and 6.4% were isolated. Two patients tested positive for COVID-19 (0.1%) and 127 (3.4%) tested positive for atypical infection; 1471 patients were tested for COVID-19; 583 were stratified as high-risk, 781 as intermediate-risk, and 107 as undetermined-risk patients. Conclusion: Rapid response for infection control is a paramount in the ED to confront the COVID-19 outbreak. The FFS helped divide the flow of high- and intermediate-risk patients; it also decreased the ED workload during a surge of febrile patients. A graded approach to testing uses risk stratification to prevent nosocomial infection of asymptomatic patients. A graded approach to isolation enables efficient allocation of scarce medical resources according to risk stratification.

Publication Type

Journal article.

<558>

Accession Number

  20203558701

Author

  Meccariello, G.; Cammaroto, G.; Iannella, G.; Capaccio, P.; Pelucchi, S.; Vicini, C.

Title

  Minimizing contagion risks of COVID-19 during transoral robotic surgery.

Source

  Laryngoscope; 2020. 130(11):2593-2594. 13 ref.

Publisher

  Wiley

Location of Publisher

  Hoboken

Country of Publication

  USA

Abstract

  In this communication, we would like to share our experience in managing TORS patients during COVID-19 pandemic.

Publication Type

  Journal article.

<559>

Accession Number

  20203558626

Author

Howard, G.; Bartram, J.; Brocklehurst, C.; Colford, J. M., Jr.; Costa, F.; Cunliffe, D.; Dreibelbis, R.; Eisenberg, J. N. S.; Evans, B.; Hrudey, S.; Willetts, J.; Wright, C. Y.; Girones, R.

Title

COVID-19: urgent actions, critical reflections and future relevance of 'WaSH': lessons for the current and future pandemics.

Source

Journal of Water, Sanitation and Hygiene for Development; 2020. 10(3):379-396. many ref.

Publisher

IWA Publishing

Location of Publisher

London

Country of Publication

UK

Abstract

The COVID-19 pandemic placed hygiene at the centre of disease prevention. Yet, access to the levels of water supply that support good hand hygiene and institutional cleaning, our understanding of hygiene behaviours, and access to soap are deficient in low-, middle- and high-income countries. This paper reviews the role of water, sanitation and hygiene (WaSH) in disease emergence, previous outbreaks, combatting COVID-19 and in preparing for future pandemics. We consider settings where these factors are particularly important and identify key preventive contributions to disease control and gaps in the evidence base. Urgent substantial action is required to remedy deficiencies in WaSH, particularly the provision of reliable, continuous piped water on-premises for all households and settings. Hygiene promotion programmes, underpinned by behavioural science, must be adapted to high-risk populations (such as the elderly and marginalised) and settings (such as healthcare facilities, transport hubs and workplaces). WaSH must be better integrated into preparation plans and with other sectors in prevention efforts. More finance and better use of financing instruments would extend and improve WaSH services. The lessons outlined justify no-regrets investment by government in response to and recovery from the current pandemic; to improve day-to-day lives and as preparedness for future pandemics.

Publication Type

Journal article.

<560>

Accession Number

20203558484

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553

Author

 Fantini, M. P.; Reno, C.; Biserni, G. B.; Savoia, E.; Lanari, M.

Title

 COVID-19 and the re-opening of schools: a policy maker's dilemma.

Source

 Italian Journal of Pediatrics; 2020. 46(79):(9 June 2020). 10 ref.

Publisher

 BioMed Central Ltd

Location of Publisher

 London

Country of Publication

 UK

Abstract

 The epidemic of coronavirus disease 2019 (COVID-19) broke out in Wuhan, China, in December 2019 and rapidly spread across the world. In order to counter this epidemic, several countries put in place different restrictive measures, such as the school's closure and a total lockdown. However, as the knowledge on the disease progresses, clinical evidence showed that children mainly have asymptomatic or mild disease and it has been suggested that they are also less likely to spread the virus. Moreover, the lockdown and the school closure could have negative consequences on children, affecting their social life, their education and their mental health. As many countries have already entered or are planning a phase of gradual lifting of the containment measures of social distancing, it seems plausible that the re-opening of nursery schools and primary schools could be considered a policy to be implemented at an early stage of recovery efforts, putting in place measures to do it safely, such as the maintenance of social distance, the reorganisation of classes into smaller groups, the provision of adequate sanitization of spaces, furniture and toys, the prompt identification of cases in the school environment and their tracing. Therefore, policy makers have the task of balancing pros and cons of the school re-opening strategy, taking into account psychological, educational and social consequences for children and their families. Another issue to be considered is represented by socio-economic disparities and inequalities which could be amplified by school's closure.

Publication Type

 Correspondence.

<561>

Accession Number

 20203558461

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554

Author

Lian JiangShan; Jin Xi; Hao ShaoRui; Jia HongYu; Cai Huan; Zhang XiaoLi; Hu JianHua; Zheng Lin; Wang XiaoYan; Zhang ShanYan; Ye ChanYuan; Jin CiLiang; Yu GuoDong; Gu JueQing; Lu YingFeng; Yu XiaoPeng; Xiang DaiRong; Li LanJuan; Liang TingBo; Sheng JiFang; Yang YiDa

Title

Epidemiological, clinical, and virological characteristics of 465 hospitalized cases of coronavirus disease 2019 (COVID-19) from Zhejiang Province in China.

Source

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the associated coronavirus disease (COVID-19) have spread throughout China. Previous studies predominantly focused on its place of origin, Wuhan, causing over estimation of the disease severity due to selection bias. We analyzed 465 confirmed cases in Zhejiang province to determine the epidemiological, clinical, and virological characteristics of COVID-19. Methods: Epidemiological, demographic, clinical, laboratory, and management data from qRT-PCR confirmed COVID-19 patients from January 17, 2020, to January 31, 2020, were collected, followed by multivariate logistic regression analysis for independent predictors of severe/critical-type COVID-19 and bioinformatic analysis for features of SARS-CoV-2 from Zhejiang province. Results: Among 465 COVID-19 patients, median age was 45 years, while hypertension, diabetes, and chronic liver disease were the most common comorbidities. History of exposure to the epidemic area was present in 170 (36.56%) and 185 (39.78%) patients were clustered in 77 families. Severe/critical-type of COVID-19 developed in 49 (10.54%) patients. Fever and cough were the most common symptoms, while diarrhea/vomiting was reported in 58 (12.47%) patients. Multivariate analysis revealed eight risk factors for severe/critical COVID-19. Glucocorticoids and antibiotics were administered to 60 (12.90%) and 218(46.88%) patients, respectively. Bioinformatics showed four single amino acid mutations and one amino acid position loss in SARS-CoV-2 from Zhejiang province, with more similarity to humans than to viruses. Conclusions: SARS-CoV-2 showed virological mutations and more human transmission in Zhejiang province, indicating considerable epidemiological and clinical changes. Caution in glucocorticoid and antibiotics use is advisable.

Publication Type

Journal article.

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555

<562>

Accession Number

 20203558449

Author

 Lambkin-Williams, R.; Devincenzo, J. P.

Title

 A COVID-19 human viral challenge model. Learning from experience.

Source

 Influenza and other Respiratory Viruses; 2020. 14(6):747-756. 52 ref.

Publisher

 Wiley

Location of Publisher

 Oxford

Country of Publication

 UK

Abstract

  The controlled human infection model and specifically the human viral challenge model are not dissimilar to standard clinical trials while adding another layer of complexity and safety considerations. The models deliberately infect volunteers, with an infectious challenge agent to determine the effect of the infection and the potential benefits of the experimental interventions. The human viral challenge model studies can shorten the time to assess the efficacy of a new vaccine or treatment by combining this with the assessment of safety. The newly emerging SARS-CoV-2 virus is highly contagious, and an urgent race is on to develop a new vaccine against this virus in a timeframe never attempted before. The use of the human viral challenge model has been proposed to accelerate the development of the vaccine. In the early 2000s, the authors successfully developed a pathogenic human viral challenge model for another virus for which there was no effective treatment and established it to evaluate potential therapies and vaccines against respiratory syncytial virus. Experience gained in the development of that model can help with the development of a COVID-19 HVCM and the authors describe it here.

Publication Type

 Journal article.

<563>

Accession Number

  20203558444

Author

  Lei Hui; Ye Feng; Liu XiaoQing; Huang ZhenTing; Ling ShiMan; Jiang ZhanPeng; Cheng Jing; Huang XiaoQun; Wu QiuBao; Wu ShiGuan; Xie YanMin; Xiao Cheng; Ye Dan; Yang ZiFeng; Li YiMin; Leung, N. H. L.; Cowling, B. J.; He JianXing; Wong SookSan; Zanin, M.

Title

  SARS-CoV-2 environmental contamination associated with persistently infected COVID-19 patients.

Source

  Influenza and other Respiratory Viruses; 2020. 14(6):688-699. 19 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Background: Severe COVID-19 patients typically test positive for SARS-CoV-2 RNA for extended periods of time, even after recovery from severe disease. Due to the timeframe involved, these patients may have developed humoral immunity to SARS-CoV-2 while still testing positive for viral RNA in swabs. Data are lacking on exposure risks in these situations. Here, we studied SARS-CoV-2 environmental contamination in an ICU and an isolation ward caring for such COVID-19 patients. Methods: We collected air and surface samples in a hospital caring for critical and severe COVID-19 cases from common areas and areas proximal to patients. Results: Of the 218 ICU samples, an air sample contained SARS-CoV-2 RNA. Of the 182 isolation ward samples, nine contained SARS-CoV-2 RNA. These were collected from a facemask, the floor, mobile phones, and the air in the patient room and bathroom. Serum antibodies against SARS-CoV-2 were detected in these patients at the beginning of the study. Conclusions: While there is a perception of increased risk in the ICU, our study demonstrates that isolation wards may pose greater risks to healthcare workers and exposure risks remain with clinically improved patients, weeks after their initial diagnoses. As these patients had serum antibodies, further studies may be warranted to study the utility of serum antibodies as a surrogate of viral clearance in allowing people to return to work. We recommend continued vigilance even with patients who appear to have recovered from COVID-19.

Publication Type

  Journal article.

<564>

Accession Number

20203558407

Author

Lai, T. H. T.; Tang, E. W. H.; Chau, S. K. Y.; Fung, K. S. C.; Li, K. K. W.

Title

Stepping up infection control measures in ophthalmology during the novel coronavirus outbreak: an experience from Hong Kong.

Source

Graefe's Archive for Clinical and Experimental Ophthalmology; 2020. 258(5):1049-1055. 26 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

Purpose: Coronavirus disease (COVID-19) has rapidly emerged as a global health threat. The purpose of this article is to share our local experience of stepping up infection control measures in ophthalmology to minimise COVID-19 infection of both healthcare workers and patients. Methods: Infection control measures implemented in our ophthalmology clinic are discussed. The measures are based on detailed risk assessment by both local ophthalmologists and infection control experts. Results: A three-level hierarchy of control measures was adopted. First, for administrative control, in order to lower patient attendance, text messages with an enquiry phone number were sent to patients to reschedule appointments or arrange drug refill. In order to minimise cross-infection of COVID-19, a triage system was set up to identify patients with fever, respiratory symptoms, acute conjunctivitis or recent travel to outbreak areas and to encourage these individuals to postpone their appointments for at least 14 days. Micro-aerosol generating procedures, such as non-contact tonometry and operations under general anaesthesia were avoided. Nasal endoscopy was avoided as it may provoke sneezing and cause generation of droplets. All elective clinical services were suspended. Infection control training was provided to all clinical staff. Second, for environmental control, to reduce droplet transmission of COVID-19, installation of protective shields on slit lamps, frequent disinfection of equipment, and provision of eye protection to staff were implemented. All staff were advised to measure their own body temperatures before work and promptly report any symptoms of upper respiratory tract infection, vomiting or diarrhoea. Third, universal masking, hand hygiene, and appropriate use of personal protective equipment (PPE) were promoted. Conclusion: We hope our initial experience in stepping up infection control measures for COVID-19 infection in ophthalmology can help ophthalmologists globally to prepare for the potential community outbreak or pandemic. In order to minimise transmission of COVID-19, ophthalmologists should work closely with local infection control teams to implement infection control measures that are appropriate for their own clinical settings.

Publication Type

Journal article.

<565>

Accession Number

20203558274

Author

Adhikari, B.; Budhathoki, S. S.

Title

Silver-lining in the time of mayhem: the role of local governments of Nepal during the COVID-19 pandemic.

Source

JNMA, Journal of the Nepal Medical Association; 2020. 58(231):960-964. 14 ref.

Publisher

Nepal Medical Association

Location of Publisher

Kathmandu

Country of Publication

Nepal

Abstract

The COVID-19 pandemic has not only affected health systems but also has had deep socio-economic effects. The lockdown enforced in Nepal, had people running out of means to make ends meet, the public in fear of an unknown disease, and challenges for leaders to deliver better. Local governments of Nepal, established under the federal system, have the closest ties to the community. They have powers entrusted by the constitution to enact laws according to the needs of the community. During the 83 days of lockdown, the local governments came through for their inhabitants by managing quarantines and isolation centers, taking care of diagnostics, providing food and rations, and arranging facilities to bring back their locals stranded in other cities. The local governments improved awareness and helped maintain the lockdown. These undertakings by the local governments of Nepal highlight the importance of a community-based approach to dealing with pandemics.

Publication Type

Journal article.

<566>

Accession Number

  20203558259

Author

  Bhandari, S.; Sharma, M.; Shrestha, G. S.

Title

  Knowledge of COVID-19 among health care workers at a tertiary care hospital of Nepal: a descriptive cross-sectional study.

Source

  JNMA, Journal of the Nepal Medical Association; 2020. 58(231):905-910. 22 ref.

Publisher

  Nepal Medical Association

Location of Publisher

  Kathmandu

Country of Publication

  Nepal

Abstract

  Introduction: Health care workers are at higher risk of infection with the coronavirus disease as they are directly involved in the treatment of infected patients and perform aerosol-generating procedures. Proper knowledge of this disease can influence the positive attitude, good practices and enhance their safety. We aim to study the knowledge of COVID-19 among health care workers of the tertiary care hospital of Nepal. Methods: A descriptive cross-sectional study was conducted among health care workers of Shahid Gangalal National Heart Centre from May 20 to June 19, 2020. Ethical approval was taken from the Institutional Review Board (IRB No: 4-2020). Written informed consent was taken from all respondents. Correct answers were summated to reflect the mean knowledge, expressed as a percentage. Data analysis was done using Statistical Package for the Social Sciences version 21. Results: The mean general knowledge score was 95.7%. The mean medical knowledge score was 70.5%. Only 42 (56.8%) of physicians and 103 (53.6%) of nurses had a higher level of medical knowledge regarding COVID-19. Likewise, very few lab technicians 7 (21.9%) and none of the pharmacists had a higher level of medical knowledge. Conclusions: The healthcare workers of this centre have adequate knowledge regarding COVID-19. However, periodic training for all workers, especially the nurses and allied workers, may help to update the knowledge and hence enhance their safety and that of their patients.

Publication Type

  Journal article.

<567>

Accession Number

  20203558157

Author

  Aslani, N.; Lazem, M.; Mahdavi, S.; Garavand, A.

Title

  A review of mobile health applications in epidemic and pandemic outbreaks: lessons learned for COVID-19.

Source

  Archives of Clinical Infectious Diseases; 2020. 15(4). 46 ref.

Publisher

  Kowsar Medical Publishing

Location of Publisher

  Heerlen

Country of Publication

  Netherlands

Abstract

  Context: Using smart mobile devices, called mobile health (mHealth), facilitates providing health services, speeds up the process, and reduces the costs and complications of direct services. Also, mHealth has many capabilities and applications in epidemic and pandemic outbreaks. This study aimed to identify mHealth applications in epidemic/pandemic outbreaks and provide some suggestions for tackling COVID-19. Methods: To find the relevant studies, searches were done in PubMed and Scopus by related keywords during 2014 - 2020 (March 10). After selecting the studies based on the inclusion and exclusion criteria, data were collected by a data-gathering form. Results: Of the 727 retrieved studies, 17 studies were included. All studies emphasized the positive effect of mHealth for use in epidemic/pandemic outbreaks. The main applications of mHealth for epidemic/pandemic outbreaks included public health aspects, data management, educational programs, diagnosis, and treatment. Conclusions: mHealth is an appropriate method for encountering epidemic/pandemic outbreaks due to its extensive applications. In the pandemic outbreak of COVID-19, mHealth is one of the best choices to use in the patient-physician relationship as tele-visits, using in fever coach, providing real-time information for healthcare providers, population monitoring, and detecting the disease based on obtained data from different locations.

Publication Type

  Journal article.

<568>

Accession Number

  20203558129

Author

  Sarasty, O.; Carpio, C. E.; Hudson, D.; Guerrero-Ochoa, P. A.; Borja, I.

Title

  The demand for a COVID-19 vaccine in Ecuador.

Source

  Vaccine; 2020. 38(51):8090-8098. 67 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  In Latin America, the country of Ecuador was one of the first and most severely affected by the COVID-19 pandemic. This study aimed to evaluate the demand for a COVID-19 vaccine in Ecuador by estimating individuals' willingness to pay (WTP) for the vaccine, and by assessing the effect of vaccine attributes (duration of protection and efficacy) and individuals' characteristics on this valuation. The sample used (N = 1,050) was obtained through an online survey conducted from April 2 to April 7, 2020. Two levels of vaccine efficacy (70% and 98%) and two levels of vaccine duration of protection (1 and 20 years) were considered. The willingness to pay estimates were obtained using a double-bounded dichotomous-choice contingent valuation format. Survey results show that a very large proportion of individuals (at least 97%) were willing to accept a COVID-19 vaccine, and at least 85% of individuals were willing to pay a positive amount for that vaccine. Conservative estimates of the average WTP values ranged from USD 147.61 to 196.65 and the median WTP from USD 76.9 to 102.5. Only the duration of protection was found to influence individuals' WTP for the vaccine ($p < 0.01$). On average, respondents were willing to pay 30% more for a COVID-19 vaccine with 20 years of protection relative to the vaccine with 1 year of protection. Regression results show that WTP for the vaccine was associated with income, employment status, the perceived probability of needing hospitalization if contracting the virus causing COVID-19, and region of residence.

Publication Type

  Journal article.

<569>

Accession Number

  20203557904

Author

  Davies, E.; McConn-Palfreyman, W.; Williams, J. M.; Lovell, G. P.

Title

  The impact of COVID-19 on staff working practices in UK horseracing.

Source

  Animals; 2020. 10(11). many ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Due to COVID-19, horseracing was required to cease all activity in March 2020; however, little is known about the pandemic's impact on staff working practices. This study investigated the impact of COVID-19 on staff working practices during the initial lockdown phases. An online survey about working conditions during lockdown was answered by 287 participants. Chi-squared tests for independence and binary logistic regression (BLR) analysis was undertaken. A total of 53.7% (n = 154) of staff were working during lockdown. Pandemic-specific workplace changes were reported as effective by 87.8% (n = 115) of staff. Flat grooms reported workplace changes as less effective (X2 (52, n = 131) = 92.996, p < 0.001). A total of 67.2% (n = 193) of staff were positive about job security. Trainers and grooms were significantly less likely to report jobs as secure (X2 (52, n = 287) = 75.653, p < 0.05). The findings suggest that most of the racing industry positively received changes made by their employers to tackle the pandemic, and for staff still working during lockdown, their health and safety was prioritised. Continued development of employee support structures to promote job security and workforce stability is advised, which will minimise the disruption of staff changes on the care and welfare of the horses.

Publication Type

  Journal article.

<570>

Accession Number

 20203557771

Author

 Arruda, A. G.; Beyene, T. J.; Kieffer, J.; Lorbach, J. N.; Moeller, S.; Bowman, A. S.

Title

 A systematic literature review on depopulation methods for swine.

Source

 Animals; 2020. 10(11). 74 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

Abstract

 Swine mass depopulation refers to the destruction of large numbers of pigs and may include not only animals affected with a disease but also healthy pigs in a facility or surrounding areas. Emerging applications of mass depopulation include reducing welfare issues associated with slaughter delays, which was observed in the United States in 2020 as a result of the Coronavirus disease (COVID-19) pandemic. The objectives of this review were to summarize the available literature on swine depopulation methods and to highlight critical gaps in knowledge. Peer-reviewed articles were identified through a systematic search in electronic databases including Web of Science, MEDLINE, and PubMed. A total of 68 publications were assessed. Gaseous carbon dioxide inhalation was the most commonly reported depopulation method for both small- and large-scale trials. Measurements of consciousness state, which serves to assess suffering and humaneness, appeared to be lacking in a high proportion of the studies. None of the published studies demonstrated an ideally reliable and safe way to induce rapid unconsciousness in large groups of pigs. Development of rapid mass depopulation methods applicable to large groups of pigs is necessary to provide industry partners with suitable and low-cost emergency preparedness procedures while adhering to personnel safety and animal welfare standards. Lastly, there is an urgent need to standardize comprehensive reporting guidelines for depopulation studies.

Publication Type

 Journal article.

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564

<571>

Accession Number

  20203557639

Author

  Rolland, Y.; Lacoste, M. H.; Mauleon, A. de; Ghisolfi, A.; Barreto, P. de S.; Blain, H.; Villars, H.

Title

  Guidance for the prevention of the COVID-19 epidemic in long-term care facilities: a short-term prospective study.

Source

  Journal of Nutrition, Health & Aging; 2020. 24(8):812-816. 12 ref.

Publisher

  Springer

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  Background: Guidance aiming at limiting the entry and spread of the COVID-19 have been widely communicated to Long-term Care Facilities (LTCFs). However, no clinical research has investigated their relevance. Background: Our objective was to compare the guidance applied for the prevention of the COVID- 19 epidemic between the LTCFs having been contaminated by COVID-19 and LTCFs having not been contaminated. Methods: A questionnaire was sent and systematically accompanied by phone call to the 132 LTCFs of Haute-Garonne (Occitania region, South-West of France). The questionnaire focused on the preventive measures implemented before March 23, 2020 (first LTCFs contaminated in this area). The questionnaire focused on physician support, implementation of usual guidance (eg, masks, hydro-alcoholic solute used), training on hygiene, containment in residents' rooms and other distancing measures, use of temporary workers, compartmentalization within zones of residents and staff and a self-assessment analogic scale on the quality of the application of the preventive measures. We compared implementation of the guidance between the LTCFs with at least one case of COVID-19 among residents and/or health care professionals and LTCFs without COVID-19 case (between March 23rd and May 6th). Results: 124 LTCFs participated (93.9%). 30 LTCFs (24.19%) were contaminated with COVID-19. Large heterogeneity of the application of the guidance was observed. Public LTCFs (OR= 0.39 (0.20-0.73)), LTCFs which organized staff compartmentalization within zones (OR= 0.19 (0.07-0.48)), and LTCF with a staff who self-assessed a higher quality implementation of the preventive measures (OR= 0.65 (0.43-0.98)) were significantly more likely to avoid contamination by the COVID-19 outbreak. Conclusion: Our study supports the relevance of guidance to prevent the entry of COVID- 19, in particular the staff compartmentalization within zones, as well as the perception of the staff regarding the quality of implementation of those measures in LTCFs.

Publication Type

  Journal article.

<572>

Accession Number

  20203557600

Author

  Garcez, F. B.; Aliberti, M. J. R.; Poco, P. C. E.; Hiratsuka, M.; F. Takahashi, S. de; Coelho, V. A.; Salotto, D. B.; Moreira, M. L. V.; Jacob-Filho, W.; Avelino-Silva, T. J.

Title

  Delirium and adverse outcomes in hospitalized patients with COVID-19.

Source

  Journal of the American Geriatrics Society; 2020. 68(11):2440-2446. 30 ref.

Publisher

  Wiley

Location of Publisher

  Boston

Country of Publication

  USA

Abstract

  BACKGROUND: Little is known about the association between acute mental changes and adverse outcomes in hospitalized adults with COVID-19. OBJECTIVES: To investigate the occurrence of delirium in hospitalized patients with COVID-19 and explore its association with adverse outcomes. DESIGN: Longitudinal observational study. SETTING: Tertiary university hospital dedicated to the care of severe cases of COVID-19 in Sao Paulo, Brazil. PARTICIPANTS: A total of 707 patients, aged 50 years or older, consecutively admitted to the hospital between March and May 2020. MEASUREMENTS: We completed detailed reviews of electronic medical records to collect our data. We identified delirium occurrence using the Chart-Based Delirium Identification Instrument (CHART-DEL). Trained physicians with a background in geriatric medicine completed all CHART-DEL assessments. We complemented our baseline clinical information using telephone interviews with participants or their proxy. Our outcomes of interest were in-hospital death, length of stay, admission to intensive care, and ventilator utilization. We adjusted all multivariable analyses for age, sex, clinical history, vital signs, and relevant laboratory biomarkers (lymphocyte count, C-reactive protein, glomerular filtration rate, D-dimer, and albumin). RESULTS: Overall, we identified delirium in 234 participants (33%). On admission, 86 (12%) were delirious. We observed 273 deaths (39%) in our sample, and in-hospital mortality reached 55% in patients who experienced delirium. Delirium was associated with in-hospital death, with an adjusted odds ratio of 1.75 (95% confidence interval = 1.15-2.66); the association held both in middle-aged and older adults. Delirium was also associated with increased length of stay, admission to intensive care, and ventilator utilization. CONCLUSION: Delirium was independently associated with in-hospital death in adults aged 50 years and older with COVID-19. Despite the difficulties for patient care during the pandemic, clinicians should routinely monitor delirium when assessing severity and prognosis of COVID-19 patients.

Publication Type

Journal article.

<573>

Accession Number

20203557502

Author

Rajarshi Bhattacharya; Gupta, A. M.; Suranjita Mitra; Sukhendu Mandal; Biswas, S. R.

Title

A natural food preservative peptide nisin can interact with the SARS-CoV-2 spike protein receptor human ACE2.

Source

Virology; 2021. 552:107-111. 28 ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Nisin, a food-grade antimicrobial peptide produced by lactic acid bacteria has been examined for its probable interaction with the human ACE2 (hACE2) receptor, the site where spike protein of SARS-CoV-2 binds. Among the eight nisin variants examined, nisin H, nisin Z, nisin U and nisin A showed a significant binding affinity towards hACE2, higher than that of the RBD (receptor binding domain) of the SARS-CoV-2 spike protein. The molecular interaction of nisin with hACE2 was investigated by homology modeling and docking studies. Further, binding efficiency of the most potent nisin H was evaluated through the interaction of hACE2:nisin H complex with RBD (receptor-binding domain) of SARS-CoV-2 and that of hACE2:RBD complex with nisin H. Here, nisin H acted as a potential competitor of RBD to access the hACE2 receptor. The study unravels for the first time that a globally used food preservative, nisin has the potential to bind to hACE2.

Publication Type

Journal article.

<574>

Accession Number

  20203557297

Author

  Mostafa, M. K.; Gamal, G.; Wafiq, A.

Title

  The impact of COVID 19 on air pollution levels and other environmental indicators - a case study of Egypt.

Source

  Journal of Environmental Management; 2021. 277. many ref.

Publisher

  Elsevier

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  The outbreak of coronavirus disease (COVID-19) not only affected health and economics, but also its effect extended to include other aspects, such as the environment. Using Egypt as a case study, this paper presents the impact of COVID-19 pandemic on air pollution levels by studying nitrogen dioxide (NO_2), ozone (O_3), particulate matter represented in absorbing aerosol index (AAI), carbon monoxide (CO), and greenhouse gas (GHG) emissions. The paper also highlights the impact of COVID-19 pandemic on other environmental indicators including environmental noise, medical and municipal solid wastes. The paper presents the Egyptian COVID-19 story from its different angles including the development of confirmed COVID-19 cases, containment measures from the government, the impact on the country's economy and the national energy consumption so as to effectively evaluate the effect on both the air pollution levels and the other studied environmental indicators. For the other environmental indicators, a strong link was observed between COVID-19 lockdown and the reduction in environmental noise, beaches, surface and groundwater pollution. For environmental noise, this has been confirmed by officially governmental announcements which reported that the level of environmental noise in Egypt was reduced by about 75% during the lockdown period. On the other hand, there are some negative effects, including an increase in medical solid waste (from 70 to 300 ton/day), municipal solid waste, as well as a less efficient solid waste recycling process. For air pollution levels, the data were obtained from National Aeronautics and Space Administration (NASA) and European Space Agency satellite data sets. The data for the lockdown period in 2020 have been extracted and compared to the corresponding months in the selected baseline period (2015-2019) to identify the effect that the lockdown period had on the air pollution levels in Egypt with focus on Cairo and Alexandria governorates. It was found that the AAI decreased by about 30%, the NO_2 decreased by 15 and 33% over Cairo and Alexandria governorates, respectively, and that the CO decreased

by about 5% over both governorates. In addition, the GHG emissions in Egypt were reduced by at least 4% during the pandemic. In contrast, ozone levels increased by about 2% over Cairo and Alexandria governorates. It can be concluded that the implemented containment measures during COVID-19 pandemic had resulted in both positive and negative environmental impacts. The positive environmental impacts are not sustainable and deterioration on them is expected to occur after the lockdown as it was before the pandemic. Therefore, stricter laws must be enacted to protect the environment in Egypt.

Publication Type

  Journal article.

<575>

Accession Number

  20203557019

Author

  Forster, P. M.; Forster, H. I.; Evans, M. J.; Gidden, M. J.; Jones, C. D.; Keller, C. A.; Lamboll, R. D.; Quere, C. le; Rogelj, J.; Rosen, D.; Schleussner, C. F.; Richardson, T. B.; Smith, C. J.; Turnock, S. T.

Title

  Current and future global climate impacts resulting from COVID-19.

Source

  Nature Climate Change; 2020. 10(10):913-919. 46 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  The global response to the COVID-19 pandemic has led to a sudden reduction of both GHG emissions and air pollutants. Here, using national mobility data, we estimate global emission reductions for ten species during the period February to June 2020. We estimate that global NOx emissions declined by as much as 30% in April, contributing a short-term cooling since the start of the year. This cooling trend is offset by ~20% reduction in global SO_2 emissions that weakens the aerosol cooling effect, causing short-term warming. As a result, we estimate that the direct effect of the pandemic-driven response will be negligible, with a cooling of around 0.01 +or- 0.005 degrees C by 2030 compared to a baseline scenario that follows

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569

current national policies. In contrast, with an economic recovery tilted towards green stimulus and reductions in fossil fuel investments, it is possible to avoid future warming of 0.3 degrees C by 2050.

Publication Type

Journal article.

<576>

Accession Number

20203557002

Author

Quere, C. le; Jackson, R. B.; Jones, M. W.; Smith, A. J. P.; Abernethy, S.; Andrew, R. M.; De-Gol, A. J.; Willis, D. R.; Shan YuLi; Canadell, J. G.; Friedlingstein, P.; Creutzig, F.; Peters, G. P.

Title

Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement.

Source

Nature Climate Change; 2020. 10(7):647-653. 48 ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Government policies during the COVID-19 pandemic have drastically altered patterns of energy demand around the world. Many international borders were closed and populations were confined to their homes, which reduced transport and changed consumption patterns. Here we compile government policies and activity data to estimate the decrease in CO2 emissions during forced confinements. Daily global CO2 emissions decreased by -17% (-11 to -25% for +or-1X) by early April 2020 compared with the mean 2019 levels, just under half from changes in surface transport. At their peak, emissions in individual countries decreased by -26% on average. The impact on 2020 annual emissions depends on the duration of the confinement, with a low estimate of -4% (-2 to -7%) if prepandemic conditions return by mid-June, and a high estimate of -7% (-3 to -13%) if some restrictions remain worldwide until the end of 2020. Government actions and economic incentives postcrisis will likely influence the global CO2 emissions path for decades.

Publication Type

Journal article.

<577>

Accession Number

  20203556966

Author

  Deepak Chawla; Dinesh Chirla; Samir Dalwai; Deorari, A. K.; Atul Ganatra; Alpesh Gandhi; Kabra, N. S.; Praveen Kumar; Pratima Mittal; Parekh, B. J.; Sankar, M. J.; Tanu Singhal; Sindhu Sivanandan; Parikshit Tank

Title

  Perinatal-neonatal management of COVID-19 infection - guidelines of the Federation of Obstetric and Gynaecological Societies of India (FOGSI), National Neonatology Forum of India (NNF), and Indian Academy of Pediatrics (IAP).

Source

Publisher

  Springer (India) Private Limited

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  Justification: During the current rapidly evolving pandemic of COVID-19 infection, pregnant women with suspected or confirmed COVID-19 and their newborn infants form a special vulnerable group that needs immediate attention. Unlike other elective medical and surgical problems for which care can be deferred during the pandemic, pregnancies and childbirths continue. Perinatal period poses unique challenges and care of the mother-baby dyads requires special resources for prevention of transmission, diagnosis of infection and providing clinical care during labor, resuscitation and postnatal period. Process: The GRADE approach recommended by the World Health Organization was used to develop the guideline. A Guideline Development Group (GDG) comprising of obstetricians, neonatologists and pediatricians was constituted. The GDG drafted a list of questions which are likely to be faced by clinicians involved in obstetric and neonatal care. An e-survey was carried out amongst a wider group of clinicians to invite more questions and prioritize. Literature search was carried out in PubMed and websites of relevant international and national professional organizations. Existing guidelines, systematic reviews, clinical trials, narrative reviews and other descriptive reports were reviewed. For the practice questions, the evidence was extracted into evidence profiles. The context, resources required, values and preferences were considered for developing the recommendations. Objectives: To provide recommendations for prevention of transmission, diagnosis

of infection and providing clinical care during labor, resuscitation and postnatal period. Recommendations: A set of twenty recommendations are provided under the following broad headings: (1) pregnant women with travel history, clinical suspicion or confirmed COVID-19 infection; (2) neonatal care; (3) prevention and infection control; (4) diagnosis; (5) general questions.

Publication Type

Journal article.

<578>

Accession Number

20203556914

Author

Namita Ravikumar; Karthi Nallasamy; Arun Bansal; Angurana, S. K.; Basavaraja, G. V.; Sundaram, M.; Rakesh Lodha; Dhiren Gupta; Muralidharan Jayashree

Title

Novel coronavirus 2019 (2019-nCoV) infection: part I - preparedness and management in the pediatric intensive care unit in resource-limited settings.

Source

Indian Pediatrics; 2020. 57(4):324-334. 48 ref.

Publisher

Springer (India) Private Limited

Location of Publisher

New Delhi

Country of Publication

India

Abstract

First reported in China, the 2019 novel coronavirus has been spreading across the globe. Till 26 March, 2020, 416,686 cases have been diagnosed and 18,589 have died the world over. The coronavirus disease mainly starts with a respiratory illness and about 5-16% require intensive care management for acute respiratory distress syndrome (ARDS) and multi-organ dysfunction. Children account for about 1-2% of the total cases, and 6% of these fall under severe or critical category requiring pediatric intensive care unit (PICU) care. Diagnosis involves a combination of clinical and epidemiological features with laboratory confirmation. Preparedness strategies for managing this pandemic are the need of the hour, and involve setting up cohort ICUs with isolation rooms. Re-allocation of resources in managing this crisis involves careful planning, halting elective surgeries and training of healthcare workers. Strict adherence to infection

control like personal protective equipment and disinfection is the key to contain the disease transmission. Although many therapies have been tried in various regions, there is a lack of strong evidence to recommend anti-virals or immunomodulatory drugs.

Publication Type

  Journal article.

<579>

Accession Number

  20203556901

Author

  Vidushi Mahajan; Tanvi Singh; Chandrika Azad

Title

  Using telemedicine during the COVID-19 pandemic.

Source

  Indian Pediatrics; 2020. 57(7):658-661. 9 ref.

Publisher

  Springer (India) Private Limited

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  Telemedicine is the delivery of health care services using information or communication technology. In the current pandemic scenario, telemedicine can supplement health-care delivery in the absence of in-person visit. The Government of India has recently launched the e-sanjeevani OPD, a National teleconsultation service, which has been adopted by many state governments as mandatory for health-care providers. With Indian Medical Association issuing an advisory against the use of telemedicine except in few situations, a lot of confusion exists in the mind of a pediatrician. Despite the uncertain situation, we have to remember that other diseases shall not stall in the face of a pandemic. Since telemedicine is an evolving subject, training of medical professionals, clear guidelines and good quality internet service systems will go a long way in increasing the acceptability of telemedicine in the Indian population. We herein discuss issues related to using telemedicine during the SARS-CoV-2 pandemic.

Publication Type

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573

Journal article.

<580>

Accession Number

 20203556704

Author

 Heidary, F.; Gharebaghi, R.

Title

 Ivermectin: a systematic review from antiviral effects to COVID-19 complementary regimen.

Source

 Journal of Antibiotics; 2020. 73(9):593-602. 45 ref.

Publisher

 Nature Publishing Group

Location of Publisher

 London

Country of Publication

 UK

Abstract

  Ivermectin proposes many potentials effects to treat a range of diseases, with its antimicrobial, antiviral, and anti-cancer properties as a wonder drug. It is highly effective against many microorganisms including some viruses. In this comprehensive systematic review, antiviral effects of ivermectin are summarized including in vitro and in vivo studies over the past 50 years. Several studies reported antiviral effects of ivermectin on RNA viruses such as Zika, dengue, yellow fever, West Nile, Hendra, Newcastle, Venezuelan equine encephalitis, chikungunya, Semliki Forest, Sindbis, Avian influenza A, Porcine Reproductive and Respiratory Syndrome, Human immunodeficiency virus type 1, and severe acute respiratory syndrome coronavirus 2. Furthermore, there are some studies showing antiviral effects of ivermectin against DNA viruses such as Equine herpes type 1, BK polyomavirus, pseudorabies, porcine circovirus 2, and bovine herpesvirus 1. Ivermectin plays a role in several biological mechanisms, therefore it could serve as a potential candidate in the treatment of a wide range of viruses including COVID-19 as well as other types of positive-sense single-stranded RNA viruses. In vivo studies of animal models revealed a broad range of antiviral effects of ivermectin, however, clinical trials are necessary to appraise the potential efficacy of ivermectin in clinical setting.

Publication Type

 Journal article.

<581>

Accession Number

20203556678

Author

Sachdeva, R. C.; Suksham Jain; Suchandra Mukherjee; Jai Singh

Title

Ensuring exclusive human milk diet for all babies in COVID-19 times.

Source

Indian Pediatrics; 2020. 57(8):730-733. 23 ref.

Publisher

Springer (India) Private Limited

Location of Publisher

New Delhi

Country of Publication

India

Abstract

The coronavirus disease (COVID-19) pandemic has ramifications for the delivery of newborn nutrition and care services. World Health Organization recommends continuation of breastfeeding in these difficult times, with due precautions. If direct breastfeeding is not possible, milk expression should be explored. Pasteurized donor human milk from milk banks may be fed if mother's own milk is not available. To universalize access to human milk, the Indian government has proposed the establishment of comprehensive lactation management centers/milk banks, lactation management units, and lactation support units at all levels of the public health system. Due to COVID-19, these centers are encountering additional challenges cutting across interventions of rooming in, breastfeeding, milk expression, and provision of donor milk and kangaroo mother care. We discuss issues faced and alleviation measures taken by these centres in relation to provision of an exclusive human milk diet for infants during the pandemic.

Publication Type

Journal article.

<582>

Accession Number

20203556660

Author

Al-Hayek, A. A.; Robert, A. A.; Matar, A. B.; Algarni, A.; Alkubedan, H.; Alharbi, T.; Al-Amro, A.; Alrashidi, S. A.; Al-Dawish, M.

Title

Risk factors for hospital admission among COVID-19 patients with diabetes. a study from Saudi Arabia.

Source

Saudi Medical Journal; 2020. 41(10):1090-1097. 31 ref.

Publisher

Prince Sultan Military Medical City

Location of Publisher

Riyadh

Country of Publication

Saudi Arabia

Abstract

Objectives: To elucidate the risk factors for hospital admission among COVID-19 patients with type 2 diabetes mellitus (T2DM). Methods: This retrospective study was conducted at the Prince Sultan Military Medical City, Riyadh, Saudi Arabia between May 2020 and July 2020. Out of 7,260 COVID-19 patients, 920 were identified as T2DM. After the exclusion process, 806 patients with T2DM were included in this analysis. Patients' data were extracted from electronic medical records. A logistic regression model was performed to estimate the risk factors of hospital admission. Results: Of the total of 806 COVID-19 patients with T2DM, 48% were admitted in the hospital, 52% were placed under home isolation. Older age between 70-79 years (OR [odd ratio] 2.56; p=0.017), 80 years (OR 6.48; p=0.001) were significantly more likely to be hospitalized compared to <40 years. Similarly, patients with higher HbA1c level of 9% compared to <7%; (OR 1.58; p=0.047); patients with comorbidities such as, hypertension (OR 1.43; p=0.048), cardiovascular disease (OR 1.56; p=0.033), cerebrovascular disease (OR 2.38; p=0.016), chronic pulmonary disease (OR 1.51; p=0.018), malignancy (OR 2.45; p=0.025), chronic kidney disease (CKD) IIIa, IIIb, IV (OR 2.37; p=0.008), CKD V (OR 5.07; p=0.007) were significantly more likely to be hospitalized. Likewise, insulin-treated (OR 1.46; p=0.03) were more likely to require hospital admission compared to non-insulin treated patients. Conclusion: Among COVID-19 patients with diabetes, higher age, high HbA1c level, and presence of other comorbidities were found to be significant risk factors for the hospital admission.

Publication Type

Journal article.

<583>

Accession Number

  20203556632

Author

  Abohamr, S. I.; Abazid, R. M.; Aldossari, M. A.; Amer, H. A.; Badhawi, O. S.; Aljunaidi, O. M.; Alzarzour, S. H.; Saadeddin, H. M.; Bhat, F. A.; Elsheikh, E.

Title

  Clinical characteristics and in-hospital mortality of COVID-19 adult patients in Saudi Arabia.

Source

  Saudi Medical Journal; 2020. 41(11):1217-1226. 37 ref.

Publisher

  Prince Sultan Military Medical City

Location of Publisher

  Riyadh

Country of Publication

  Saudi Arabia

Abstract

  Objectives: To provide a detailed study of demographic, baseline comorbidities, clinical features, and outcome for Coronavirus disease 2019 (COVID-19) patients. Methods: A record-based case-series study conducted from March 23 to June 15, 2020 in King Saud Medical City, Riyadh, Saudi Arabia. Demographic data, clinical presentation, laboratory investigations, complications, and in-hospital outcome of COVID-19 patients collected with analysis of the clinical characteristics for survivors and deceased. Results: A total of 768 patients were included. The mean age was 46.36+or-13.7 years and 76.7% were men. Approximately 96.3% reported more than one comorbidity; diabetes mellitus was the most frequent (46.4%). Fever (84.5%), cough (82.3%), and shortness of breath (79.8%) were the main presenting symptoms. During the follow-up, pneumonia reported in 68.6%, acute respiratory distress syndrome in 32.7%, septic shock in 20.7%, respiratory failure in 20.3%, and acute kidney injury in 19.3%. Approximately 45.8% of enrolled patients required intensive care unit admission. Lung disease (odd ratio [OR]=3.862 with 95% confident interval) [CI] (2.455-6.074), obesity (OR=3.732, CI=2.511-5.546), smoking (OR=2.991, CI=2.072-4.317), chronic kidney disease (OR=2.296. CI=1.497-3.521), and diabetes mellitus (OR=2.291, CI=1.714-3.063) are predictors of ICU admission. Fatality ratio was 4.27%; therefore, men were more prevalent in dead group. Conclusion: Coronavirus disease 2019 places a huge burden on healthcare facilities, particularly in patients with comorbidity. Coronavirus disease 2019 patients who are obese and smokers with history of diabetes mellitus have a high risk of death.

Publication Type

  Journal article.

<584>

Accession Number

  20203556402

Author

  Greenville, J.; McGilvray, H.; Cao Ly; Fell, J.

Title

  Impacts of COVID-19 on Australian agriculture, forestry and fisheries trade.

Source

  ABARES Research Report; 2020. (20.11):27 pp. 18 ref.

Publisher

  Australian Bureau of Agricultural and Resource Economics and Sciences

Location of Publisher

  Canberra

Country of Publication

  Australia

Abstract

  As the COVID-19 pandemic spreads, so will the impacts on Australia's agriculture, forestry and fisheries sectors. Initially the impact was due to slowing demand in China, however the subsequent global spread of the virus is now impacting on global markets, making the short-term outlook for Australian agriculture increasingly uncertain. The International Monetary Fund (IMF) is currently forecasting a 3% contraction in global economic activity in 2020 -worse than the global financial crisis (IMF, 2020). However, because agricultural exports principally relate to food, the key impact on global agricultural markets is likely to be softer prices rather than significantly reduced consumption. This is because food is always an essential commodity, even during a crisis. Initially, Australian agriculture's exposure to China was a risk. The most exposed products were those typically associated with restaurants and cafes, and, for the forestry sector, those feeding into manufacturing processes. China's success in controlling the spread of the virus has allowed it to loosen restrictions and put its economy on a path to recovery. Provided the recovery is sustained, the negative impacts on Australia's trade with China may be limited. However, with the virus now spreading well beyond China, second and third waves of impacts on Australia's agricultural, forestry and fisheries sectors are likely. In the immediate future supply chain and logistics disruptions are expected to be the most significant risk to the three sectors and hence to producer incomes. Those disruptions may impact on the supply of imported inputs, and the performance of export supply chains. Although the risk is significant, early indications are that many issues are being resolved - including with support of the Australian Government - such that supply chains within Australia, and to a number of major markets, are still functioning. For those sectors that rely on manufacturing in other countries (for example, forestry and wool) the potential for further disruption to production and logistics outside Australia could constrain demand for Australian products. Domestic measures to limit the spread of COVID-19 could affect labour availability in some industries or disrupt their ability to export due to impacts on logistics networks.

Horticultural and intensive production enterprises are particularly concerned about access to migrant labour needed to get products from the farm to consumers. The Australian Government has taken steps to reduce these risks through recent changes to visa arrangements for seasonal workers. Despite the pandemic, it is the recent difficult seasonal conditions that will continue to dominate industry fortunes over the short term. The biggest impact on the agricultural sector over the past three years has been and remains the drought conditions that have affected national production. And while recent improvements in seasonal conditions will ease pressures on primary producers, the impact of this summer's bushfires and COVID-19 will likely compound those of the drought in the short term. There is considerable uncertainty in the outlook for the agricultural, forestry and fisheries sectors with the spread of COVID-19. Key aspects that will drive the economic impacts from the pandemic relate to the length of time over which it continues and the measures put in place by governments around the world to limit its spread. However, the underlying medium-term prospects for the sector remain strong.

Publication Type

Bulletin.

<585>

Accession Number

20203555506

Author

Buder, F.; Hitzenbichler, F.; Ehrenstein, B.; Salzberger, B.

Title

The outbreak of COVID-19 in China. [German]

Source

Internist (Berlin); 2020. 61(8):776-781. 17 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

The transmission dynamics of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Wuhan and Hubei Province differ considerably from those in the rest of China. In Hubei province SARS-CoV-2 led to a dramatic outbreak. Intensive control measures (travel restrictions, isolation of cases, quarantine of

contacts and others) led to the control of the outbreak. Despite travel restrictions SARS-CoV-2 was detected in other provinces in the following weeks. Consistent and intensive identification and isolation of infected persons ("containment") was able to prevent an outbreak outside Hubei province, providing an example for the control of SARS-CoV-2.

Publication Type

Journal article.

<586>

Accession Number

20203555446

Author

Asadi-Pooya, A. A.; Farazdaghi, M.; Bazrafshan, M.

Title

Impacts of the COVID-19 pandemic on Iranian patients with epilepsy.

Source

Acta Neurologica Scandinavica; 2020. 142(4):392-395. 9 ref.

Publisher

Wiley

Location of Publisher

Copenhagen

Country of Publication

Denmark

Abstract

Objective: To investigate the effects of COVID-19 pandemic on patients' perceptions of hardship in obtaining their drugs and if this pandemic and the social restrictions in response to that has resulted in any changes in their seizure control status. We also investigated factors potentially associated with the perceptions of difficulty in obtaining their drugs (eg, polytherapy vs monotherapy, taking imported drugs, and seizure status worsening). Methods: We surveyed a random sample of patients with epilepsy, who were registered in our database at Shiraz Epilepsy Center, Iran, on their perceptions on two issues: (a) What has been your experience on obtaining your antiseizure medications in the past 4 weeks (compared to before)? (b) Have you experienced any changes in your seizure control status in the past 4 weeks? Results: We included 100 patients (53 male and 47 female patients). In response to the question "Have you had any difficulties in the past 4 weeks to obtain your drugs?", 31 people (31%) expressed hardship obtaining their drugs. In response to the question "How has been your seizure control status compared with before?", six

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580

people (6%) expressed worsening of their seizure control status in the past 4 weeks. None of the patients reported symptoms of coronavirus infection. Conclusion: About one-third of patients with epilepsy expressed significant hardship obtaining their drugs after the intensification of the COVID-19 outbreak in Iran. The current COVID-19 pandemic could be considered as a major shock to a nation that has already been under significant pressure (ie, Iran).

Publication Type

  Journal article.

<587>

Accession Number

  20203554913

Author

  Marchitelli, S.; Mazza, C.; Lenzi, A.; Ricci, E.; Gnessi, L.; Roma, P.

Title

  Weight gain in a sample of patients affected by overweight/obesity with and without a psychiatric diagnosis during the COVID-19 lockdown.

Source

  Nutrients; 2020. 12(11). 43 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The present study aimed at identifying psychological and psychosocial variables that might predict weight gain during the COVID-19 lockdown in patients affected by overweight/obesity with and without a psychiatric diagnosis. An online survey was administered between 25 April and 10 May 2020, to investigate participants' changes in dietary habits during the lockdown period. 110 participants were recruited and allocated to two groups, 63 patients had no psychiatric diagnosis; there were 47 patients with psychiatric diagnosis. ANOVA analyses compared the groups with respect to psychological distress levels, risk perception, social support, emotion regulation, and eating behaviors. For each group, a binary logistic regression analysis was conducted, including the factors that were found to significantly differ between groups. Weight gain during lockdown was reported by 31 of the participants affected by

overweight/obesity without a psychiatric diagnosis and by 31 patients with a psychiatric diagnosis. Weight gain predictors were stress and low depression for patients without a psychiatric diagnosis and binge eating behaviors for patients with a psychiatric diagnosis. Of patients without a psychiatric diagnosis, 60% reported much more frequent night eating episodes. The risk of night eating syndrome in persons affected by overweight/obesity with no psychiatric diagnosis should be further investigated to inform the development of tailored medical, psychological, and psychosocial interventions.

Publication Type

Journal article.

<588>

Accession Number

20203554900

Author

Malaguarnera, L.

Title

Vitamin D3 as potential treatment adjuncts for COVID-19.

Source

Nutrients; 2020. 12(11). 128 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Severe acute respiratory syndrome coronavirus type (SARS-CoV2, also known as COVID-19), which is the latest pandemic infectious disease, constitutes a serious risk to human health. SARS-CoV2 infection causes immune activation and systemic hyperinflammation which can lead to respiratory distress syndrome (ARDS). ARDS victims are characterized by a significant increase in IL-6 and IL-1. Macrophage activation, associated with the "cytokine storm", promotes the dysregulation of the innate immunity. So far, without vaccines or specific therapy, all efforts to design drugs or clinical trials are worthwhile. Vitamin D and its receptor vitamin D receptor (VDR) exert a critical role in infections due to their remarkable impact on both innate and adaptive immune responses and on the suppression of the inflammatory process. The protective properties of vitamin D supplementation have been supported by numerous observational

studies and by meta-analysis of clinical trials for prevention of viral acute respiratory infection. In this review, we compare the mechanisms of the host immune response to SARS-CoV2 infection and the immunomodulatory actions that vitamin D exerts in order to consider the preventive effect of vitamin D supplementation on SARS-CoV2 viral infection.

Publication Type

  Journal article.

<589>

Accession Number

  20203554889

Author

  Didinger, C.; Thompson, H.

Title

  Motivating pulse-centric eating patterns to benefit human and environmental well-being.

Source

  Nutrients; 2020. 12(11). 63 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Pulses (e.g., lentil, common bean, chickpea, and dry pea) are linked to a myriad of positive human and environmental health impacts, making them an ideal food for wise and conscientious global citizens. In addition, pulses are affordable and shelf-stable. The combination of these factors, an elevated consumer interest in plant-based diets, and the COVID-19 pandemic resulted in increased purchasing of pulses and even empty grocery store shelves. Although pulses have many associated benefits, some consumers are hesitant to regularly eat pulses, claiming concerns of abdominal discomfort or a lack of knowledge on how to best prepare pulses. To capitalize on increased consumer interest and purchasing of pulses, now is the time for outreach efforts that address these concerns and the positive outcomes associated with pulses, thereby promoting public and environmental health. Consumers must actively decide to add pulses to their grocery lists and incorporate them into their regular eating patterns. Motivation to adopt new eating habits is essential because knowledge alone does not result in behavior change. Thus, to mitigate perceived

barriers and drive consumption, we suggest application of the Information-Motivation-Behavioral Skills Model and emphasis of three main benefits of pulses as motivators: (1) culinary versatility, (2) sustainability, and (3) healthfulness.

Publication Type

  Journal article.

<590>

Accession Number

  20203554861

Author

  Zarah, A. B.; Enriquez-Marulanda, J.; Andrade, J. M.

Title

  Relationship between dietary habits, food attitudes and food security status among adults living within the United States three months post-mandated quarantine: a cross-sectional study.

Source

  Nutrients; 2020. 12(11). 47 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  COVID-19 has disrupted the lives of many and may have influenced dietary habits through factors such as food security status and attitudes. The purpose of this study was to identify dietary habits and their associations with food insecurity and attitudes among adults living in the United States within three months post-mandated quarantine. An online cross-sectional study was conducted from April to June 2020. Participants (n=3133) responded to a 71-item questionnaire regarding demographics (n=7), health information (n=5), lifestyle habits (n=8), dietary habits (n=37), food attitudes (n=8), and food security status (n=6). Frequency counts and percentages were tabulated, and multivariate linear regression was conducted to examine associations using STATA v14 at a statistical significance level of $p < 0.05$. Results showed that most participants indicated no change in dietary habits (43.6-87.4%), yet participants reported increased consumption of sweets (43.8%) and salty snacks (37.4%). A significant positive association for food attitude scores (1.59, 95% CI 1.48 to 1.70; $p < 0.001$) and food security scores (1.19, 95% CI 0.93 to 1.45; $p < 0.001$)

on total dietary habit scores was found. Future extensive population studies are recommended to help public health authorities frame actions to alleviate the impact that mandated quarantine has on dietary habits.

Publication Type

  Journal article.

<591>

Accession Number

  20203554860

Author

  Monzani, A.; Lionetti, E.; Felici, E.; Fransos, L.; Azzolina, D.; Rabbone, I.; Catassi, C.

Title

  Adherence to the gluten-free diet during the lockdown for COVID-19 pandemic: a web-based survey of Italian subjects with celiac disease.

Source

  Nutrients; 2020. 12(11). 16 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  We aimed to assess the perceived impact of the lockdown, imposed to control the spreading of COVID-19, on the adherence of Italian celiac disease (CD) subjects to the gluten-free diet by a web-based survey. A total of 1983 responses were analyzed, 1614 (81.4%) by CD adults and 369 (18.6%) by parents/caregivers of CD children/adolescents. The compliance with the GFD was unchanged for 69% of the adults and 70% of the children, and improved for 29% of both. The factors increasing the probability to report stricter compliance were the presence of CD symptoms in the last year before the lockdown (odds ratio (OR) 1.98, 95% confidence interval (CI) 1.46-2.26), a partial usual adherence to gluten-free diet (GFD) (OR 1.91, 95% CI 1.2-3.06), and having tried recipes with naturally gluten-free ingredients more than usual (OR 1.58, 95% CI 1.28-1.96) for adults; the presence of CD symptoms in the last year (OR 2.05, 95% CI 1.21-3.47), still positive CD antibodies (OR 1.89, 95% CI 1.14-3.13), and other family members with CD (OR 2.24, 95% CI 1.3-3.85) for children/adolescents. Therefore, the lockdown led to a reported improved adherence to the GFD in

one-third of the respondents, in particular in those with previous worse disease control, offering the opportunity to avoid sources of contamination/transgression and increase the use of naturally gluten-free products.

Publication Type

Journal article.

<592>

Accession Number

20203554843

Author

Lopez-Moreno, M.; Iglesias Lopez, M. T.; Miguel, M.; Garces-Rimon, M.

Title

Physical and psychological effects related to food habits and lifestyle changes derived from COVID-19 home confinement in the Spanish population.

Source

Nutrients; 2020. 12(11). 61 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

As a consequence of COVID-19, millions of households have suffered mobility restrictions and changes in their lifestyle over several months. The aim of this study is to evaluate the effects of COVID-19 home confinement on the food habits, lifestyle and emotional balance of the Spanish population. This cross-sectional study used data collected via an anonymous online questionnaire during the month before lockdown finished in Spain, with a total of 675 participants. 38.8% of the respondents experienced weight gain while 31.1% lost weight during confinement. The increase in body weight was positively correlated with age ($Rs = 0.14$, $p < 0.05$) and BMI ($Rs = 0.20$, $p < 0.05$). We also identified that 39.7% reported poorer quality sleep, positively correlated with BMI ($Rs = -0.18$, $p < 0.05$) and with age ($Rs = -0.21$, $p < 0.05$). 44.7% of the participants had not performed physical exercise during confinement with differences by sex ($p < 0.05$), by age ($p < 0.05$), by BMI ($p < 0.05$) and by sleep quality ($p < 0.05$). According to an emotional-eater

questionnaire, 21.8% and 11% were classified as an emotional eater or a very emotional eater, respectively. We emphasize the importance of adopting a healthy lifestyle, as the COVID-19 pandemic is ongoing.

Publication Type

  Journal article.

<593>

Accession Number

  20203554785

Author

  Annweiler, G.; Corvaisier, M.; Gautier, J.; Dubee, V.; Legrand, E.; Sacco, G.; Annweiler, C.

Title

  Vitamin D supplementation associated to better survival in hospitalized frail elderly COVID-19 patients: the GERIA-COVID quasi-experimental study.

Source

  Nutrients; 2020. 12(11). 30 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Background. The objective of this quasi-experimental study was to determine whether bolus vitamin D supplementation taken either regularly over the preceding year or after the diagnosis of COVID-19 was effective in improving survival among hospitalized frail elderly COVID-19 patients. Methods. Seventy-seven patients consecutively hospitalized for COVID-19 in a geriatric unit were included. Intervention groups were participants regularly supplemented with vitamin D over the preceding year (Group 1), and those supplemented with vitamin D after COVID-19 diagnosis (Group 2). The comparator group involved participants having received no vitamin D supplements (Group 3). Outcomes were 14-day mortality and highest (worst) score on the ordinal scale for clinical improvement (OSCI) measured during COVID-19 acute phase. Potential confounders were age, gender, functional abilities, undernutrition, cancer, hypertension, cardiomyopathy, glycated hemoglobin, number of acute health issues at admission, hospital use of antibiotics, corticosteroids, and pharmacological treatments of respiratory disorders. Results. The three groups (n=77; mean $\pm$ SD, 88 $\pm$ 5 years; 49% women) were similar at baseline (except for woman

proportion, p=0.02), as were the treatments used for COVID-19. In Group 1 (n=29), 93.1% of COVID-19 participants survived at day 14, compared to 81.2% survivors in Group 2 (n=16) (p=0.33) and 68.7% survivors in Group 3 (n=32) (p=0.02). While considering Group 3 as reference (hazard ratio (HR)=1), the fully-adjusted HR for 14-day mortality was HR=0.07 (p=0.017) for Group 1 and HR=0.37 (p=0.28) for Group 2. Group 1 had longer survival time than Group 3 (log-rank p=0.015), although there was no difference between Groups 2 and 3 (log-rank p=0.32). Group 1, but not Group 2 (p=0.40), was associated with lower risk of OSCI score 5 compared to Group 3 (odds ratio=0.08, p=0.03). Conclusions. Regular bolus vitamin D supplementation was associated with less severe COVID-19 and better survival in frail elderly.

Publication Type

  Journal article.

<594>

Accession Number

  20203554730

Author

  Ismail, L. C.; Osaili, T. M.; Mohamad, M. N.; Al-Marzouqi, A.; Jarrar, A. H.; Jamous, D. O. A.; Magriplis, E.; Ali, H. I.; Al-Sabbah, H.; Hasan, H.; AlMarzooqi, L. M. R.; Stojanovska, L.; Hashim, M.; Obaid, R. R. S.; Saleh, S. T.; Al-Dhaheri, A. S.

Title

  Eating habits and lifestyle during COVID-19 lockdown in the United Arab Emirates: a cross-sectional study.

Source

  Nutrients; 2020. 12(11). 80 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The coronavirus disease is still spreading in the United Arab Emirates (UAE) with subsequent lockdowns and social distancing measures being enforced by the government. The purpose of this study was to assess the effect of the lockdown on eating habits and lifestyle behaviors among residents of the UAE. A cross-sectional study among adults in the UAE was conducted using an online questionnaire between April and May 2020. A total of 1012 subjects participated in the study. During the pandemic, 31% reported weight

gain and 72.2% had less than eight cups of water per day. Furthermore, the dietary habits of the participants were distanced from the Mediterranean diet principles and closer to "unhealthy" dietary patterns. Moreover, 38.5% did not engage in physical activity and 36.2% spent over five hours per day on screens for entertainment. A significantly higher percentage of participants reported physical exhaustion, emotional exhaustion, irritability, and tension "all the time" during the pandemic compared to before the pandemic (p < 0.001). Sleep disturbances were prevalent among 60.8% of the participants during the pandemic. Although lockdowns are an important safety measure to protect public health, results indicate that they might cause a variety of lifestyle changes, physical inactivity, and psychological problems among adults in the UAE.

Publication Type

  Journal article.

<595>

Accession Number

  20203554651

Author

  Cawood, A. L.; Walters, E. R.; Smith, T. R.; Sipaul, R. H.; Stratton, R. J.

Title

  A review of nutrition support guidelines for individuals with or recovering from COVID-19 in the community.

Source

  Nutrients; 2020. 12(11). 25 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  COVID-19 negatively impacts nutritional status and as such identification of nutritional risk and consideration of the need for nutrition support should be fundamental in this patient group. In recent months, clinical nutrition professional organisations across the world have published nutrition support recommendations for health care professionals. This review summarises key themes of those publications linked to nutrition support of adults with or recovering from COVID-19 outside of hospital. Using our search

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criteria, 15 publications were identified from electronic databases and websites of clinical nutrition professional organisations, worldwide up to 19th June 2020. The key themes across these publications included the importance in the community setting of: (i) screening for malnutrition, which can be achieved by remote consultation; (ii) care plans with appropriate nutrition support, which may include food based strategies, oral nutritional supplements and referral to a dietitian; (iii) continuity of nutritional care between settings including rapid communication at discharge of malnutrition risk and requirements for ongoing nutrition support. These themes, and indeed the importance of nutritional care, are fundamental and should be integrated into pathways for the rehabilitation of patients recovering from COVID-19.

Publication Type

  Journal article.

<596>

Accession Number

  20203554643

Author

  Caparros-Gonzalez, R. A.; Perez-Morente, M. A.; Hueso-Montoro, C.; Alvarez-Serrano, M. A.; Torre-Luque, A. de la

Title

  Congenital, intrapartum and postnatal maternal-fetal-neonatal SARS-CoV-2 infections: a narrative review.

Source

  Nutrients; 2020. 12(11). 72 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Background: There is inconclusive evidence regarding congenital, intrapartum, and postnatal maternal-fetal-neonatal SARS-CoV-2 infections during the COVID-19 pandemic. A narrative review was conducted with the aim of guiding clinicians on the management of pregnant women with respect to congenital, intrapartum, and postnatal maternal-fetal-neonatal SARS-CoV-2 infections and breastfeeding during the COVID-19 pandemic. Methods: Searches were conducted in Web of Science, PubMed, Scopus, Dialnet, CUIDEN, Scielo, and Virtual Health Library to identify observational, case series, case reports, and

randomized controlled trial studies assessing the transmission of SARS-CoV-2 from mother to baby and/or through breastfeeding during the COVID-19 pandemic. Results: A total of 49 studies was included in this review, comprising 329 pregnant women and 331 neonates (two pregnant women delivered twins). The studies were performed in China (n = 26), USA (n = 7), Italy (n = 3), Iran (n = 2), Switzerland (n = 1), Spain (n = 1), Turkey (n = 1), Australia (n = 1), India (n = 1), Germany (n = 1), France (n = 1), Canada (n = 1), Honduras (n = 1), Brazil (n = 1), and Peru (n = 1). Samples from amniotic fluid, umbilical cord blood, placenta, cervical secretion, and breastmilk were collected and analyzed. A total of 15 placental swabs gave positive results for SARS-CoV-2 ribonucleic acid (RNA) on the fetal side of the placenta. SARS-CoV-2 RNA was found in seven breastmilk samples. One umbilical cord sample was positive for SARS-CoV-2. One amniotic fluid sample tested positive for SARS-CoV-2. Conclusions: This study presents some evidence to support the potential of congenital, intrapartum, and postnatal maternal-fetal-neonatal SARS-CoV-2 infections during the COVID-19 pandemic. Mothers should follow recommendations including wearing a facemask and hand washing before and after breastfeeding.

Publication Type

  Journal article.

<597>

Accession Number

  20203554142

Author

  Qazi, S. H.; Ayesha Saleem; Pirzada, A. N.; Hamid, la R.; Dogar, S. A.; Das, J. K.

Title

  Challenges to delivering pediatric surgery services in the midst of COVID 19 crisis: experience from a tertiary care hospital of Pakistan.

Source

  Pediatric Surgery International; 2020. 36(11):1267-1273. 31 ref.

Publisher

  Springer-Verlag GmbH

Location of Publisher

  Berlin

Country of Publication

  Germany

Abstract

Covid-19 pandemic has significantly challenged the healthcare delivery across the world. Surgery departments across the country responded to this challenge by halting all non-emergency procedures. This delay in diagnosis and management of surgical disease could result in significant mortality and morbidity among the most vulnerable population-the children. In this manuscript, we discuss the measures adopted as well as the challenges faced by the pediatric surgery department at Aga Khan University Hospital, Karachi (AKUH), Pakistan, which is a private, not-for-profit entity and providing optimum surgical care to the patients. We also underscore the need for global strategies for tackling such crisis.

Publication Type

  Journal article.

<598>

Accession Number

  20203554030

Author

  Sousa, L. P.; Pinho, V.; Teixeira, M. M.

Title

  Harnessing inflammation resolving-based therapeutic agents to treat pulmonary viral infections: what can the future offer to COVID-19?

Source

  British Journal of Pharmacology; 2020. 177(17):3898-3904. 45 ref.

Publisher

  Wiley

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Inflammation is generally accepted as a component of the host defence system and a protective response in the context of infectious diseases. However, altered inflammatory responses can contribute to disease in infected individuals. Many endogenous mediators that drive the resolution of inflammation are now known. Overall, mediators of resolution tend to decrease inflammatory responses and provide normal or greater ability of the host to deal with infection. In the lung, it seems that pro-resolution molecules, or strategies that promote their increase, tend to suppress inflammation and lung injury and facilitate control of bacterial or viral burden. Here, we argue that the demonstrated anti-inflammatory, pro-resolving, anti-

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thrombogenic and anti-microbial effects of such endogenous mediators of resolution may be useful in the treatment of the late stages of the disease in patients with COVID-19.

Publication Type

Journal article.

<599>

Accession Number

20203553634

Author

Dijkstra, H. P.; Holtzhausen, L.; Beasley, I.; Alonso, J. M.; Geertsema, L.; Geertsema, C.; Nelis, S.; Ngai SengHuey [Ngai, S. H. A.]; Stankovic, I.; Targett, S.; Andersen, T. E.

Title

Remote assessment in sport and exercise medicine (SEM): a narrative review and teleSEM solutions for and beyond the COVID-19 pandemic.

Source

British Journal of Sports Medicine; 2020. 54(19):1162-1167. 57 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Background: The COVID-19 pandemic forces sport and exercise medicine (SEM) physicians to think differently about the clinical care of patients. Many rapidly implement eHealth and telemedicine solutions specific to SEM without guidance on how best to provide these services. Aim: The aim of this paper is to present some guiding principles on how to plan for and perform an SEM consultation remotely (teleSEM) based on a narrative review of the literature. A secondary aim is to develop a generic teleSEM injury template. Results: eHealth and telemedicine are essential solutions to effective remote patient care, also in SEM. This paper provides guidance for wise planning and delivery of teleSEM. It is crucial for SEM physicians, technology providers and organisations to codesign teleSEM services, ideally involving athletes, coaches and other clinicians involved in the clinical care of athletes, and to gradually implement these services with appropriate support and education. Conclusion: teleSEM provides solutions for remote athlete clinical care during and after the COVID-19 pandemic. We define two new terms-eSEM and teleSEM

and discuss guiding principles on how to plan for and perform SEM consultations remotely (teleSEM). We provide an example of a generic teleSEM injury assessment guide.

Publication Type

Journal article.

<600>

Accession Number

20203553514

Author

Nagraj, S. K.; Eachempati, P.; Paisi, M.; Nasser, M.; Sivaramakrishnan, G.; Verbeek, J. H.

Title

Interventions to reduce contaminated aerosols produced during dental procedures for preventing infectious diseases.

Source

Cochrane Database of Systematic Reviews; 2020. (10).

Publisher

Wiley

Location of Publisher

Chichester

Country of Publication

UK

Abstract

Background:Many dental procedures produce aerosols (droplets, droplet nuclei and splatter) that harbour various pathogenic micro-organisms and may pose a risk for the spread of infections between dentist and patient. The COVID-19 pandemic has led to greater concern about this risk. Objectives: To assess the effectiveness of methods used during dental treatment procedures to minimize aerosol production and reduce or neutralize contamination in aerosols. Search methods: Cochrane Oral Health's Information Specialist searched the following databases on 17 September 2020: Cochrane Oral Health's Trials Register, the Cochrane Central Register of Controlled Trials (CENTRAL) (in the Cochrane Library, 2020, Issue 8), MEDLINE Ovid (from 1946); Embase Ovid (from 1980); the WHO COVID-19 Global literature on coronavirus disease; the US National Institutes of Health Trials Registry (ClinicalTrials.gov); and the Cochrane COVID-19 Study Register. We placed no restrictions on the language or date of publication. Selection criteria: We included randomized controlled trials (RCTs) and controlled clinical trials (CCTs) on aerosol-generating procedures (AGPs) performed by dental healthcare providers that evaluated methods to reduce

contaminated aerosols in dental clinics (excluding preprocedural mouthrinses). The primary outcomes were incidence of infection in dental staff or patients, and reduction in volume and level of contaminated aerosols in the operative environment. The secondary outcomes were cost, accessibility and feasibility. Data collection and analysis: Two review authors screened search results, extracted data from the included studies, assessed the risk of bias in the studies, and judged the certainty of the available evidence. We used mean differences (MDs) and 95% confidence intervals (CIs) as the effect estimate for continuous outcomes, and random-effects meta-analysis to combine data. We assessed heterogeneity. Main results: We included 16 studies with 425 participants aged 5 to 69 years. Eight studies had high risk of bias; eight had unclear risk of bias. No studies measured infection. All studies measured bacterial contamination using the surrogate outcome of colony-forming units (CFU). Two studies measured contamination per volume of air sampled at different distances from the patient's mouth, and 14 studies sampled particles on agar plates at specific distances from the patient's mouth. The results presented below should be interpreted with caution as the evidence is very low certainty due to heterogeneity, risk of bias, small sample sizes and wide confidence intervals. Moreover, we do not know the 'minimal clinically important difference' in CFU. High-volume evacuator: Use of a high-volume evacuator (HVE) may reduce bacterial contamination in aerosols less than one foot (~30 cm) from a patient's mouth (MD -47.41, 95% CI -92.76 to -2.06; 3 split-mouth RCTs, 122 participants; very high heterogeneity I2 = 95%), but not at longer distances (MD -1.00, -2.56 to 0.56; 1 RCT, 80 participants). One split-mouth RCT (six participants) found that HVE may not be more effective than conventional dental suction (saliva ejector or low-volume evacuator) at 40 cm (MD CFU -2.30, 95% CI -5.32 to 0.72) or 150 cm (MD -2.20, 95% CI -14.01 to 9.61). Dental isolation combination system: One RCT (50 participants) found that there may be no difference in CFU between a combination system (Isolite) and a saliva ejector (low-volume evacuator) during AGPs (MD -0.31, 95% CI -0.82 to 0.20) or after AGPs (MD -0.35, -0.99 to 0.29). However, an 'n of 1' design study showed that the combination system may reduce CFU compared with rubber dam plus HVE (MD -125.20, 95% CI -174.02 to -76.38) or HVE (MD -109.30, 95% CI -153.01 to -65.59). Rubber dam: One split-mouth RCT (10 participants) receiving dental treatment, found that there may be a reduction in CFU with rubber dam at one-metre (MD -16.20, 95% CI -19.36 to -13.04) and two-metre distance (MD -11.70, 95% CI -15.82 to -7.58). One RCT of 47 dental students found use of rubber dam may make no difference in CFU at the forehead (MD 0.98, 95% CI -0.73 to 2.70) and occipital region of the operator (MD 0.77, 95% CI -0.46 to 2.00). One split-mouth RCT (21 participants) found that rubber dam plus HVE may reduce CFU more than cotton roll plus HVE on the patient's chest (MD -251.00, 95% CI -267.95 to -234.05) and dental unit light (MD -12.70, 95% CI -12.85 to -12.55). Air cleaning systems: One split-mouth CCT (two participants) used a local stand-alone air cleaning system (ACS), which may reduce aerosol contamination during cavity preparation (MD -66.70 CFU, 95% CI -120.15 to -13.25 per cubic metre) or ultrasonic scaling (MD -32.40, 95% CI -51.55 to -13.25). Another CCT (50 participants) found that laminar flow in the dental clinic combined with a HEPA filter may reduce contamination approximately 76 cm from the floor (MD -483.56 CFU, 95% CI -550.02 to -417.10 per cubic feet per minute per patient) and 20 cm to 30 cm from the patient's mouth (MD -319.14 CFU, 95% CI -385.60 to -252.68). Disinfectants - antimicrobial coolants: Two RCTs evaluated use of antimicrobial coolants during ultrasonic scaling. Compared with distilled water, coolant containing chlorhexidine (CHX), cinnamon extract coolant or povidone iodine may reduce CFU: CHX (MD -124.00, 95% CI -135.78 to -112.22; 20 participants), povidone iodine (MD -656.45, 95% CI -672.74 to -640.16; 40 participants), cinnamon (MD -644.55, 95% CI -668.70 to -620.40; 40 participants). CHX coolant may reduce CFU more than povidone iodine (MD -59.30, 95% CI -64.16 to -54.44; 20 participants), but not more than cinnamon extract (MD -11.90, 95% CI -35.88 to 12.08; 40 participants).

Publication Type

 Journal article.

<601>

Accession Number

  20203552546

Author

  Rizo-Patron, E.; Padilla, J.; Tantalean, J. A.

Title

  Pediatric hospital demand in the COVID-19 pandemic. [Spanish]

Source

  Acta Medica Peruana; 2020. 37(3):376-381. 13 ref.

Publisher

  Colegio Medico del Peru

Location of Publisher

  Lima

Country of Publication

  Peru

Abstract

  The COVID-19 pandemic in Peru is causing an unusual pressure in our sanitarian and critic care resources. As the pandemics have progressed in the population, an increasing of several cases and intensive care units (ICU) demand will be expected, because of that, the hospitals capacities would be exceeded in a short place. Despite the low severity of COVID-19 cases in children, we expect that the projected number of pediatric cases could overwhelm the available pediatric capacity. Under a 25% cumulative infection rate scenario, there would be approximately 891 critically ill children requiring ICU admission. We propose several strategies to handle the concerns about shortfalls in our ability to provide pediatric ventilation and critical care support during the epidemic in Peru.

Publication Type

  Journal article.

<602>

Accession Number

  20203552538

Author

Tenorio-Mucha, J.; Hurtado-Roca, Y.

Title

A review on obesity as a risk factor for mortality in COVID-19 disease. [Spanish]

Source

Acta Medica Peruana; 2020. 37(3):324-329. 42 ref.

Publisher

Colegio Medico del Peru

Location of Publisher

Lima

Country of Publication

Peru

Abstract

This review presents evidence available up to June 2020 dealing with the effects from obesity as a possible factor increasing mortality in patients diagnosed with COVID-19 infection. Quality for most of the studies was good according to the Newcastle Ottawa scale (7/9 or higher). Studies reported follow-up periods between February 6th up to May 17th, 2020. In patients with COVID-19, obesity was a risk factor for mortality. Obese persons should be treated as a highrisk population, and preventive measures against transmission of the aforementioned infection must be intensified, and specialized assistance must be given to confirmed COVID-19 cases.

Publication Type

Journal article.

<603>

Accession Number

20203552447

Author

Li JinPeng; Gao RongFen; Wu GaoSong; Wu XiaoLin; Liu ZeMing; Wang HongJing; Huang YiHui; Pan ZhenYu; Chen JinCao; Wu XiaoHui

Title

Clinical characteristics of emergency surgery patients infected with coronavirus disease 2019 (COVID-19) pneumonia in Wuhan, China.

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597

Source

Surgery; 2020. 168(3):398-403. 18 ref.

Publisher

Mosby Inc.

Location of Publisher

St. Louis

Country of Publication

USA

Abstract

Background: We aimed to investigate clinical symptoms and epidemiologic features of emergency surgery patients infected with the 2019 novel coronavirus disease (COVID-19). More than 5 million people worldwide have been diagnosed with COVID-19 since December 2019 to the time of this publication. Thousands of emergency operations have been carried out since December 2019. To date, however, no literature has focused on the clinical symptoms of emergency surgery patients with COVID-19 pneumonia. Methods: We conducted a retrospective cohort study of 164 emergency surgery patients with or without COVID-19 pneumonia in Zhongnan Hospital of Wuhan University in Wuhan, China, from January 1, 2020, to January 20, 2020. For this report, the final date of follow-up was February 5, 2020. The associated clinical, laboratory, epidemiologic, demographic, radiologic, and outcome data were collected and analyzed. Results: Of the 164 emergency surgery patients, the median age was 41 years (interquartile range, 29-89), and 136 (82.9%) were women. The associated main clinical symptom included fever (93 [56.7%]), dry cough (56 [34.2%]), fatigue (86 [52.4%]), nausea (78 [47.6%]), and dizziness (77 [47%]). Of 54 emergency surgery patients infected with COVID-19, the median age was 46 years (interquartile range: 25-89), and 45 (83.3%) were women. The pathologic clinical symptoms investigated included fever (54 [100%]), fatigue (48 [88.9%]), nausea (52 [96.3%]), dizziness (46 [85.2%]), and dry cough (44 [81.5%]). The lymphopenia (0.37 x 109/L [interquartile range: 0.23-0.65]) and increased C-reactive protein (24.7 x 109/L [interquartile range: 13.57-38]) were observed. The preoperative fever and postoperative fever in emergency surgery patients with or without COVID-19 pneumonia were analyzed in this study. Of 54 emergency surgery patients with COVID-19, 15 (27.8%) showed preoperative fever, 54 (100%) had postoperative fever. Of 110 emergency surgery patients without COVID-19, 5 (4.5%) had preoperative fever, 31 (28.2%) patients had postoperative fever. In emergency surgery patients with COVID-19, the fever lasted more than 7 days, markedly exceeded the length of time non-COVID-19 patients experienced fever (approximately 3 days). Furthermore, 43 health care workers were exposed to emergency surgery patients with COVID-19 pneumonia and were infected with COVID-19 pneumonia. Conclusion: In our study, the clinical symptoms of emergency surgery patients infected with COVID-19 displayed marked differences from those reporting common COVID-19 pneumonia. In addition, the health care workers were suspected to have been exposed to a great risk when caring for emergency surgery patients with COVID-19 pneumonia. Management guidelines of emergency surgery patients are described in in this report.

Publication Type

Journal article.

<604>

Accession Number

  20203552321

Author

  Deven Juneja; Savio, R. D.; Shrikanth Srinivasan; Pandit, R. A.; Suresh Ramasubban; Reddy, P. K.; Manoj Singh; Gopal, P. B. N.; Dhruva Chaudhry; Deepak Govil; Shubhal Dixit; Srinivas Samavedam

Title

  Basic critical care for management of COVID-19 patients: position paper of Indian society of critical care medicine, Part-I.

Source

  Indian Journal of Critical Care Medicine; 2020. 24(S5):S244-S253. 107 ref.

Publisher

  Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  With more than 23 million infections and more than 814,000 deaths worldwide, the coronavirus disease-2019 (COVID-19) pandemic is still far from over. Several classes of drugs including antivirals, antiretrovirals, anti-inflammatory, immunomodulatory, and antibiotics have been tried with varying levels of success. Still, there is lack of any specific therapy to deal with this infection. Although less than 30% of these patients require intensive care unit admission, morbidity and mortality in this subgroup of patients remain high. Hence, it becomes imperative to have general principles to guide intensivists managing these patients. However, as the literature emerges, these recommendations may change and hence, frequent updates may be required.

Publication Type

  Journal article.

<605>

Accession Number

  20203552320

Author

  Praveen, K. G.; Kulkarni, A. P.; Deepak Govil; Dixit, S. B.; Dhruva Chaudhry; Srinivas Samavedam; Zirpe, K. G.; Gopal, P. B. N.; Arindam Kar

Title

  Airway management and related procedures in critically ill COVID-19 patients: position statement of the Indian society of critical care medicine.

Source

  Indian Journal of Critical Care Medicine; 2020. 24(S5):S231-S243. 30 ref.

Publisher

  Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  The coronavirus disease (COVID-19) pandemic has affected nearly all nations globally. The highly contagious nature of the disease puts the healthcare workers at high risk of acquiring infection, especially while handling airway and performing aerosol-generating procedures. The Indian Society of Critical Care Medicine, through this position paper, aims to provide guidance for safe airway management to all healthcare workers dealing with airway in COVID-19 patients.

Publication Type

  Journal article.

<606>

Accession Number

  20203552149

Author

  Saha, M. M.; Das, S. K.; Sarkar, N. C.; Rahul Chaudhuri; Sagar Gaikowad; Sagar Shirsath

Title

  SARS-CoV-2/COVID-19 infection in pregnancy and its outcome in a rural tertiary care centre of West Bengal. (Special Issue: COVID-19: disease progression, impact & comorbidity.)

Source

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600

Indian Journal of Biochemistry & Biophysics; 2020. 57(6):694-700.

Publisher

National Institute of Science Communication and Information Resources, CSIR

Location of Publisher

New Delhi

Country of Publication

India

Abstract

SARS-CoV-2 infection in pregnancy and its adverse outcome on the mother as well on the fetus is emerging as an important concern, but knowledge about the prognosis is limited. In our prospective observational study total of 56 pregnant women admitted in the isolation ward of our institution were included. All women were presented with common symptoms like fever, tiredness, headache, sore throat, and cough. Three women diagnosed SARS-CoV-2/COVID-19 positive by Reverse Transcription Polymerase Chain Reaction (RTPCR) examination of the nasopharyngeal swab. All three neonates were tested negative for SARS-CoV-2 infection. The three mothers also recovered with routine care and returned home after 7 days with advice for a safe home for further 7 days. SARS-CoV-2 infection in pregnancy mostly appears in the later part of pregnancy and management is almost like the general population. There is no increased risk of severe disease during pregnancy. Neonates are mostly protected from disease transmission due to immune modulation during pregnancy.

Publication Type

Journal article.

<607>

Accession Number

20203551996

Author

Al-Barzin, R. M. G. T.; Raheem, S. G.; Khudhur, P. K.; Abdulkarimi, R.; Mohammadnejad, E.; Tabatabaee, A.

Title

Interleukin-6 role in the severity of COVID-19 and intensive care unit stay length.

Source

Cellular and Molecular Biology; 2020. 66(6):15-18.

Publisher

C.M.B. Association

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601

Location of Publisher

Sarreguemines

Country of Publication

France

Abstract

Evaluation of cytokine production in COVIID-19 disease, in which the cytokine storm is one of the most important pathological features in complicated cases, especially interleukin 6 as a pre-inflammatory cytokine that exacerbates the immune response, could help determine the pathophysiology of the disease. Examining the level of this cytokine along with other related factors can help to better understand the pathogenesis of this disease. In this cross-sectional study, 48 patients with COVID-19 whose disease was confirmed by swap testing were evaluated. The demographic information of the individuals, the symptoms of the disease, and the ward in which they were admitted were recorded. Blood samples were taken from patients to test for interleukin-6 levels by electrochemiluminescence immunoassay (ECLIA, Roche Diagnostics). Due to the lack of specific treatment protocols for patients and the use of supportive treatments based on meeting the nutritional needs for all patients, blood albumin levels and nutritional status of patients were also evaluated using Subjective Global Assessment (SGA) Form. Their calorie intake was assessed by calculating the number of calories received based on the type of nutrition and compared to the required amount calculated through the Harris-Benedict equation. 48 laboratory-confirmed 2019-nCoV infected patients were included in the study with the mean age of 46.4 +or- 8.3 years. 21 patients were admitted to the intensive care unit (ICU). There was no significant difference between the ICU admitted and patients admitted inward in terms of demographic characteristics, and history of previous diseases (p > 0.05). The average interleukin 6 (IL-6) in patients was 72.3+or-34.4 pg/ml. ICU admitted patients had higher IL6 levels (p=0.001). The mean interleukin 6 level was 89.04+or-34.1 pg/ml in patients admitted for less than 7 days and it was significantly higher (119.2+or-28.3) in patients hospitalized for more than 7 days (p=0.001). There was no significant difference in terms of nutritional status and albumin level between ICU admitted and ward admitted patients (p >0.05). Our study shows that there may be possible associations of IL6 and disease severity and ICU stay length.

Publication Type

Journal article.

<608>

Accession Number

20203551787

Author

Cloutier, M.; Nandi, M.; Ihsan, A. U.; Chamard, H. A.; Ilangumaran, S.; Ramanathan, S.

Title

ADE and hyperinflammation in SARS-CoV2 infection- comparison with dengue hemorrhagic fever and feline infectious peritonitis.

Source

Cytokine; 2020. 136. 150 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The COVID-19 pandemic has rapidly spread around the world with significant morbidity and mortality in a subset of patients including the elderly. The poorer outcomes are associated with 'cytokine storm-like' immune responses, otherwise referred to as 'hyperinflammation'. While most of the infected individuals show minimal or no symptoms and recover spontaneously, a small proportion of the patients exhibit severe symptoms characterized by extreme dyspnea and low tissue oxygen levels, with extensive damage to the lungs referred to as acute respiratory distress symptom (ARDS). The consensus is that the hyperinflammatory response of the host is akin to the cytokine storm observed during sepsis and is the major cause of death. Uncertainties remain on the factors that lead to hyperinflammatory response in some but not all individuals. Hyperinflammation is a common feature in different viral infections such as dengue where existing low-titer antibodies to the virus enhances the infection in immune cells through a process called antibody-dependent enhancement or ADE. ADE has been reported following vaccination or secondary infections with other corona, Ebola and dengue virus. Detailed analysis has shown that antibodies to any viral epitope can induce ADE when present in sub-optimal titers or is of low affinity. In this review we will discuss ADE in the context of dengue and coronavirus infections including Covid-19.

Publication Type

Journal article.

<609>

Accession Number

20203550477

Author

Souri, H.; Fard, M. N.; Ariamanesh, S.

Title

Assessment of the mental health status of social media users during the outbreak of COVID-19. [Persian]

Source

Qom University of Medical Sciences Journal; 2020. 14(8):fa22-fa29, en21. 25 ref.

Publisher

Qom University of Medical Sciences

Location of Publisher

Qom

Country of Publication

Iran

Abstract

Background and Objectives: The sudden outbreak of coronavirus disease 2019 (COVID-19) as a shock to the international community, especially global health policymakers, has affected millions of individuals. The current study aimed to investigate the mental health status of social media users during the outbreak of COVID-19 in Iran. Methods: The present descriptive study was carried out on a total of 443 Telegram and WhatsApp users selected using convenience sampling. Data collection was conducted by the online questionnaire of the symptoms of mental disorders of Hopkins Symptoms Checklist (HSCL)-25. The statistical methods of mean and standard deviation and t-test were used in order to analyze the data. Results: The obtained findings showed that the mean total score of the symptoms of mental disorders was relatively high among the participants. Based on the results, it was shown that the mean score of mental symptoms among the study subjects at low levels was 9.27%. In this study, phobia among the respondents was reported with an average of 27.3%. The lowest rate among mental disorders was related to psychosis with an average of 0.5% (P<0.05). Conclusion: Based on the findings of the current study, the mean scores of women in mental disorders, physical complaints, obsessive-compulsive disorder, interpersonal sensitivity, and paranoid thoughts were higher than those reported for men. The infected individuals with COVID-19 had higher symptoms of mental disorders in the components of physical complaints, obsessive-compulsive disorder, anxiety, and phobia than those not infected with COVID-19. The single participants had higher symptoms of mental disorders than the married subjects. The symptoms of physical complaints, anxiety, and phobia were higher among the patients with chronic illnesses than those without chronic diseases. The frequency of phobia was higher among the participants with parents suffering from chronic diseases.

Publication Type

Journal article.

<610>

Accession Number

20203550261

Author

Li Tao; Zhang YaLan; Gong Cheng; Wang Jing; Liu Bao; Shi Li; Duan Jun

Title

Prevalence of malnutrition and analysis of related factors in elderly patients with COVID-19 in Wuhan, China.

Source

European Journal of Clinical Nutrition; 2020. 74(6):871-875. 29 ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Background/objectives: To evaluate the prevalence of malnutrition and its related factors in elderly patients with COVID-19 in Wuhan, China. Subjects/methods: In a cross-sectional study, we evaluated the nutritional status of elderly inpatients with COVID-19 using the Mini Nutritional Assessment (MNA). Based on MNA scores, patients were divided into non-malnutrition group (MNA 24), the group with risk of malnutrition (MNA 17-23.5) and malnutrition group (MNA score < 17). Regression analysis was conducted to screen for risk factors for malnutrition. Results: A total of 182 patients were included in the study, of which 27.5% were in the group with malnutrition risk and 52.7% were in the malnutrition group. There were statistical differences in the incidence of comorbid diabetes mellitus, body mass index (BMI), calf circumference, albumin, hemoglobin, and lymphocyte counts among the three groups. Further regression analysis suggested that combined diabetes, low calf circumference, and low albumin were independent risk factors for malnutrition. Conclusions: The prevalence of malnutrition in elderly patients with COVID-19 was high, and nutritional support should be strengthened during treatment, especially for those with diabetes mellitus, low calf circumference, or low albumin.

Publication Type

Journal article.

<611>

Accession Number

20203550257

Author

Mattioli, A. V.; Puviani, M. B.; Nasi, M.; Farinetti, A.

Title

COVID-19 pandemic: the effects of quarantine on cardiovascular risk.

Source

European Journal of Clinical Nutrition; 2020. 74(6):852-855. 37 ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

COVID-19 is causing a global pandemic with a high number of deaths and infected people. To contain the diffusion of COVID-19 virus, Governments have enforced restrictions on outdoor activities or even collective quarantine on the population. One important consequence of quarantine is a change in lifestyle: reduced physical activity and unhealthy diet. 2019 guidelines for primary prevention of cardiovascular disease indicate that "Adults should engage in at least 150 minute per week of accumulated moderate-intensity or 75 minute per week of vigorous-intensity aerobic physical activity (or an equivalent combination of moderate and vigorous activity) to reduce ASCVD risk." During quarantine, strategies to further increase home-based physical activity and to follow a healthy diet should be implemented. Quarantine carries some long-term effects on cardiovascular disease, mainly related to unhealthy lifestyle and anxiety. Following quarantine a global action supporting healthy diet and physical activity is mandatory to encourage people to return to good lifestyle.

Publication Type

Journal article.

<612>

Accession Number

20203548243

Author

Horman, W. S. J.; Nguyen, T. H. O.; Kedzierska, K.; Butler, J.; Shan SongHua; Layton, R.; Bingham, J.; Payne, J.; Bean, A. G. D.; Layton, D. S.

Title

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606

The dynamics of the ferret immune response during H7N9 influenza virus infection.

Source

Frontiers in Immunology; 2020. 11(September). 49 ref.

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

As the recent outbreak of SARS-CoV-2 has highlighted, the threat of a pandemic event from zoonotic viruses, such as the deadly influenza A/H7N9 virus subtype, continues to be a major global health concern. H7N9 virus strains appear to exhibit greater disease severity in mammalian hosts compared to natural avian hosts, though the exact mechanisms underlying this are somewhat unclear. Knowledge of the H7N9 host-pathogen interactions have mainly been constrained to natural sporadic human infections. To elucidate the cellular immune mechanisms associated with disease severity and progression, we used a ferret model to closely resemble disease outcomes in humans following influenza virus infection. Intriguingly, we observed variable disease outcomes when ferrets were inoculated with the A/Anhui/1/2013 (H7N9) strain. We observed relatively reduced antigen-presenting cell activation in lymphoid tissues which may be correlative with increased disease severity. Additionally, depletions in CD8+ T cells were not apparent in sick animals. This study provides further insight into the ways that lymphocytes maturate and traffic in response to H7N9 infection in the ferret model.

Publication Type

Journal article.

<613>

Accession Number

20203546107

Author

Shorey, S.; Ang, E.; Yamina, A.; Tam, C.

Title

Perceptions of public on the COVID-19 outbreak in Singapore: a qualitative content analysis.

Source

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607

Journal of Public Health; 2020. 42(4):665-671. 29 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Background: Singapore is among the several countries affected by the COVID-19 outbreak. The outbreak has elicited panic and unease among Singapore's public. This study aimed to analyze the comments left on local media news outlets to find common concerns and discuss potential new measures that can be developed to reduce panic and support for Singapore's public during and beyond COVID-19. Methods: A qualitative content analysis on the comments on relevant news articles from the Facebook pages of six online local news publications dated from 23 January 2020 to the 3 April 2020 was carried out. Results: Five common themes were derived: fear and concern (35.42%), panic buying and hoarding (21.21%), reality and expectations about the situation (20.24%), staying positive amid the 'storm' (10.07%) and worries about the future (5.01%). The analysis revealed that fear and concern were the main reasons behind the public's responses. Conclusion Clear communication between the government and the public is one of the best ways to maintain calm among the public and to contribute to greater social cooperation. Timely updates and support measures from the government further help to maintain social peace and cohesion.

Publication Type

  Journal article.

<614>

Accession Number

  20203545951

Author

  Zhang, S. X.; Graf-Vlachy, L.; Looi KimHoe; Su Rui; Li JiZhen

Title

  Social media use as a predictor of handwashing during a pandemic: evidence from COVID-19 in Malaysia.

Source

  Epidemiology and Infection; 2020. 148(e261). 13 ref.

Publisher

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608

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

Although handwashing is an effective way to prevent infections, there is scarce evidence on predictors of handwashing during a pandemic. This paper aims to identify behavioural and demographic predictors of handwashing. The study surveyed 674 adults in Malaysia in May 2020 regarding whether the time spent on social media predicted handwashing contingent on gender and number of children. More time spent on social media was positively associated with handwashing for males with three or more children. However, for males without children, social media use was negatively associated with handwashing. The association was not significant for males with one or two children. For females, more time spent on social media was significantly linked to more handwashing only for females with one child. Gender, a traditional predictor of handwashing, was a useful predictor only for those who spent more than three hours per day on social media and had at most one child. Number of children was a novel negative predictor for males who did not use social media and who averaged one hour per day on social media, a positive predictor for males who spent lots of time on social media, but not a predictor for females. In sum, social media use predicts handwashing, and is thus a helpful variable for use in targeted health communication during a pandemic - particularly through social media. Further, more conventional predictors like gender and number of children exhibit contingency effects with social media use.

Publication Type

Journal article.

<615>

Accession Number

20203545130

Author

Cuschieri, S.; Grech, S.

Title

Obesity population at risk of COVID-19 complications.

Source

Global Health, Epidemiology and Genomics; 2020. 5(e6). 60 ref.

Publisher

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609

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

Introduction: Global public health is challenged by two concurrent epidemics; COVID-19 and obesity. Considering the global prevalence of obesity, exploring relationships with COVID-19 are of clinical importance. The aim was to provide a comprehensive summary and recommendations on this relationship between COVID-19 and obesity. Method: A literature search was performed to prepare a narrative review of COVID-19 and obesity. Results: An obesity state promotes chronic inflammation, vitamin D deficiency, hinders immunity and causes mechanical lung compression. These increase susceptibilities to COVID-19 infection, complications including the requirement of invasive ventilation. Existing co-morbidities enhances these complications. Preventive measures of social distancing and self-isolation may increase stigmatisation and psychological deterrents. Hence, special recommendations targeting this vulnerable population are required. Conclusion: The obese population is a COVID-19 vulnerable group, requiring special attention during this pandemic to avoid complications and healthcare systems burden. Lacking COVID-19 vaccination, regular physical activity and a healthy diet are recommended with attention to mental health. A prolonged quarantine duration and administration of prophylactic vitamin D may be considered.

Publication Type

Journal article.

<616>

Accession Number

20203541168

Author

Gaddamwar, A. G.; Rajput, P. R.; Parsodkar, V. J.

Title

Extraction of basil, padina, ajwain and development of oxygen garden in the school yard as a preventive measure for COVID-19.

Source

International Journal for Research in Applied Science and Engineering Technology; 2020. 8(6):1408-1411. 25 ref.

Publisher

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610

Indian Institute of Technology

Location of Publisher

Bombay

Country of Publication

India

Abstract

According to phyto-chemical composition of basil viz. 1. Rama tulsi (Ocimum sanctum), 2. Krishna tulsi (Ocimum tenuiflorum), 3. Amrita tulsi (Ocimum tenuiflorum), 4. Vana tulsi (Ocimum gratissum), pudina (Mint), Ajwan (Trachyspermum ammi) are very much useful in the prevention of Covid-19 pandemic, basil botanical species viz. (Ocimum sanctum, Ocimum tenuiflorum, Amrita tulsi, Ocimum gratissum) also release oxygen 20 hours, 4 hours ozone by the absorption of carbon dioxide, carbon monoxide and oxide of sulphure. Ocimum sanctum (OS) has many medicinal properties like antioxidant, antidiabetic, antiulcer, anticancer, antibacterial, antifungal and other. The phytochemicals compounds of Ocimum, alkaloids, flavonoids, phenolics, essential oils, tannins and saponins play an important role in herbal medicine. Ocimum species have been found to contain many medicinally relevant properties including anti-cancer, antioxidant, antifungal and anti-inflammatory virtues, and are also recommended for the treatment of malaria, bronchitis, diarrhea, dysentery, fever, pneumonia etc. Whereas mint species originally used as a medicinal herb to treat stomach-aches and chest pains, and it is commonly used in the form of tea as a home remedy to stimulate digestion; alleviate stomach pain; and treat biliary disorders, dyspepsia, enteritis, flatulence, gastritis, gastric acidities, aerophagia, intestinal colic. It is also used as an environmentally friendly insecticide for its ability to kill some common pests such as wasps, hornets, ants, and cockroaches. Ajwan extract or its oil has a fungicidal, antimicrobial and anti-aggregatory effects on humans. Ajwain has a traditional potential herb and is widely used for curing various diseases in humans and animals. The fruit possesses stimulant, antispasmodic and carminative properties. It is an important remedial agent for flatulence, atonic dyspepsia and diarrhea. The seed of ajwain is bitter, pungent and it acts as anthelmintic, carminative, laxative, and stomachic. It also cures abdominal tumors, abdominal pains and piles. Seeds contain an essential oil containing about 50% thymol which is a strong germicide, anti-spasmodic and fungicide. Thymol is also used in toothpaste and perfumery.

Publication Type

Journal article.

<617>

Accession Number

20203538953

Author

Ospanov, M.; Leon, F.; Jenis, J.; Khan, I. A.; Ibrahim, M. A.

Title

Challenges and future directions of potential natural products leads against 2019-nCoV outbreak. (Special Issue: Plant synthetic biology.)

Source

Current Plant Biology; 2020. 24. 88 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Except for RemdesivirR no other drug or vaccine has yet been approved to treat the coronavirus disease (COVID-19) caused by the virus known as, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). RemdesivirR an small molecule and nucleic acid analogue, it is used to treat adults and children with laboratory confirmed COVID-19, only administrated in hospital settings. Small molecules and particularly natural products count for almost fifty percent of the commercially available drugs, several of them are marketed antiviral agents and those can be a potential agent to treat COVID-19 infections. This short review rationalized different key natural products with known activity against coronaviruses as potential leads against COVID-19.

Publication Type

Journal article.

<618>

Accession Number

20203533904

Author

Gu HaiYing; Wang ChangWei

Title

Impacts of the COVID-19 pandemic on vegetable production and countermeasures from an agricultural insurance perspective. (Special Focus: Impacts of COVID-19 on agriculture and rural poverty in China.)

Source

Journal of Integrative Agriculture; 2020. 19(12):2866-2876. 28 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

In the face of the corona virus disease 2019 (COVID-19) pandemic, it is essential to stabilize the security of urban "shopping baskets". Through a survey and interviews with 46 agricultural cooperatives in Shanghai, this paper analyzes the impact of the pandemic on vegetable production and offers suggestions on agricultural insurance. The research results show that: (1) the pandemic has impacted almost all stages of the vegetable supply chain but has had a greater impact on the sales stage; (2) the market risks of vegetable production have increased significantly, and the gap between the field price and the market price has widened. The sales price difference between traditional channels and e-commerce is notable; (3) farmers' incomes have generally declined due to the COVID-19 pandemic, and traditional small-scale farmers have suffered more losses; and (4) agricultural insurance plays an important role in stabilizing the supply of vegetables to the city. To minimize the impact of the pandemic on vegetable production and to stabilize both urban "shopping baskets" and farmers' incomes, it is necessary to further improve agricultural insurance, especially to provide insurance against market risks.

Publication Type

Journal article.

<619>

Accession Number

20203533903

Author

Zhou JieHong; Han Fei; Li Kai; Wang Yu

Title

Vegetable production under COVID-19 pandemic in China: an analysis based on the data of 526 households. (Special Focus: Impacts of COVID-19 on agriculture and rural poverty in China.)

Source

Journal of Integrative Agriculture; 2020. 19(12):2854-2865. many ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The COVID-19 pandemic had an enormous impact on the vegetable supply chain in China. Effective evaluation of the pandemic's influences on vegetable production is vital for policy settings to enhance the security of vegetable supply. Based on first-hand data from 526 households, we explored regional differences in different types of loss and potential factors affecting the severity farmer households suffered during the pandemic. The results underline that sales contraction and price volatility in the context of interruption of supply chain dominate the total losses during the pandemic. Such losses differ across provinces and are more substantial in provinces with stricter confinement measures. Farmer households' participation in local market and modern marketing methods helps mitigate the negative effects of the COVID-19 shock, while labor hiring and facilities adoption in production widen the losses due to the shortage in the workforce. In the future, the vegetable industry practitioners and relevant government departments should work together to coordinate the development of short and long supply chains and strengthen the stability and security of the vegetable supply chain.

Publication Type

Journal article.

<620>

Accession Number

20203529202

Author

Levy, E.; Delvin, E.; Marcil, V.; Spahis, S.

Title

Can phytotherapy with polyphenols serve as a powerful approach for the prevention and therapy tool of novel coronavirus disease 2019 (COVID-19)?

Source

American Journal of Physiology - Endocrinology and Metabolism; 2020. 319(4):E689-E708. 248 ref.

Publisher

American Physiological Society

Location of Publisher

Bethesda

Country of Publication

USA

Abstract

Much more serious than the previous severe acute respiratory syndrome (SARS) coronavirus (CoV) outbreaks, the novel SARS-CoV-2 infection has spread speedily, affecting 213 countries and causing ~17,300,000 cases and ~672,000 (~+1,500/day) deaths globally (as of July 31, 2020). The potentially fatal coronavirus disease (COVID-19), caused by air droplets and airborne as the main transmission modes, clearly induces a spectrum of respiratory clinical manifestations, but it also affects the immune, gastrointestinal, hematological, nervous, and renal systems. The dramatic scale of disorders and complications arises from the inadequacy of current treatments and absence of a vaccine and specific anti-COVID-19 drugs to suppress viral replication, inflammation, and additional pathogenic conditions. This highlights the importance of understanding the SARS-CoV-2 mechanisms of actions and the urgent need of prospecting for new or alternative treatment options. The main objective of the present review is to discuss the challenging issue relative to the clinical utility of plants-derived polyphenols in fighting viral infections. Not only is the strong capacity of polyphenols highlighted in magnifying health benefits, but the underlying mechanisms are also stressed. Finally, emphasis is placed on the potential ability of polyphenols to combat SARS-CoV-2 infection via the regulation of its molecular targets of human cellular binding and replication, as well as through the resulting host inflammation, oxidative stress, and signaling pathways.

Publication Type

Journal article.

<621>

Accession Number

20203524972

Author

Delaquis, E.

Title

COVID-19, seed security and social differentiation: when it rains, it pours.

Source

Food Chain; 2020. 9(2):103-106. 34 ref.

Publisher

Practical Action Publishing

Location of Publisher

Rugby

Country of Publication

UK

Abstract

Food security and seed security are closely linked, especially for poor smallholders in developing countries. The impacts of COVID-19 highlight the vulnerability of marginalized groups, and their exposure across multiple social and economic dimensions. Employing seed interventions as part of the COVID-19 recovery requires recognizing local social dynamics, or risks worsening the situation for the most disadvantaged.

Publication Type

Journal article.

<622>

Accession Number

20203506085

Author

Anteneh Belayneh

Title

Off-label use of chloroquine and hydroxychloroquine for COVID-19 treatment in Africa against WHO recommendation.

Source

Research and Reports in Tropical Medicine; 2020. 11(61-72):61-72. 54 ref.

Publisher

Dove Medical Press Ltd

Location of Publisher

Macclesfield

Country of Publication

UK

Abstract

COVID-19 is continuing as a big challenge for the globe and several types of research are continued to find safe and effective treatment and preventive options. Although there is a lack of conclusive evidence of their benefit, there is worldwide controversy to use anti-malarial drugs, hydroxychloroquine and chloroquine, for the treatment of COVID-19. FDA issued an emergency use authorization to the use of these drugs for the treatment of COVID-19. On the contrary to the FDA, the European Medicines Agency has warned against the widespread use of these drugs to treat COVID-19. Finally, the WHO declared that clinical trials on these

drugs are halted after the devastating findings of the study published in the medical journal called The Lancet. Against this fact, there are several rumors about the irresponsible use of these drugs in Africa for the treatment of COVID-19. This work aimed to review the off-label use of these drugs for the treatment of COVID-19 in African countries against WHO recommendation. Data on the use of these drugs for the treatment of COVID-19 in African countries were searched from credible sources including Scopus, PubMed, Hindawi, Google Scholar, and from local and international media. The study showed that many African countries have already approved at the national level to use these drugs to treat COVID-19 by opposing WHO warnings. In addition to this, falsified and substandard chloroquine products started to emerge in some African countries. The health sectors of the African government should critically compare the risks and benefits before using these drugs. The WHO and African drug regulatory organizations should intervene to stop the off-label use practice of these drugs against the licensed purpose and distribution of falsified and substandard products in the continent.

Publication Type

Journal article.

<623>

Accession Number

20203505877

Author

Indrashis Podder; Komal Agarwal; Subhendu Datta

Title

Comparative analysis of perceived stress in dermatologists and other physicians during national lock-down and COVID-19 pandemic with exploration of possible risk factors: a web-based cross-sectional study from Eastern India.

Source

Dermatologic Therapy; 2020. 33(4). 17 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

Abstract

Since the declaration of coronavirus disease 2019 (COVID-19) as global pandemic, several countries including India have enforced a national lock-down. We aimed to compare the perceived stress of dermatologists and nondermatologists, due to lock-down and COVID-19 pandemic and analyze the role of possible risk factors. We conducted a web-based cross-sectional study to determine the perceived stress of doctors using the Perceived Stress Scale-10 and evaluate possible risk factors. Among 384 valid responders, we had 37.5% dermatologists and 62.5% nondermatologists. Perceived stress was more in nondermatologists compared to dermatologists, but not statistically significant (P = 0.1). Degree of stress was also comparable (P = 0.5). Higher stress was significantly associated with females and unmarried individuals in both groups. Risk of infecting self or colleagues or family members and lack of protective gear at work place were top causes of stress. Perceived stress is increased in all doctors due to COVID-19 pandemic and lock-down. Even dermatologists have developed high stress due to current situation, comparable to nondermatologists, despite being traditionally considered an outpatient speciality with minimum stress. Thus, proper mental health care policies should be adopted for all doctors, including dermatologists.

Publication Type

Journal article.

<624>

Accession Number

20203505857

Author

Sheetanshu Kumar; Anuradha Bishnoi; Keshavamurthy Vinay

Title

Changing paradigms of dermatology practice in developing nations in the shadow of COVID-19: lessons learnt from the pandemic.

Source

Dermatologic Therapy; 2020. 33(4). 5 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

Abstract

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618

At present, routine dermatology practices stay mostly disrupted worldwide owing to the ongoing COVID-19 pandemic. However, dermatology services need to be resumed in future and dermatologists especially in developing countries face a mammoth task of devising plans to tackle the upcoming surge of patients while still maintaining the precautions to avoid risk of infection to health care workers and our patients. Teledermatology practice is a viable alternative and there is need of starting functioning teledermatology centers at primary health care centers and training health care workers in telemedicine. Several steps like increasing the working hours of outpatient clinics, posting dermatologists and health staffs in shifts, encouraging online registration and payment, providing time slots to patients should be taken to prevent overcrowding at outpatient departments in hospitals of developing countries like India where the usual patient turnover during summers maybe around 600 to 800 per day. Once diagnosed by the dermatologist, a subsequent meticulous use of teledermatology can limit the number of follow-up visits. To avoid student gatherings, the undergraduate and postgraduate teaching schedule should be replaced by online or virtual teaching in form of webinars and video conferencing. Above all, intense upgradation of health care infrastructure, recruitment, training of new health care staffs on mass level and huge investment in health care sector is required in all the developing countries.

Publication Type

Journal article.

<625>

Accession Number

20203505852

Author

Ishmeet Kaur; Aseem Sharma; Deepak Jakhar; Anupam Das; Aradhya, S. S.; Rashmi Sharma; Veenu Jindal; Madhulika Mhatre

Title

Coronavirus disease (COVID-19): an updated review based on current knowledge and existing literature for dermatologists.

Source

Dermatologic Therapy; 2020. 33(4). 99 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

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619

Abstract

The world entered the year 2020 with reports of the emergence of a new viral illness in Wuhan city, Hubei province, China. In January 2020, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was identified to be the causative novel coronavirus for the cluster of patients suffering from pneumonia in China. The disease was later named as coronavirus disease (COVID-19) and was declared a pandemic by the World Health Organization on March 11, 2020. Several studies, since then, have tried to study and explain the origin of SARS-CoV-2, its structure and pathogenicity, epidemiology, modes of transmission, spectrum of illness and causes of mortality and morbidity. The current management strategies focus on supportive care and prevention of complications. With no definite treatment, as of now, encouraging reports of some anti-viral and anti-malarial drugs in the management of COVID-19 generate some hope. This review intends to cover the current known aspects of COVID-19 and SARS-CoV-19, based on the available literature.

Publication Type

Journal article.

<626>

Accession Number

20203505847

Author

Kutlu, O.; Gunes, R.; Coerdt, K.; Metin, A.; Khachemoune, A.

Title

The effect of the "stay-at-home" policy on requests for dermatology outpatient clinic visits after the COVID-19 outbreak.

Source

Dermatologic Therapy; 2020. 33(4). 13 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

Abstract

The Coronavirus Disease 2019 (COVID-19) emerged late in Turkey but it showed a rapid progression later. We aimed to investigate the changes in the number of patients who requested a dermatology outpatient clinic visit due to the increased social and medical burden caused by COVID-19 in Turkey during the first

days of the pandemic. We also examined the most common dermatologic diseases diagnosed during the COVID-19 outbreak. A statistically significant negative correlation was found between the number of COVID-19 patients in the country and the number of patients requesting a dermatology outpatient clinic visit in the secondary and tertiary care hospitals during self-quarantine. In the first 10 days after the COVID-19 outbreak, acne (28.2%), urticaria (12.8%), scabies (12.8%), irritant contact dermatitis (10.3%), and xerosis cutis (10.2%) were the most common diseases seen in the dermatology clinic at the secondary care hospital, while acne (23.3%), warts (5.4%), seborrheic dermatitis (4.5%), urticaria (3.8%), and psoriasis (3.32%) were the most common diseases seen in the dermatology clinic at the tertiary care hospital. This is our first study on the frequency and nature of outpatient dermatology visits during this novel coronavirus pandemic. Understanding the trends and impacts of dermatologic diseases on patients and health systems during this pandemic will allow for better preparation of dermatologists in the future.

Publication Type

Journal article.

<627>

Accession Number

20203505836

Author

Sadoughifar, R.; Goldust, M.; Abdshahzadeh, H.; Abrishamchi, R.; Rudnicka, L.; Jafferany, M.; Mrinal Gupta

Title

Artificial intelligence in diagnosis and management of COVID-19 in dermatology.

Source

Dermatologic Therapy; 2020. 33(4). 10 ref.

Publisher

Wiley

Location of Publisher

Boston

Country of Publication

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Publication Type

Journal article.

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621

<628>

Accession Number

  20203505768

Author

  Schwartz, R. A.; Kapila, R.

Title

  Cutaneous manifestations of a 21st century worldwide fungal epidemic possibly complicating the COVID-19 pandemic to jointly menace mankind.

Source

  Dermatologic Therapy; 2020. 33(4).

Publisher

  Wiley

Location of Publisher

  Boston

Country of Publication

  USA

Abstract

  In view of the new viral COVID-19 pandemic, the fungal Candida auris epidemic still in progress worldwide highlights non-Candida albicans candidal infections. We describe an immunocompetent woman with a cutaneous manifestation of Candida parasilopsis fungemia, a prominent eschar, which proved to be the nidus for the candidemia. We stress the value of selectively removing eschars. C. parasilopsis and C. auris are increasingly important causes of sepsis and wound infections. We emphasize that commercially available biochemical-based tests may misidentify C. auris as C. parapsilosis, and stress the added danger of C. auris to critically ill-hospitalized COVID-19 patients. Any health care facility with evidence of infection or colonization with C. auris requires very close monitoring, since this fungus is a nosocomial threat comparable to SARS-CoV-2 in its mortality and fomite adhesiveness! Both organisms have the potential to be transmitted as nosocomial pathogens; health care workers need to follow strict CDC guidelines. During this COVID-19 pandemic, every health care facility should closely monitor for the possible deadly combination of the SARS-CoV-2 and C. auris. The identification of C. auris necessitates use of sophisticated technology not readily available to make this essential diagnosis since C. auris is multi-drug resistant and isolation precautions would become paramount.

Publication Type

  Journal article.

<629>

Accession Number

  20203505672

Author

  Melo, G.

Title

  The path forward: U.S. consumer and food retail responses to COVID-19. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

  Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3). 46 ref.

Publisher

  American Agricultural Economics Association

Location of Publisher

  Ames

Country of Publication

  USA

Abstract

  The recovery from the global pandemic and economic crisis will be prolonged and erratic (Lahart, 2020). Six months into the COVID-19 crisis, countries around the world are experiencing the symptoms of a social and political economic recession, characterized by heightened economic uncertainty. To make sense of market outcomes, it is critical to understand consumer behavior in times of significant shocks to the financial system. This article provides insights into the effect of COVID-19 on consumer behavior by exploring essential questions, with implications for the food retailing sector, such as whether consumers under a pandemic are "rational" and what the "new normalcy" in post-pandemic consumer behavior and retail will look like. I employ market and media reports that present the timeliest information, along with evidence from behavioral economics and the emerging economic literature, to addresses these questions. We hope to serve as a jumping-off point for debate and future research into the impact of COVID-19 on consumer behavior.

Publication Type

  Journal article.

<630>

Accession Number

  20203505671

Author

  Walters, L.; Wade, T.; Suttles, S.

Title

  Food and agricultural transportation challenges amid the COVID-19 pandemic. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

  Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3). 34 ref.

Publisher

  American Agricultural Economics Association

Location of Publisher

  Ames

Country of Publication

  USA

Abstract

  This article highlights the logistical challenges posed by the COVID-19 pandemic for the U.S. food supply chain and reviews emergency support provided through the transportation sector given specific regulatory exemptions.

Publication Type

  Journal article.

<631>

Accession Number

  20203505238

Author

  Santos, W. G. dos

Title

Natural history of COVID-19 and current knowledge on treatment therapeutic options.

Source

Biomedicine & Pharmacotherapy; 2020. 129. 250 ref.

Publisher

Elsevier Masson SAS

Location of Publisher

Issy-les-Moulineaux

Country of Publication

France

Abstract

Despite intense research there is currently no effective vaccine available against the new severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) emerged in the later 2019 and responsible for the COVID-19 pandemic. This infectious and communicable disease has become one of the major public health challenges in the world. The clinical management of COVID-19 has been limited to infection prevention and control measures associated with supportive care such as supplemental oxygen and mechanical ventilation. Meanwhile efforts to find an effective treatment to inhibit virus replication, mitigate the symptoms, increase survival and decrease mortality rate are ongoing. Several classes of drugs, many of them already in use for other diseases, are being evaluated based on the body of clinical knowledge obtained from infected patients regarding to the natural history and evolution of the infection. Herein we will provide an updated overview of the natural history and current knowledge on drugs and therapeutic agents being tested for the prevention and treatment of COVID-19. These include different classes of drugs such as antiviral agents (chloroquine, ivermectin, nitazoxanide, hydroxychloroquine, lopinavir, remdesivir, tocilizumab), supporting agents (Vitamin C, Vitamin D, azithromycin, corticosteroids) and promising investigational vaccines. Considering the controversies and excessive number of compounds being tested and reported in the literature we hope that this review can provide useful and updated consolidated information on potential drugs used to prevent, control and treat COVID-19 patients worldwide.

Publication Type

Journal article.

<632>

Accession Number

20203490658

Author

Sheptak, R. D.; Menaker, B. E.

Title

When sport event work stopped: exposure of sport event labor precarity by the COVID-19 pandemic. (Special Issue: Sport and the coronavirus crisis.)

Source

  International Journal of Sport Communication; 2020. 13(3):427-435. 19 ref.

Publisher

  Human Kinetics

Location of Publisher

  Leeds

Country of Publication

  UK

Abstract

  The COVID-19 pandemic of 2020 has exposed major weaknesses in economic, governmental, and social structures that many have taken for granted in everyday life. The sport industry, which has gained unprecedented popularity in recent decades, is no exception. Decisions, driven in response to the COVID-19 outbreak, to suspend play in major sports leagues across the globe have exposed the precarious nature of the work situation that hourly event workers find themselves in. As the games stopped, so did the earnings of workers who impact essential aspects of the sport spectators' experience. These workers include the part-time front of house staff for public assembly facilities, including ushers, concessions workers, ticket takers, and security personnel. This essay, drawing on ideas from C.W. Mills, Arne Kalleberg, and Guy Standing, will examine the impact of the pandemic on the employment of these workers by looking at the state of labor associated with sport and sports events. Furthermore, the essay will explore the challenges facing a class of workers who depend on numerous part-time or seasonal sports event jobs to scrape together an existence when sport suddenly stops. Finally, the essay will address the potential aftereffects of the COVID-19 pandemic on sport labor and consider how sport work could change as a result. This scholarly commentary lays the groundwork for further study and analysis of an important, yet rarely remarked on, aspect of employment morality and sport labor studies.

Publication Type

  Journal article.

<633>

Accession Number

  20203490649

Author

  King, K. R.

Title

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626

Professional tennis's constellational response to COVID-19. (Special Issue: Sport and the coronavirus crisis.)

Source

Publisher

Human Kinetics

Location of Publisher

Leeds

Country of Publication

UK

Abstract

Tennis's dispersed power relations have made its semiorganized response to COVID-19 "constellational" rather than hierarchical. The author uses the term "constellational" in two senses. First, what might appear to be a disorganized set of stars in the night sky can, with a bit of orientation, be tracked into discernible and more meaningful patterns. In tennis, constellations are clusters of tour events that are linked through geography, court surface, governing bodies, key sponsors, and other forms of patronage. Second, the author invoked the language of "constellations" to draw upon the popular connotation of "stars": iconic figures on- and off-court who speak and act in ways that carry outsize importance to the game's audience. This constellational set of power relations has led to conflicted messaging - only sometimes valuing public health. Both prestigious tournaments and star players have emerged as important stakeholders, as tennis assesses its future - and organizational structure - postpandemic.

Publication Type

Journal article.

<634>

Accession Number

20203490646

Author

Sanderson, J.; Brown, K.

Title

COVID-19 and youth sports: psychological, developmental, and economic impacts. (Special Issue: Sport and the coronavirus crisis.)

Source

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627

International Journal of Sport Communication; 2020. 13(3):313-323. 37 ref.

Publisher

  Human Kinetics

Location of Publisher

  Leeds

Country of Publication

  UK

Abstract

  COVID-19 has dramatically altered and disrupted sport in unprecedented ways, and youth sports is one sector that has been profoundly impacted. In the United States, the youth sports industry generates $19 billion dollars annually, while youth sport tourism is estimated at $9 billion annually. With youth sports at a standstill, the effect on the youth sports infrastructure is significant. The purpose of this scholarly commentary was to discuss the psychological, developmental, and economic fallout from the stoppage of youth sports that has touched millions of participants, their families, and a substantial youth sports structural system. This work also addresses the potential restructuring of youth sport megacomplexes, cascading effects of canceled seasons, likely sponsorship losses, and potential growing socioeconomic divide in participation that could result from the pandemic. Thus, there is still much uncertainty about the future of youth sport participation and subsequent adjustments that may impact established participation and consumption norms.

Publication Type

  Journal article.

<635>

Accession Number

  20203448845

Author

  Wan Asyraf Wan Zaidi; Abdul Hanif Khan Yusof Khan; Chung LawWan; Kee, H. F.; Looi, I.; Lip AngChong; Choon WongYee; Soon, M. C.; Yong TanWee; Wan Nur Nafisah Wan Yahya; Basri, H.

Title

  Malaysia stroke council guide on acute stroke care service during COVID-19 pandemic.

Source

  Medical Journal of Malaysia; 2020. 75(3):311-313. 9 ref.

Publisher

Malaysian Medical Association

Location of Publisher

Kuala Lumpur

Country of Publication

Malaysia

Abstract

On the 18th of March 2020, the Malaysia government declared a movement control order (MCO) due to the unprecedented COVID-19 pandemic. Although the majority of patients presented with respiratory-related symptoms, COVID-19 patients may present atypically with neurological manifestations and may even have an increased risk of stroke. The Malaysia Stroke Council is concerned regarding the level of care given to stroke patients during this pandemic. During the recent National Stroke Workflow Steering Committee meeting, a guide was made based on the currently available evidences to assist Malaysian physicians providing acute stroke care in the hospital setting in order to provide the best stroke care while maintaining their own safety. The guide comprises of prehospital stroke awareness, hyperacute stroke care, stroke care unit and intensive care unit admission, post-stroke rehabilitation and secondary prevention practice. We urge continuous initiative to provide the best stroke care possible and ensure adequate safety for both patients and the stroke care team.

Publication Type

Journal article.

<636>

Accession Number

20203555469

Author

Goldberg, D. L.; Anenberg, S. C.; Griffin, D.; McLinden, C. A.; Lu ZiFeng; Streets, D. G.

Title

Disentangling the impact of the COVID-19 lockdowns on urban NO2 from natural variability.

Source

Geophysical Research Letters; 2020. 47(17). 21 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

TROPOMI satellite data show substantial drops in nitrogen dioxide (NO2) during COVID-19 physical distancing. To attribute NO2 changes to NOx emissions changes over short timescales, one must account for meteorology. We find that meteorological patterns were especially favorable for low NO2 in much of the United States in spring 2020, complicating comparisons with spring 2019. Meteorological variations between years can cause column NO2 differences of ~15% over monthly timescales. After accounting for solar angle and meteorological considerations, we calculate that NO2 drops ranged between 9.2% and 43.4% among 20 cities in North America, with a median of 21.6%. Of the studied cities, largest NO2 drops (>30%) were in San Jose, Los Angeles, and Toronto, and smallest drops (<12%) were in Miami, Minneapolis, and Dallas. These normalized NO2 changes can be used to highlight locations with greater activity changes and better understand the sources contributing to adverse air quality in each city.

Publication Type

Journal article.

<637>

Accession Number

20203555078

Author

Zhou Hong; Fang Yan; Xu Tao; Ni WeiJian; Shen AiZong; Meng XiaoMing

Title

Potential therapeutic targets and promising drugs for combating SARS-CoV-2.

Source

British Journal of Pharmacology; 2020. 177(14):3147-3161. many ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

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630

As of April 9, 2020, a novel coronavirus (SARS-CoV-2) had caused 89,931 deaths and 1,503,900 confirmed cases worldwide, which indicates an increasingly severe and uncontrollable situation. Initially, little was known about the virus. As research continues, we now know the genome structure, epidemiological and clinical characteristics, and pathogenic mechanisms of SARS-CoV-2. Based on this knowledge, potential targets involved in the processes of virus pathogenesis need to be identified, and the discovery or development of drugs based on these potential targets is the most pressing need. Here, we have summarized the potential therapeutic targets involved in virus pathogenesis and discuss the advances, possibilities, and significance of drugs based on these targets for treating SARS-CoV-2. This review will facilitate the identification of potential targets and provide clues for drug development that can be translated into clinical applications for combating SARS-CoV-2.

Publication Type

Journal article.

<638>

Accession Number

20203555076

Author

Penman, S. L.; Kiy, R. T.; Jensen, R. L.; Beoku-Betts, C.; Alfirevic, A.; Back, D.; Khoo, S. H.; Owen, A.; Pirmohamed, M.; Park, B. K.; Meng XiaoLi; Goldring, C. E.; Chadwick, A. E.

Title

Safety perspectives on presently considered drugs for the treatment of COVID-19.

Source

British Journal of Pharmacology; 2020. 177(19):4353-4374. many ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Intense efforts are underway to evaluate potential therapeutic agents for the treatment of COVID-19. In order to respond quickly to the crisis, the repurposing of existing drugs is the primary pharmacological strategy. Despite the urgent clinical need for these therapies, it is imperative to consider potential safety issues. This is important due to the harm-benefit ratios that may be encountered when treating COVID-19,

which can depend on the stage of the disease, when therapy is administered and underlying clinical factors in individual patients. Treatments are currently being trialled for a range of scenarios from prophylaxis (where benefit must greatly exceed risk) to severe life-threatening disease (where a degree of potential risk may be tolerated if it is exceeded by the potential benefit). In this perspective, we have reviewed some of the most widely researched repurposed agents in order to identify potential safety considerations using existing information in the context of COVID-19.

Publication Type

Journal article.

<639>

Accession Number

20203555017

Author

Seyed Hosseini, E.; Riahi Kashani, N.; Nikzad, H.; Azadbakht, J.; Hassani Bafrani, H.; Haddad Kashani, H.

Title

The novel coronavirus disease-2019 (COVID-19): mechanism of action, detection and recent therapeutic strategies.

Source

Virology; 2020. 551:1-9. many ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Novel coronavirus SARS-CoV-2, designated as COVID-19 by the World Health Organization (WHO) on the February 11, 2020, is one of the highly pathogenic beta-coronaviruses which infects human. Early diagnosis of COVID-19 is the most critical step to treat infection. The diagnostic tools are generally molecular methods, serology and viral culture. Recently CRISPR-based method has been investigated to diagnose and treat coronavirus infection. The emergence of 2019-nCoV during the influenza season, has led to the extensive use of antibiotics and neuraminidase enzyme inhibitors, taken orally and intravenously. Currently, antiviral inhibitors of SARS and MERS spike proteins, neuraminidase inhibitors, anti-inflammatory drugs and EK1 peptide are the available therapeutic options for SARS-CoV-2 infected individuals. In

addition, Chloroquine, which was previously used for malarial and autoimmune disease, has shown efficacy in the 2019-nCoV infection treatment. In severe hypoxaemia, a combination of antibiotics, a-interferon, lopinavir and mechanical ventilation can effectively mitigate the symptoms. Comprehensive knowledge on the innate and adaptive immune responses, will make it possible to propose potent antiviral drugs with their effective therapeutic measures for the prevention of viral infection. This therapeutic strategy will help patients worldwide to protect themselves against severe and fatal viral infections, that potentially can evolve and develop drug resistance, and to reduce mortality rates.

Publication Type

  Journal article.

<640>

Accession Number

  20203554803

Author

  Lustig, R. H.

Title

  Ultraprocessed food: addictive, toxic, and ready for regulation.

Source

  Nutrients; 2020. 12(11). 189 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  Past public health crises (e.g., tobacco, alcohol, opioids, cholera, human immunodeficiency virus (HIV)), lead, pollution, venereal disease, even coronavirus (COVID-19) have been met with interventions targeted both at the individual and all of society. While the healthcare community is very aware that the global pandemic of non-communicable diseases (NCDs) has its origins in our Western ultraprocessed food diet, society has been slow to initiate any interventions other than public education, which has been ineffective, in part due to food industry interference. This article provides the rationale for such public health interventions, by compiling the evidence that added sugar, and by proxy the ultraprocessed food category, meets the four criteria set by the public health community as necessary and sufficient for regulation-abuse,

toxicity, ubiquity, and externalities (How does your consumption affect me?). To their credit, some countries have recently heeded this science and have instituted sugar taxation policies to help ameliorate NCDs within their borders. This article also supplies scientific counters to food industry talking points, and sample intervention strategies, in order to guide both scientists and policy makers in instituting further appropriate public health measures to quell this pandemic.

Publication Type

 Journal article.

<641>

Accession Number

 20203554703

Author

 Risso, D.; Drayna, D.; Morini, G.

Title

 Alteration, reduction and taste loss: main causes and potential implications on dietary habits.

Source

 Nutrients; 2020. 12(11). 99 ref.

Publisher

 MDPI AG

Location of Publisher

 Basel

Country of Publication

 Switzerland

Abstract

 Our sense of taste arises from the sensory information generated after compounds in the oral cavity and oropharynx activate taste receptor cells situated on taste buds. This produces the perception of sweet, bitter, salty, sour, or umami stimuli, depending on the chemical nature of the tastant. Taste impairments (dysgeusia) are alterations of this normal gustatory functioning that may result in complete taste losses (ageusia), partial reductions (hypogeusia), or over-acuteness of the sense of taste (hypergeusia). Taste impairments are not life-threatening conditions, but they can cause sufficient discomfort and lead to appetite loss and changes in eating habits, with possible effects on health. Determinants of such alterations are multiple and consist of both genetic and environmental factors, including aging, exposure to chemicals, drugs, trauma, high alcohol consumption, cigarette smoking, poor oral health, malnutrition, and viral upper respiratory infections including influenza. Disturbances or loss of smell, taste, and chemesthesis have also

emerged as predominant neurological symptoms of infection by the recent Coronavirus disease 2019 (COVID-19), caused by Severe Acute Respiratory Syndrome Coronavirus strain 2 (SARS-CoV-2), as well as by previous both endemic and pandemic coronaviruses such as Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and SARS-CoV. This review is focused on the main causes of alteration, reduction, and loss of taste and their potential repercussion on dietary habits and health, with a special focus on the recently developed hypotheses regarding the mechanisms through which SARS-CoV-2 might alter taste perception.

Publication Type

Journal article.

<642>

Accession Number

20203554290

Author

Moran, N.; Gebhardt, S.; Wise, A.; Hlongwane, T.

Title

Obstetrics and gynaecology forum - COVID-19 in pregnancy : update on the disease and its management.

Source

Obstetrics and Gynaecology Forum; 2020. 30(3):7-11.

Publisher

In-House Publications

Location of Publisher

Craighall

Country of Publication

South Africa

Abstract

At the time of writing (24th August 2020), it has been over 5 months since the first case of COVID-19 was diagnosed in South Africa. Since then over 600,000 cases have been diagnosed in South Africa, of which over 13,000 have unfortunately resulted in death. The previous edition of the O+G Forum, three months ago (issue 2, 2020), included an editorial about South Africa's initial response to the COVID-19 pandemic, as well as an overview of management of obstetric patients with COVID-19. Since then the course of the pandemic has evolved and the scientific literature has been dominated by publications relating to various aspects of the pandemic and its management.

Publication Type

Journal article.

<643>

Accession Number

20203554244

Author

Mondanizadeh, M.; Hrahimi, E.; Sarmadian, H.; Jamalian, M.; Khansarinejad, B.

Title

Evaluation of SARS-CoV-2 existence in blood, urine, and rectal swab in positive patients with different virus titers.

Source

Jundishapur Journal of Microbiology; 2020. 13(8). 10 ref.

Publisher

Ahvaz Jundishapur University of Medical Sciences

Location of Publisher

Ahvaz

Country of Publication

Iran

Abstract

Background: Coronavirus disease 2019 (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Understanding the spreading routes of SARS-CoV-2 is crucial for patient management and defining biosafety strategies for public and health care workers. Objectives: In the current study, the virus shedding in the upper respiratory as well as blood, stool, and urine specimens of infected patients, was examined using quantitative real-time PCR assay (qRT-PCR). Methods: The samples of 50 positive patients with high, moderate, and low virus titers in their respiratory specimens were collected. All specimens were subjected to RNA extraction and RT-qPCR assay using two different internally-controlled test systems. Results: The results indicated that no positive results were observed in the urine samples of all patients. The viral genome was diagnosed in 5% of blood and 3.3% of rectal swab samples. The Cq (Cycle of quantification)-values of positive results on the stool and blood samples were always higher than the Cq-value of the respiratory specimen of the same patient. Conclusions: SARS-CoV-2 is mainly detected in the respiratory samples, and the virus is not detectable in the urine. The importance of viremia and the existence of the virus in feces in virus spread in the human population needs further investigation.

Publication Type

Journal article.

<644>

Accession Number

  20203553633

Author

  Wilson, M. G.; Hull, J. H.; Rogers, J.; Pollock, N.; Dodd, M.; Haines, J.; Harris, S.; Loosemore, M.; Malhotra, A.; Pieles, G.; Shah, A.; Taylor, L.; Vyas, A.; Haddad, F. S.; Sanjay Sharma

Title

  Cardiorespiratory considerations for return-to-play in elite athletes after COVID-19 infection: a practical guide for sport and exercise medicine physicians.

Source

  British Journal of Sports Medicine; 2020. 54(19):1157-1161. 29 ref.

Publisher

  BMJ Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  SARS-CoV-2 is the causative virus responsible for the COVID-19 pandemic. This pandemic has necessitated that all professional and elite sport is either suspended, postponed or cancelled altogether to minimise the risk of viral spread. As infection rates drop and quarantine restrictions are lifted, the question how athletes can safely resume competitive sport is being asked. Given the rapidly evolving knowledge base about the virus and changing governmental and public health recommendations, a precise answer to this question is fraught with complexity and nuance. Without robust data to inform policy, return-to-play (RTP) decisions are especially difficult for elite athletes on the suspicion that the COVID-19 virus could result in significant cardiorespiratory compromise in a minority of afflicted athletes. There are now consistent reports of athletes reporting persistent and residual symptoms many weeks to months after initial COVID-19 infection. These symptoms include cough, tachycardia and extreme fatigue. To support safe RTP, we provide sport and exercise medicine physicians with practical recommendations on how to exclude cardiorespiratory complications of COVID-19 in elite athletes who place high demand on their cardiorespiratory system. As new evidence emerges, guidance for a safe RTP should be updated.

Publication Type

  Journal article.

<645>

Accession Number

 20203553449

Author

 Bush, R.; Johns, F.; Ratna Acharya; Kiran Upadhyay

Title

 Mild COVID-19 in a pediatric renal transplant recipient.

Source

 American Journal of Transplantation; 2020. 20(10):2942-2945. 20 ref.

Publisher

 Wiley

Location of Publisher

 Boston

Country of Publication

 USA

Abstract

  As of mid-April 2020, the coronavirus disease of 2019 (COVID-19) pandemic has affected more than 2 million people and caused 135 000 deaths worldwide. Not much is known about the effect of this disease in immunosuppressed children with renal transplantation (RT). Here we report a 13-year-old child with multiple comorbidities who acquired COVID-19 5 years post-RT in the United States. Maintenance immunosuppression (IS) consisted of sirolimus and mycophenolate. There was no history of travel or exposure to sick contacts. The presenting features were fever, cough, rhinorrhea, and hypoxemia. Diarrhea was the only extrapulmonary manifestation. Chest X-ray was normal. He did not require intensive care unit care or ventilation. There was a transient rise in his serum creatinine without change in urine output; dialysis was not required. Slight reduction in IS was done. He had an excellent clinical recovery within 4 days and was able to be discharged home. His respiratory symptoms resolved but the diarrhea persisted during a 4-week follow-up period. This report provides a brief perspective on the short-term COVID-19 clinical course in an immunosuppressed child. More reports will add valuable information on the potential variety of spectrum of the illness in this subset of children.

Publication Type

 Journal article.

<646>

Accession Number

  20203553426

Author

  Cheang, M.; Yamashita, G. L.

Title

  Impacts of the COVID-19 pandemic on community partners in the agriculture industry in Hawai'i.

Source

  Journal of Extension; 2020. 58(5). 20 ref.

Publisher

  Extension Journal Inc

Location of Publisher

  West Lafayette

Country of Publication

  USA

Abstract

  We explored ways in which the COVID-19 pandemic has affected those who work in the agriculture industry in Hawai'i. Although economic hardship seems to be the obvious consequence, changes to the logistical and daily routines in the home also emerged as major impacts, and psychological effects may be even more distressing. Those who work in agriculture are an essential component of the agricultural and human ecologies to which land-grant universities are connected. Our findings provide valuable insights as to how Extension professionals across the United States may assist agricultural producers and farm families in their own communities at this time.

Publication Type

  Journal article.

<647>

Accession Number

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639

20203552886

Author

Seyahi, E.; Poyraz, B. C.; Sut, N.; Akdogan, S.; Hamuryudan, V.

Title

The psychological state and changes in the routine of the patients with rheumatic diseases during the coronavirus disease (COVID-19) outbreak in Turkey: a web-based cross-sectional survey.

Source

Rheumatology International; 2020. 40(8):1229-1238. 34 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

We hypothesized that patients with rheumatic diseases (RD) would have increased psychological distress during the COVID-19 outbreak; therefore, assessed their psychological symptoms and changes in their routine. A web-based questionnaire survey was conducted in a cross-sectional design in three groups of participants: (1.) patients with RD, (2.) hospital workers, and (3.) high-school teachers/academic staff. Psychiatric status was evaluated using Hospital Anxiety and Depression Scale and Impact of Event Scale-Revised scale. Overall response rate was 34.7%. We studied 771 patients with RD, 535 hospital workers, and 917 teachers/academic staff. Most of the patients with RD were unwilling to go to the hospital (86%), while 22% discontinued their medications. Biological DMARDS were the most frequent drugs whose doses were altered. Only 4% were willing to take hydroxychloroquine for protection. Moreover, the frequency of anxiety (20%), depression (43%), and post-traumatic stress (28%) among patients with RD were found to be comparable to that found among the teachers/academic staff (23%, 43% and 29%, respectively), whereas significantly less than that observed among the hospital workers (40%, 62%, and 46%, respectively) (p < 0.001). Female gender, use of social media, having a comorbid disease, or a psychiatric disorder were found to be independently associated with psychiatric symptoms in total study population. The majority of the patients were unwilling to attend outpatient visits and one-fifth skipped or stopped their immunosuppressive agents. Psychiatric symptoms in patient's and teacher's populations were of considerable clinical concern, despite being significantly lower than that observed among the hospital workers.

Publication Type

Journal article.

<648>

Accession Number

 20203552881

Author

 Gheita, T. A.; Salem, M. N.; Eesa, N. N.; Khalil, N. M.; Gamal, N. M.; Noor, R. A.; Moshrif, A. H.; El-Shereef, R.; Ismail, F.; Noshy, N.; Fawzy, R. M.; Elshebini, E.; Khalifa, I.; El-Saadany, H.; Tharwat, S.; El-Najjar, A.; Fattah, Y. A.; Sallam, R.; El-Bahnasawy, A. S.; Gharbia, O.; Hassan, E.; El-Shanawany, A.; Mohamed, E. F.; Senara, S.; Ismail, M.; Nasef, S. I.; Abdalla, A. M.; Elessawi, D.; Fawzy, S. M.; Alfadl, E. A.; Khalifa, A.; Abaza, N. M.

Title

 Rheumatologists' practice during the Coronavirus disease 2019 (COVID-19) pandemic: a survey in Egypt.

Source

 Rheumatology International; 2020. 40(10):1599-1611. 40 ref.

Publisher

 Springer-Verlag GmbH

Location of Publisher

 Berlin

Country of Publication

 Germany

Abstract

 The aim of this work is to trace how rheumatologists all over Egypt are approaching the COVID-19 pandemic and what changes it has brought about in the patients' care with special attention to its effect on vulnerable rheumatic disease (RD) patients. This survey further aims to help inform the rheumatology community about the changes in practice during the COVID-19 pandemic. The survey included 26 questions distributed to University staff members across Egypt members of the Egyptian College of Rheumatology (ECR). It takes 5-10 min to fill out. The practice setting of participating rheumatologists included University Teaching Hospitals that are the main rheumatology and clinical immunology service providers for adults and children RD patients. There was an overall agreement across the country in the responses to the survey that took a median time of 7 min to fill in. Potential changes in rheumatology outpatient practice by staff members evolved since the COVID-19 pandemic. None of the university rheumatology staff members has prescribed chloroquine or HCQ to prevent or treat COVID-19 in a non-hospitalized patient who was not previously on it. Twenty-three recommended decrease/avoid NSAIDs if the RD patient had confirmed COVID-19 or symptoms. There is an agreement to the key emerging frontline role of rheumatologists in treating COVID-19. During the pandemic, RD cases requiring admission were dealt with by several modified strategies. The overall agreement among the different university rheumatology departments during such critical situation has provoked the ECR to consider providing provisional guidelines for dealing with RD patients during this global catastrophe.

Publication Type

 Journal article.

<649>

Accession Number

 20203552852

Author

 Lobascio, F.; Caccialanza, R.; Monaco, T.; Cereda, E.; Secondino, S.; Masi, S.; Crotti, S.; Rizzo, G.; Cappello, S.; Borioli, V.; Inglardi, M.; Grugnetti, G.; Muzzi, A.; Triarico, A.; Pedrazzoli, P.; Brugnatelli, S.

Title

 Providing nutritional care to cancer patients during the COVID-19 pandemic: an Italian perspective.

Source

 Supportive Care in Cancer; 2020. 28(9):3987-3989. 19 ref.

Publisher

 Springer Berlin

Location of Publisher

 Heidelberg

Country of Publication

 Germany

Abstract

  The COVID-19 outbreak has drastically changed practices inside hospitals, which include oncology routines. In oncology, malnutrition was and certainly still is a frequent problem associated with an increase in treatment-related toxicity, a reduced response to cancer treatment, an impaired quality of life, and a worse overall prognosis. Even in this situation of healthcare crisis, nutritional support in cancer care is an essential element. During the current COVID-19 pandemic, there is a concrete high risk to see a dramatic worsening of cancer patients' nutritional status, who are left without adequate clinical and nutritional support. The consequences are already reasonably foreseeable and will have a severe negative impact after the emergency. Therefore, we believe that it is essential to try to continue, as far as possible, the activity of clinical nutrition in oncology, by revolutionizing the setting and the approach to patients. For this purpose, the Clinical Nutrition and Dietetics Unit and the Medical Oncology Unit of our hospital, one of the largest community hospital in Lombardy that has been involved in the COVID-19 outbreak management since its inception, have reorganized the clinical routine activity in strict collaboration since the very beginning of the emergency, to better face up to the challenge, while preserving cancer patients' needs.

Publication Type

 Journal article.

<650>

Accession Number

  20203552547

Author

  Trujillo-Loli, Y.; Cabrera-Pastor, A.; Puicon, L. C.

Title

  Suggestions for the management of general surgery patients during the COVID-19 health emergency. [Spanish]

Source

  Acta Medica Peruana; 2020. 37(3):382-389. 32 ref.

Publisher

  Colegio Medico del Peru

Location of Publisher

  Lima

Country of Publication

  Peru

Abstract

  The objective of this paper is to present suggestions for the preoperative, intraoperative, and postoperative management of general surgery patients during the COVID-19 health emergency, aiming to minimize risks for surgeons and to reduce in-hospital transmission of SARS-CoV-2. We reviewed the literature using the PubMed database and we also reviewed websites from international scientific societies and the Peruvian Ministry of Health website. Suggestions for the management of surgical patients are proposed, based on the experience of countries with larger numbers of COVID-19 cases. We emphasize the importance of the adequate use of personal protective equipment (PPE), and the feasibility of using an open or laparoscopy approach in emergency surgical procedures, taking adequate care in order to avoid viral transmission for both the patient and healthcare personnel. Nonetheless, we must consider that recommendations may vary with time as new knowledge is acquired.

Publication Type

  Journal article.

<651>

Accession Number

20203552545

Author

Curioso, W. H.; Galan-Rodas, E.

Title

The role of telehealth in the fight against COVID-19 and the evolution of the Peruvian regulatory framework. [Spanish]

Source

Acta Medica Peruana; 2020. 37(3):366-375. 43 ref.

Publisher

Colegio Medico del Peru

Location of Publisher

Lima

Country of Publication

Peru

Abstract

Information and communication technologies (ICT) in health play a fundamental role in the management of COVID-19. This pandemic has rediscovered telehealth and has accelerated the use of digital platforms with health-oriented services. Within the context of the COVID-19 pandemic, the Peruvian Government has issued several regulations aiming to promote its use. The objective of this paper is to discuss the role of telehealth, and the evolution of its regulatory framework in Peru. Likewise, the initiatives developed and implemented by the Peruvian College of Physicians (PCP) regarding ICT use for healthcare within the framework of COVID-19 are described, such as "Observatorio CMP" (PCP Observatory), and the technological platforms: "Alo CMP" (Hello PCP) and "Salud a un Clic" (Health in a Click). Finally, the paper analyzes some current challenges for ICT in healthcare during the COVID-19 pandemic.

Publication Type

Journal article.

<652>

Accession Number

20203552531

Author

Tenorio-Mucha, J.; Lazo-Porras, M.; Hidalgo, Alexander Monroy-; Malaga, G.; Cardenas, M. K.

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644

Title

 Prices of essential drugs for management and treatment of COVID-19 in public and private Peruvian pharmacies. [Spanish]

Source

 Acta Medica Peruana; 2020. 37(3):267-277. 31 ref.

Publisher

 Colegio Medico del Peru

Location of Publisher

 Lima

Country of Publication

 Peru

Abstract

  Objective: to compare the sale price of essential drugs used in the management and therapy of COVID-19 in public and private pharmacies in Peru. Also, to assess the cost per person of drug therapy for both mild and severe cases. Materials and methods: this is a cross-sectional study using data reported by public and private pharmacies in Peru. Drug prices are presented as median values and they were compared using the non-parametric Kruskal-Wallis test. Also, costs per person and drug accessibility for treating mild and moderate cases were estimated. Results: drugs used when treating mild cases of COVID-19, such as azythromycin, hydroxichloroquine, ivermectin, and paracetamol had median prices between S/0.04 (US$ 0.011) and S/23.81 (US$ 6.71) in public pharmacies, while the same compounds cost between S/1.00 (US$ 0.28) and S/36.00 (US$ 10.15) in private pharmacies. On average, drug prices in private pharmacies are 11 times higher compared to those in public pharmacies. Costs for (COVID-19) therapy in public pharmacies are more accessible compared to those found in private pharmacies, particularly for drugs used for more severely affected patients. Therapy regimens for mild cases require spending 1 to 4 days of the minimum daily wages, while therapy for severe cases (of COVID-19) may require up to 64 days of the minimum daily wages in private pharmacies. Conclusions: pharmacological treatment for COVID-19 represents an important expense for the public health system and for families through out-of-pocket expenses. It is urgent to design and implement regulatory measures aiming to improve the access to drug therapy (for Covid-19) in order to have drugs sold at accessible prices.

Publication Type

 Journal article.

<653>

Accession Number

 20203552388

Author

Zhang ZuLi; Hou YuLei; Li DeTao; Li FengZeng

Title

Laboratory findings of COVID-19: a systematic review and meta-analysis.

Source

Publisher

Location of Publisher

Oslo

Country of Publication

Norway

Abstract

The Coronavirus Disease (COVID-19) pandemic first broke out in December 2019 in Wuhan, China, and has now spread worldwide. Laboratory findings have been only partially described in some observational studies. To date, more comprehensive systematic reviews of laboratory findings on COVID-19 are missing. We performed a systematic review with a meta-analysis to assess laboratory findings in patients with COVID-19. Observational studies from three databases were selected. We calculated pooled proportions and 95% confidence interval (95% CI) using the random-effects model meta-analysis. A total of 1106 articles were identified from PubMed, Web of Science, CNKI (China), and other sources. After screening, 28 and 7 studies were selected for a systematic review and a meta-analysis, respectively. Of the 4,663 patients included, the most prevalent laboratory finding was increased C-reactive protein (CRP; 73.6%, 95% CI 65.0-81.3%), followed by decreased albumin (62.9%, 95% CI 28.3-91.2%), increased erythrocyte sedimentation rate (61.2%, 95% CI 41.3-81.0%), decreased eosinophils (58.4%, 95% CI 46.5-69.8%), increased interleukin-6 (53.1%, 95% CI 36.0-70.0%), lymphopenia (47.9%, 95% CI 41.6-54.9%), and increased lactate dehydrogenase (LDH; 46.2%, 95% CI 37.9-54.7%). A meta-analysis of seven studies with 1905 patients showed that increased CRP (OR 3.0, 95% CI: 2.1-4.4), lymphopenia (OR 4.5, 95% CI: 3.3-6.0), and increased LDH (OR 6.7, 95% CI: 2.4-18.9) were significantly associated with severity. These results demonstrated that more attention is warranted when interpreting laboratory findings in patients with COVID-19. Patients with elevated CRP levels, lymphopenia, or elevated LDH require proper management and, if necessary, transfer to the intensive care unit.

Publication Type

Journal article.

<654>

Accession Number

20203552343

Author

Simms, A.; Fear, N. T.; Greenberg, N.

Title

The impact of having inadequate safety equipment on mental health.

Source

Occupational Medicine (Oxford); 2020. 70(4):278-281. 18 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: Concerns are being raised about the impact of inadequate safety equipment on the mental health of healthcare workers during the COVID-19 medical response. Aims: To assess the impact of inadequate safety equipment on the mental health of service personnel deployed on operations in order to better understand the impact on those working under the similarly demanding conditions of the COVID-19 medical response. Methods: Self-report surveys were conducted in four operational environments with 3435 personnel providing data. Surveys recorded data on socio-demographic, military and operational characteristics, mental health measures and specific occupational stressors. Analysis through logistic regression explored the association between inadequate equipment and all other factors. Results: A total of 3401 personnel provided data on their perceptions of the adequacy of their equipment, of which 532 (15%) stated that they had a lot of concerns that they did not have the right equipment in working order. Analysis found significantly greater odds of reporting symptoms of common mental health disorders (CMD), 2.49 (2.03-3.06), post-traumatic stress disorder (PTSD), 2.99 (2.11-4.24), poorer global health 2.09 (1.62-2.70) and emotional problems 1.69 (1.38-2.06) when individuals reported working with inadequate equipment. Analyses remained significant when adjusted for confounding factors such as rank, sex and operational environment. Conclusions: An individual's perception of having inadequate equipment is significantly associated with symptoms of CMD, probable PTSD, poorer global health and increased reporting of emotional problems. This in turn may impact on their ability to safely carry out their duties and may have longer-term mental health consequences.

Publication Type

Journal article.

<655>

Accession Number

20203552323

Author

Pande, R. K.; Ashish Bhalla; Myatra, S. N.; Yaddanpuddi, L. N.; Sachin Gupta; Sahoo, T. K.; Ravi Prakash; Sahu, T. A.; Akansha Jain; Gopal, P. B. N.; Dhruva Chaudhry; Deepak Govil; Shubhal Dixit; Srinivas Samavedam

Title

Procedures in COVID-19 patients: part-I.

Source

Publisher

Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

New Delhi

Country of Publication

India

Abstract

The number of cases with novel coronavirus disease-2019 (COVID-19) infection is increasing every day in the world, and India contributes a substantial proportion of this burden. Critical care specialists have accepted the challenges associated with the COVID-19 pandemic and are frontline warriors in this war. They have worked hard in streamlining workflow isolation of positive patients, clinical management of critically ill patients, and infection prevention practices. With no end in sight for this pandemic, intensive care unit (ICU) practitioners, hospital administrators, and policy makers have to join hands to prepare for the surge in critical care bed capacity. In this position article, we offer several suggestions on important interventions to the ICU practitioners for better management of critically ill patients. This position article highlights key interventions for COVID-19 treatment and covers several important issues such as endotracheal intubation and tracheostomy (surgical vs PCT), nebulization, bronchoscopy, and invasive procedures such as central venous catheters, arterial lines, and HD catheters.

Publication Type

Journal article.

<656>

Accession Number

20203552322

Author

Deven Juneja; Savio, R. D.; Shrikanth Srinivasan; Pandit, R. A.; Suresh Ramasubban; Reddy, P. K.; Singh, M. K.; Gopal, P. B. N.; Dhruva Chaudhry; Deepak Govil; Dixit, S. B.; Srinivas Samavedam

Title

Basic critical care for management of COVID-19 patients: position paper of the Indian society of critical care medicine, part II.

Source

Indian Journal of Critical Care Medicine; 2020. 24(S5):S254-S262. 74 ref.

Publisher

Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

New Delhi

Country of Publication

India

Abstract

In a resource-limited country like India, rationing of scarce critical care resources might be required to ensure appropriate delivery of care to the critically ill patients suffering from COVID-19 infection. Most of these patients require critical care support because of respiratory failure or presence of multiorgan dysfunction syndrome. As there is no pharmacological therapy available, respiratory support in the form of supplemental oxygen, noninvasive ventilation, and invasive mechanical ventilation remains mainstay of care in intensive care units. As there is still dearth of direct evidence, most of the data are extrapolated from the experience gained from the management of general critical care patients.

Publication Type

Journal article.

<657>

Accession Number

20203552319

Author

Yatin Mehta; Dhruva Chaudhry; Abraham, O. C.; Jose Chacko; Jigeeshu Divatia; Bharat Jagiasi; Arindam Kar; Khilnani, G. C.; Bhuvana Krishna; Prashant Kumar; Mani, R. K.; Rao, B. K.; Singh, P. K.; Sanjeev Singh; Pavan Tiwary; Chand Wattal; Deepak Govil; Subhal Dixit; Srinivas Samavedam

Title

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649

Critical care for COVID-19 affected patients: updated position statement of the Indian society of critical care medicine.

Source

Indian Journal of Critical Care Medicine; 2020. 24(S5):S225-S230. 36 ref.

Publisher

Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

New Delhi

Country of Publication

India

Abstract

The management of coronavirus disease-2019 (COVID-19) is witnessing a change as we learn more about the pathophysiology and the severity of the disease. Several randomized controlled trials (RCTs) and meta-analysis have been published over the last few months. Several interventions and therapies which showed promise in the initial days of the pandemic have subsequently failed to show benefit in well-designed trials. Understanding of the methods of oxygen delivery and ventilation have also evolved over the past few months. The Indian Society of Critical Care Medicine (ISCCM) has reviewed the evidence that has emerged since the publication of its position statement in May and has put together an addendum of updated evidence.

Publication Type

Journal article.

<658>

Accession Number

20203552254

Author

Mon-Lopez, D.; Garcia-Aliaga, A.; Gines Bartolome, A.; Muriarte Solana, D.

Title

How has COVID-19 modified training and mood in professional and non-professional football players?

Source

Physiology & Behavior; 2020. 227. 35 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Background: Coronavirus disease 2019 (COVID-19) has restricted freedom of movement with several countries 'locked down' worldwide. During this isolation period or quarantine, habits have been modified. This might have had negative effects on physiological variables but also influenced numerous emotional aspects, especially in elite athletes, which can have a negative impact on training and sleep quality, affecting their performance. Methods: 175 Spanish professional and non-professional association football players answered an online survey about demographic and training habits, as well as two validated questionnaires to assess psychological variables (POMS and WLEIS-S). Results: The results showed that the confinement period reduced the load of training ($p < 0.01$), and modified the sleeping behaviour (both, sleep time ($p < 0.05$) and quality ($p < 0.001$)) across soccer players. Higher emotional intelligence (EI) values were positively related to training variables and strongly correlated with the mood. Interestingly, athletes' mood was affected differently depending on gender. Conclusion: We found that confinement period affects both, training load and recovery process and that mood states and EI could predict the training variables and performance of top-level football players.

Publication Type

Journal article.

<659>

Accession Number

20203551818

Author

Iglesias-Julian, E.; Lopez-Veloso, M.; De-La-Torre-Ferrera, N.; Barraza-Vengoechea, J. C.; Delgado-Lopez, P. D.; Colazo-Burlato, M.; Ubeira-Iglesias, M.; Montero-Baladia, M.; Lorenzo-Martin, A.; Minguito-De-La-Iglesia, J.; Garcia-Munoz, J. P.; Sanllorente-Sebastian, R.; Vicente-Gonzalez, B.; Aleman-Aleman, A.; Buzon-Martin, L.

Title

High dose subcutaneous anakinra to treat acute respiratory distress syndrome secondary to cytokine storm syndrome among severely ill COVID-19 patients.

Source

Journal of Autoimmunity; 2020. 115. 32 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Objective: Severely ill COVID-19 patients may end in acute respiratory distress syndrome (ARDS) and multi-organ failure. Some of them develop a systemic hyperinflammatory state produced by the massive release of inflammatory agents, known as cytokine storm syndrome (CSS). Inhibition of IL-1 by Anakinra (ANK) is a potential life-saving therapy for severe CSS cases. We propose a rationale for the use of subcutaneous ANK and review our initial experience in a small cohort of severe COVID-19 CSS patients. Methods: Retrospective cohort study of COVID-19 patients developing ARDS (PaO2/FiO2 <300) and exhibiting signs of hyperinflammation (ferritin >1000 ng/mL and/or d-dimers > 1.5 g/mL, plus IL-6 < 40 mg/mL) that received ANK. For comparison, a propensity score matched historical cohort of patients treated with IL-6 inhibitor Tocilizumab (TCZ) was used. Patients had previously received combinations of azithromycin, hydroxy-chloroquine, and methyl-prednisolone. Laboratory findings, respiratory function and adverse effects were monitored. Resolution of ARDS within the first 7 days of treatment was considered a favorable outcome. Results: Subcutaneous ANK (100 mg every 6 h) was given to 9 COVID-19 ARDS CSS patients (77.8% males). Median age was 62 years (range, 42 to 87). A TCZ cohort of 18 patients was selected by propensity score matching and treated with intravenous single dose of 600 mg for patients weighing >75 Kg, or 400 mg if < 75 Kg. Prior to treatment, median PaO2/FiO2 ratio of the ANK and TCZ cohorts were 193 and 249, respectively (p = 0.131). After 7 days of treatment, PaO2/FiO2 ratio improved in both groups to 279 (104-335) and 331 (140-476, p = 0.099) respectively. On day 7, there was significant reduction of ferritin (p = 0.046), CRP (p = 0.043), and IL-6 (p = 0.043) levels in the ANK cohort but only of CRP (p = 0.001) in the TCZ group. Favorable outcome was achieved in 55.6% and 88.9% of the ANK and TCZ cohorts, respectively (p = 0.281). Two patients that failed to respond to TCZ improved after ANK treatment. Aminotransferase levels significantly increased between day 1 and day 7 (p = 0.004) in the TCZ group. Mortality was the same in both groups (11%). There were not any opportunistic infection in the groups nor other adverse effects attributable to treatment. Conclusion: Overall, 55.6% of COVID-19 ARDS CSS patients treated with ANK exhibited favorable outcome, not inferior to a TCZ treated matched cohort. ANK may be a potential alternative to TCZ for patients with elevated aminotransferases, and may be useful in non-responders to TCZ.

Publication Type

Journal article.

<660>

Accession Number

20203551747

Author

Leist, S. R.; Dinnon, K. H., III; Schafer, A.; Tse, L. V.; Okuda, K.; Hou, Y. J.; West, A.; Edwards, C. E.; Sanders, W.; Fritch, E. J.; Gully, K. L.; Scobey, T.; Brown, A. J.; Sheahan, T. P.; Moorman, N. J.; Boucher, R. C.; Gralinski, L. E.; Montgomery, S. A.; Baric, R. S.

Title

A mouse-adapted SARS-CoV-2 induces acute lung injury and mortality in standard laboratory mice.

Source

Cell (Cambridge); 2020. 183(4):1070-1085. 76 ref.

Publisher

Cell Press

Location of Publisher

Cambridge

Country of Publication

USA

Abstract

The SARS-CoV-2 pandemic has caused extreme human suffering and economic harm. We generated and characterized a new mouse-adapted SARS-CoV-2 virus that captures multiple aspects of severe COVID-19 disease in standard laboratory mice. This SARS-CoV-2 model exhibits the spectrum of morbidity and mortality of COVID-19 disease as well as aspects of host genetics, age, cellular tropisms, elevated Th1 cytokines, and loss of surfactant expression and pulmonary function linked to pathological features of acute lung injury (ALI) and acute respiratory distress syndrome (ARDS). This model can rapidly access existing mouse resources to elucidate the role of host genetics, underlying molecular mechanisms governing SARS-CoV-2 pathogenesis, and the protective or pathogenic immune responses related to disease severity. The model promises to provide a robust platform for studies of ALI and ARDS to evaluate vaccine and antiviral drug performance, including in the most vulnerable populations (i.e., the aged) using standard laboratory mice.

Publication Type

Journal article.

<661>

Accession Number

20203551737

Author

Sedgmond, J.; Chambers, C. D.; Lawrence, N. S.; Adams, R. C.

Title

No evidence that prefrontal HD-tDCS influences cue-induced food craving.

Source

Behavioral Neuroscience; 2020. 134(5):369-383.

Publisher

American Psychological Association, Inc.

Location of Publisher

Washington DC

Country of Publication

USA

Abstract

This study investigated whether the application of high definition transcranial DC stimulation (HD-tDCS) to the dorsolateral prefrontal cortex reduces cue-induced food craving when combined with food-specific inhibitory control training. Using a within-subjects design, participants (N = 55) received both active and sham HD-tDCS across 2 sessions while completing a Go/No-Go task in which foods were either associated with response inhibition or response execution. Food craving was measured pre and post stimulation using a standardized questionnaire as well as desire to eat ratings for foods associated with both response inhibition and response execution in the training task. Results revealed no effect of HD-tDCS on reducing state food craving or desire to eat. Due to the COVID-19 pandemic, we were unable to achieve our maximum preplanned sample size or our minimum desired Bayesian evidence strength across all a priori hypotheses; however 6 of the 7 hypotheses converged with moderate or stronger evidence in favor of the null hypothesis over the alternative hypothesis. We discuss the importance of individual differences and provide recommendations for future studies with an emphasis on the importance of cognitive interventions.

Publication Type

Journal article.

<662>

Accession Number

20203551577

Author

Verd, S.; Beiro, S.; Fernandez-Bernabeu, M.; Ponce-Taylor, J.

Title

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654

Early dinner or "dinner like a pauper": evidence, the habitual time of the largest meal of the day - dinner - is predisposing to severe COVID-19 outcome - death.

Source

Publisher

Taylor & Francis

Location of Publisher

Philadelphia

Country of Publication

USA

Abstract

COVID-19 and metabolic syndrome are devastating pandemics. Effective control of metabolic parameters and their dysfunction may help prevent or minimize the acute and devastating effects of SARS-CoV-2 by reducing the local inflammatory response and blocking the entry of the virus into cells. With such consideration in mind, we gathered data from dietary surveys conducted in nine European countries to explore the relationship between actual clock hour of the large dinner meal and also interval in minutes between it and sunset in the respective countries and death rate above the median rate of per one million people as an index of mortality due to COVID-19 infection. Clock time of the dinner meal varied between 16:00 and 21:00 h across the European counties sampled, and the correlation between dinner mealtime and death rate was strongly correlated, $R = 0.7991$ (two-tailed $p = 0.0098$), with R^2 explaining 63% of the variation within the data. This strong linear positive correlation indicates that the later the clock time of the dinner meal, the higher is the death rate (and vice versa). The relationship between meal timing in reference to sunset, utilized as a gross surrogate marker of the activity/rest synchronizer of circadian rhythms, and death rate was negative and even slightly stronger, $R = -0.8025$ (two-tailed $p = 0.0092$), with R^2 explaining 64% of the variation within the data. This strong linear negative correlation indicates that the shorter the interval between the dinner meal and sunset, i.e., the closer the time of the largest meal of the day to bedtime, the greater is the death rate (and vice versa). Our preliminary approach to nighttime eating, in terms of the day's largest caloric intake, as a risk factor for the predisposing conditions of obesity, metabolic syndrome, type 2 diabetes, and other commonly associated comorbidities of being overweight, and death from COVID-19 infection reveals strong correlation with the time of the dinner meal, both in terms of its actual clock and circadian time.

Publication Type

Journal article.

<663>

Accession Number

20203551280

Author

Boileve, A.; Stoclin, A.; Barlesi, F.; Varin, F.; Suria, S.; Rieutord, A.; Blot, F.; Netzer, F.; Scotte, F.

Title

COVID-19 management in a cancer center: the ICU storm.

Source

Supportive Care in Cancer; 2020. 28(10):5037-5044. 18 ref.

Publisher

Springer Berlin

Location of Publisher

Heidelberg

Country of Publication

Germany

Abstract

A novel coronavirus, SARS-CoV-2, was first reported as a respiratory illness in December 2019 in Wuhan, China. Since then, the World Health Organization (WHO) Emergency Committee declared a global health. COVID-19 has now spread worldwide and is responsible of more than 472,216 persons, out of 9,100,090 officially diagnosed worldwide since 23 of June. In the context of cancer patients, COVID-19 has a severe impact, regarding pulmonary infection but also cancer treatments in this fragile and immunocompromised population, and ICU admission for cancer patients in the context of COVID-19 requires ethical and clinical consideration. In our cancer center, intensivists, oncologists, pharmacists, and hospital administrators had to prepare for a substantial increase in critical care bed capacity (from 10 ICU beds, 6 medical intensive care beds, and 12 surgical intensive care beds, bed capacity was increased to 28 medical intensive care beds with ventilating capacity) and to adapt infrastructure (i.e., ICU beds), supplies (i.e., drugs, ventilators, protective materials), and staff (i.e., nurses and medical staff). Overall, thirty-three COVID-19 patients were admitted in our ICU, 17 cancer-free and 16 with cancer, and 23 required mechanical ventilation, resulting in 4 deaths (of them two patients with cancer). We report here management of a dedicated intensive care unit of a cancer center during the COVID-19 infection pandemic, considering resource allocation and redistribution of healthcare workers.

Publication Type

Journal article.

<664>

Accession Number

20203551235

Author

  Tostanoski, L. H.; Wegmann, F.; Martinot, A. J.; Loos, C.; McMahan, K.; Mercado, N. B.; Yu JingYou; Chan, C. N.; Bondoc, S.; Starke, C. E.; Nekorchuk, M.; Busman-Sahay, K.; Piedra-Mora, C.; Wrijil, L. M.; Ducat, S.; Custers, J.; Atyeo, C.; Fischinger, S.; Burke, J. S.; Feldman, J.; Hauser, B. M.; Caradonna, T. M.; Bondzie, E. A.; Dagotto, G.; Gebre, M. S.; Jacob-Dolan, C.; Lin ZiJin; Mahrokhian, S. H.; Nampanya, F.; Nityanandam, R.; Pessaint, L.; Porto, M.; Ali, V.; Benetiene, D.; Tevi, K.; Andersen, H.; Lewis, M. G.; Schmidt, A. G.; Lauffenburger, D. A.; Alter, G.; Estes, J. D.; Schuitemaker, H.; Zahn, R.; Barouch, D. H.

Title

  Ad26 vaccine protects against SARS-CoV-2 severe clinical disease in hamsters.

Source

  Nature Medicine; 2020. 26(11):1694-1700. 26 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  Coronavirus disease 2019 (COVID-19) in humans is often a clinically mild illness, but some individuals develop severe pneumonia, respiratory failure and death. Studies of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in hamsters and nonhuman primates have generally reported mild clinical disease, and preclinical SARS-CoV-2 vaccine studies have demonstrated reduction of viral replication in the upper and lower respiratory tracts in nonhuman primates. Here we show that high-dose intranasal SARS-CoV-2 infection in hamsters results in severe clinical disease, including high levels of virus replication in tissues, extensive pneumonia, weight loss and mortality in a subset of animals. A single immunization with an adenovirus serotype 26 vector-based vaccine expressing a stabilized SARS-CoV-2 spike protein elicited binding and neutralizing antibody responses and protected against SARS-CoV-2-induced weight loss, pneumonia and mortality. These data demonstrate vaccine protection against SARS-CoV-2 clinical disease. This model should prove useful for preclinical studies of SARS-CoV-2 vaccines, therapeutics and pathogenesis.

Publication Type

  Journal article.

<665>

Accession Number

20203550792

Author

Bianchetti, A.; Rozzini, R.; Guerini, F.; Boffelli, S.; Ranieri, P.; Minelli, G.; Bianchetti, L.; Trabucchi, M.

Title

Clinical presentation of COVID19 in dementia patients.

Source

Journal of Nutrition, Health & Aging; 2020. 24(6):560-562. 88 ref.

Publisher

Springer

Location of Publisher

Paris

Country of Publication

France

Abstract

Objective: No studies analyzing the role of dementia as a risk factor for mortality in patients affected by COVID-19. We assessed the prevalence, clinical presentation and outcomes of dementia among subjects hospitalized for COVID19 infection. Design: Retrospective study. Setting: COVID wards in Acute Hospital in Brescia province, Northern Italy. Participants: We used data from 627 subjects admitted to Acute Medical wards with COVID 19 pneumonia. Measurements: Clinical records of each patients admitted to the hospital with a diagnosis of COVID19 infection were retrospectively analyzed. Diagnosis of dementia, modalities of onset of the COVID-19 infection, symptoms of presentation at the hospital and outcomes were recorded. Results: Dementia was diagnosed in 82 patients (13.1%). The mortality rate was 62.2% (51/82) among patients affected by dementia compared to 26.2% (143/545) in subjects without dementia ($p < 0.001$, Chi-Squared test). In a logistic regression model age, and the diagnosis of dementia resulted independently associated with a higher mortality, and patients diagnosed with dementia presented an OR of 1.84 (95% CI: 1.09-3.13, $p < 0.05$). Among patients diagnosed with dementia the most frequent symptoms of onset were delirium, especially in the hypoactive form, and worsening of the functional status. Conclusion: The diagnosis of dementia, especially in the most advanced stages, represents an important risk factor for mortality in COVID-19 patients. The clinical presentation of COVID-19 in subjects with dementia is atypical, reducing early recognition of symptoms and hospitalization.

Publication Type

Journal article.

<666>

Accession Number

20203550791

Author

Saban-Ruiz, J.; Ly-Pen, D.

Title

COVID-19: a personalized cardiometabolic approach for reducing complications and costs. the role of aging beyond topics.

Source

Publisher

Location of Publisher

Country of Publication

Abstract

COVID 19 is much more than an infectious disease by SARS-CoV-2 followed by a disproportionate immune response. An older age, diabetes and history of cardiovascular disease, especially hypertension, but also chronic heart failure and coronary artery disease among others, are between the most important risk factors. In addition, during the hospitalization both hyperglycaemia and heart failure are frequent. Less frequent are acute coronary syndrome, arrhythmias and stroke. Accordingly, not all prolonged stays or even deaths are due directly to SARS-CoV-2. To our knowledge, this is the first review, focusing both on cardiovascular and metabolic aspects of this dreadful disease, in an integrated and personalized way, following the guidelines of the Cardiometabolic Health/Medicine. Therefore, current personalized aspects such as ACEIs and ARBs, the place of statins and the most appropriate management of heart failure in diabetics are analysed. Aging, better than old age, as a dynamic process, is also considered in this review for the first time in the literature, and not only as a risk factor attributed to cardiovascular and non-cardiovascular comorbidities. Immunosenescence is also approached to build healthier elders, so they can resist present and future infectious diseases, and not only in epidemics or pandemics. In addition, to do this we must start knowing the molecular mechanisms that underlying Aging process in general, and immunosenescence in particular. Surprisingly, the endoplasmic reticulum stress and autophagy are implicated in both process. Finally, with a training in all the aspects covered in this review, not only the hospital stay, complications and costs of this frightening disease in high-risk population should be reduced. Likely, this paper will open a gate to the future for open-minded physicians.

Publication Type

Journal article.

<667>

Accession Number

  20203550787

Author

  Abdulah, D. M.; Hassan, A. B.

Title

  Relation of dietary factors with infection and mortality rates of COVID-19 across the world.

Source

  Journal of Nutrition, Health & Aging; 2020. 24(9):1011-1018. 46 ref.

Publisher

  Springer

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  Objective: Poor dietary habits are considered to be the second-leading risk factors for mortality and disability-adjusted life-years (DALYs) in the world. Dietary patterns are different based on cultural, environmental, technological, and economic factors. Nutritional deficiencies of energy, protein, and specific micronutrients have been shown to contribute to depressed immune function and increased susceptibility to infections. We aimed to explore the relation of dietary factors with global infection and mortality rates of COVID-19 in this study. Design: In the current ecological study, the countries that had national dietary data from the Global Dietary Databases of the United Nations and Coronavirus disease statistics from the World Health Organization (WHO) were included. The countries that had Coronavirus disease statistics from the WHO were consecutively checked for the recent data of the dietary factors. Setting: World. Participants: 158 countries across the world. Measurements: infection and mortality rates of COVID-19; dietary factors. Results: The median crude infection and mortality rates by COVID-19 were 87.78 (IQR: 468.03) and 0.0015 (IQR: 0.0059), respectively. The two highest percentage of the crude infection rate were between 0 and 500 (75.9%) and 500-1000 (8.9%) per one million persons. The regression analysis showed that the crude infection rate has been increased by raising consuming fruits (Beta: 0.237; P=0.006) and calcium (Beta: 0.286; P=0.007) and was decreased with rising consuming beans and legumes (Beta: -0.145; P=0.038). The analysis showed that the crude mortality rate was increased by raising consuming sugar-sweetened beverages (Beta: 0.340; P<0.001). Whereas, the crude mortality rate by COVID-19 has been decreased by increasing fruits consuming (Beta: -0.226; P=0.047) and beans and legumes (Beta: -0.176; P=0.046). Conclusion: The present study showed the higher intake of fruits and sugar-sweetened beverages had a positive effect on infection and mortally rates by COVID-19, respectively. In contrast, the higher intake of beans and legumes had a negative effect on both increasing infection and mortality rates.

Publication Type

  Journal article.

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660

<668>

Accession Number

  20203550776

Author

  Yamada, M.; Kimura, Y.; Ishiyama, D.; Otobe, Y.; Suzuki, M.; Koyama, S.; Kikuchi, T.; Kusumi, H.; Arai, H.

Title

  Effect of the COVID-19 epidemic on physical activity in community-dwelling older adults in Japan: a cross-sectional online survey.

Source

  Journal of Nutrition, Health & Aging; 2020. 24(9):948-950. 12 ref.

Publisher

  Springer

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  Objectives: The objective of this study was to investigate changes in physical activity (PA) between January (before the COVID-19 epidemic) and April (during the COVID-19 epidemic) 2020 in community-dwelling older adults in Japan. Design: Cross-sectional online survey. Setting and Subjects: From April 23 to 27, 2020, an online survey was completed by 1,600 community-dwelling older adults in Japan. Methods: We assessed the frailty status using the Kihon checklist, and other demographics and asked questions regarding PA at two time points: January and April 2020. We defined the total PA time (minutes) per week based on activity frequency and time. Results: The study participants' mean age, proportion of women, and prevalence of frailty were 74.0+or-5.6 years, 50% (n=800), and 24.3% (n=388), respectively. We found a significant decrease in total PA time in April 2020 (median [interquartile range (IQR)], 180 [0 to 420]) when compared to January 2020 (median [IQR], 245 [90 to 480]) (P < 0.001). We also performed a subgroup analysis according to the frailty category; total PA time significantly decreased in April 2020 when compared to January 2020 for all frailty categories (P < 0.001). Conclusion: In conclusion, due to the COVID-19 epidemic, the total PA time in April 2020 significantly decreased compared to that in January 2020 in older adults. This finding may lead to a higher incidence of disability in the near future in older people.

Publication Type

  Journal article.

<669>

Accession Number

  20203550775

Author

  Sepulveda-Loyola, W.; Rodriguez-Sanchez, I.; Perez-Rodriguez, P.; Ganz, F.; Torralba, R.; Oliveira, D. V.; Rodriguez-Manas, L.

Title

  Impact of social isolation due to COVID-19 on health in older people: mental and physical effects and recommendations.

Source

  Journal of Nutrition, Health & Aging; 2020. 24(9):938-947. 88 ref.

Publisher

  Springer

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  Objectives: To review the impact of social isolation during COVID-19 pandemic on mental and physical health of older people and the recommendations for patients, caregivers and health professionals. Design: Narrative review. Setting: Non-institutionalized community-living people. Participants: 20.069 individuals from ten descriptive cross-sectional papers. Measurements: Articles since 2019 to 2020 published on Pubmed, Scielo and Google Scholar databases with the following MeSh terms ('COVID-19', 'coronavirus', 'aging', 'older people', 'elderly', 'social isolation' and 'quarantine') in English, Spanish or Portuguese were included. The studies not including people over 60 were excluded. Guidelines, recommendations, and update documents from different international organizations related to mental and physical activity were also analysed. Results: 41 documents have been included in this narrative review, involving a total of 20.069 individuals (58% women), from Asia, Europe and America. 31 articles included recommendations and 10 addressed the impact of social distancing on mental or physical health. The main outcomes reported were anxiety, depression, poor sleep quality and physical inactivity during the isolation period. Cognitive strategies and increasing physical activity levels using apps, online videos, telehealth, are the main international recommendations. Conclusion: Mental and physical health in older people are negatively affected during the social distancing for COVID-19. Therefore, a multicomponent program with exercise and psychological strategies are highly recommended for this population during the confinement. Future investigations are necessary in this field.

Publication Type

  Journal article.

<670>

Accession Number

  20203550749

Author

  Flatharta, T.; Mulkerrin, E. C.

Title

  Back to basics: giant challenges to addressing Isaac's "geriatric giants" post COVID-19 crisis.

Source

  Journal of Nutrition, Health & Aging; 2020. 24(7):705-707. 16 ref.

Publisher

  Springer

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  The COVID-19 pandemic, being the greatest challenge to our healthcare system for over a century, has its greatest impact on older patients. This subgroup has higher morbidity and mortality than younger age groups. Superimposed on this, the major preventative intervention resulting in social isolation has negative consequences. Prof. Bernard Isaacs described the "Geriatric Giant Symptoms" in 1965 and encouraged the development of interventions for immobility, instability, incontinence and impaired intellect/memory with careful management of these symptoms resulting in better outcomes for older patients including reduced admissions to Nursing Homes and mortality. The author's explore the impact of the current pandemic and, most particularly its aftermath on the provision of such interventions. In the context of a major economic crisis, resources for highly effective interventions such as joint replacement surgery, urological interventions, cataract surgery will be all be limited after this crisis. Moreover delayed access to day patient services with suboptimal access to assessments for conditions such as cognitive decline and falls as well as social care will likewise militate against addressing the "Geriatric Giant Symptoms". Thus the "Founding Fathers" of Geriatric Medicine including Prof Isaacs would be justifiably concerned regarding our ability to deliver interventions to address the "Geriatric Giant Symptoms". Current leaders in geriatric medicine, healthcare workers, funders and providers as well as advocacy groups must redouble their efforts to ensure gains made in management of older patients over 2 generations are not lost in the aftermath of this pandemic.

Publication Type

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663

Journal article.

<671>

Accession Number

20203550747

Author

Azzolino, D.; Saporiti, E.; Proietti, M.; Cesari, M.

Title

Nutritional considerations in frail older patients with COVID-19.

Source

Journal of Nutrition, Health & Aging; 2020. 24(7):696-698. 37 ref.

Publisher

Springer

Location of Publisher

Paris

Country of Publication

France

Abstract

The COVID-19 pandemic is posing an unprecedented challenge to healthcare systems worldwide. Older adults, which frequently present multiple chronic comorbidities, are more susceptible to COVID-19 and experience more likely negative outcomes, in terms of disease severity and mortality. However, chronological age per se may not entirely explain the dramatic scenario described among the frailest and oldest persons. Comorbidities and functional status may indeed play a relevant role. Patients at high risk of adverse clinical outcomes in COVID-19 infection are the same at risk of malnutrition, namely older adults and multimorbid individuals. In fact, COVID-19 can negatively impact on nutritional status, both in patients admitted to the hospital with the most severe manifestations of the infection, as well as in those who experience milder/asymptomatic forms of the disease. Despite being quite difficult in these emergency circumstances, nutritional status needs to be assessed in all COVID-19 patients upon admission and during hospital stay. Early nutritional support should be guaranteed in order to improve several malnutrition-related adverse outcomes. The evaluation of the nutritional status is today even more crucial than in normal times given the delicate status of older patients with COVID-19.

Publication Type

Journal article.

<672>

Accession Number

20203550746

Author

Nestola, T.; Orlandini, L.; Beard, J. R.; Cesari, M.

Title

COVID-19 and intrinsic capacity.

Source

Journal of Nutrition, Health & Aging; 2020. 24(7):692-695. 26 ref.

Publisher

Springer

Location of Publisher

Paris

Country of Publication

France

Abstract

The SARS-CoV-2 infection is particularly associated with negative outcomes (i.e., serious disease, death) in frail older people, independently of where they live. Furthermore, the period of pandemic (with its lockdowns, social distancing, fragmentation of care...) has significantly changed the environment in which older people live. It is likely that, when the pandemic will be over, an acceleration of the aging process will be observed for many persons, independently of whether they have been infected or not by the SARS-CoV-2. The World report on ageing and health, published by the World Health Organization, proposes the concept of intrinsic capacity (i.e., the composite of all the physical and mental capacities of the individual) as central for healthy ageing. The routine assessment of biological age through constructs such as intrinsic capacity might have allowed a better understanding of the functional trajectories and vulnerabilities of the individual, even during a catastrophic event as the one we are currently living. In the present article, we describe how COVID-19 has affected the persons' intrinsic capacity, and how the wide adoption of the intrinsic capacity model may support the modernization of our systems and bring them closer to the individual.

Publication Type

Journal article.

<673>

Accession Number

  20203550745

Author

  Vellas, C.; Delobel, P.; Barreto, P. de S.; Izopet, J.

Title

  COVID-19, virology and geroscience: a perspective.

Source

  Journal of Nutrition, Health & Aging; 2020. 24(7):685-691. 75 ref.

Publisher

  Springer

Location of Publisher

  Paris

Country of Publication

  France

Abstract

  A new coronavirus, called SARS-CoV-2, was identified in Wuhan, China, in December 2019. The SARS-CoV-2 spread very rapidly, causing a global pandemic, Coronavirus Disease 2019 (COVID-19). Older adults have higher peak of viral load and, especially those with comorbidities, had higher COVID-19-related fatality rates than younger adults. In this Perspective paper, we summarize current knowledge about SARS-CoV-2 and aging, in order to understand why older people are more affected by COVID-19. We discuss about the possibility that the so-called "immunosenescence" and "inflammaging" processes, already present in a fraction of frail older adults, could allow the immune escape of SARS-CoV-2 leading to COVID-19 serious complications. Finally, we propose to use geroscience approaches to the field of COVID-19.

Publication Type

  Journal article.

<674>

Accession Number

  20203550632

Author

Lee, K. D.; Lee, S. B.; Lim, J. K.; Kang, Y. M.; Kim, I. B.; Moon, H. J.; Lee, W. J.

Title

Providing essential clinical care for non-COVID-19 patients in a Seoul metropolitan acute care hospital amidst ongoing treatment of COVID-19 patients.

Source

Journal of Hospital Infection; 2020. 106(4):673-677. 9 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

We assessed infection control efforts by comparing data collected over 20 weeks during a pandemic under a dual-track healthcare system. A decline in non-COVID-19 patients visiting the emergency department by 37.6% (P < 0.01) was observed since admitting COVID-19 cases. However, patients with acute myocardial infarction (AMI), stroke, severe trauma and acute appendicitis presenting for emergency care did not decrease. Door-to-balloon time (34.3 (+or- 11.3) min vs 22.7 (+or- 8.3) min) for AMI improved significantly (P < 0.01) while door-to-needle time (55.7 (+or- 23.9) min vs 54.0 (+or- 18.0) min) in stroke management remained steady (P=0.80). Simultaneously, time-sensitive care involving other clinical services, including patients requiring chemotherapy, radiation therapy and haemodialysis did not change.

Publication Type

Journal article.

<675>

Accession Number

20203550487

Author

Mansuy, N.

Title

Stimulating post-COVID-19 green recovery by investing in ecological restoration.

Source

  Restoration Ecology; 2020. 28(6):1343-1347.

Publisher

  Wiley

Location of Publisher

  Boston

Country of Publication

  USA

Abstract

  In the face of the global COVID-19 recession, countries are looking at stimulus packages to kick-start their stalled economies. The recovery from the COVID-19 crisis also coincides with a critical opportunity to fight against ecosystem degradation and climate change. In this opinion article, I put in perspective that by investing in ecological restoration, governments do not have to choose between economic priorities and environmental concerns. First, I describe the restoration economy and give realworld examples of how investing in restoration activities can simultaneously ease pressure on the environment and create immediate jobs and revenues. Then I suggest that to obtain political attraction, a successful restoration strategy will require a triple-bottom-line approach to ensure that in addition to environmental objectives, stakeholders integrate socioeconomic outcomes in decision-making. Finally, I conclude that a new economic approach that prioritizes investment in our ecological capital will necessitate transdisciplinary policies to build bridges across the different silos of the economy and the environment.

Publication Type

  Journal article.

<676>

Accession Number

  20203550289

Author

  Puja Dudeja; Vipra Mangla; Amarjeet Singh; Rajul Gupta

Title

  Food safety farm to fork chain in COVID-19 pandemic: challenges and solutions.

Source

  Indian Journal of Nutrition and Dietetics; 2020. 57(4):506-515. 15 ref.

Publisher

Avinashilingam Institute for Home Science and Higher Education for Women

Location of Publisher

Saibaba Colony

Country of Publication

India

Abstract

In the wake of the current COVID-19 a restraint was put on the supply of non-essential items. At the same time, provision of essential food items, health supplements, nutraceuticals, food for special dietary and special medical purpose, infant/baby food, animal feed/pet food needs to be ensured. Apart from these items, food delivery services, e-commerce, cold storage and warehousing of food products, fuel such as coal, rice husk, diesel/furnace oil and all raw materials, intermediaries, packaging materials needed to support the above list of products are required to be included in the essential list to ensure uninterrupted functioning of food supply chain. This article describes methods to ensure food safety along with prevention of COVID-19 infection while ensuring food security for all.

Publication Type

Journal article.

<677>

Accession Number

20203550262

Author

Liu GaoLi; Zhang ShaoWen; Mao ZhangFan; Wang WeiXing; Hu HaiFeng

Title

Clinical significance of nutritional risk screening for older adult patients with COVID-19.

Source

European Journal of Clinical Nutrition; 2020. 74(6):876-883. 15 ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

  Objectives: The aim of this study was to assess the nutritional risks among older patients with COVID-19 and their associated clinical outcomes using four nutritional risk screening (NRS) tools: Nutrition Risk Screening 2002 (NRS 2002), Malnutrition Universal Screening Tool (MUST), Mini Nutrition Assessment Shortcut (MNA-sf), and Nutrition Risk Index (NRI). Methods: We retrospectively analyzed the data of patients with COVID-19 older than 65 years who were treated in our hospital from January 28, 2020 to March 5, 2020, and explored the relationship between nutritional risk and clinical outcomes. Results: A total of 141 patients with COVID-19 (46 common COVID-19, 73 severe COVID-19, and 22 extremely severe COVID-19) were enrolled in the study. NRS 2002 identified 85.8% of patients as having risk, with being identified 41.1% by MUST, 77.3% by MNA-sf, and 71.6% by NRI. The agreement strength was moderate between NRS 2002 and MNA-sf, NRI, fair between MUST and MNA-sf, NRI, fair between MNA-sf and NRI, poor between NRS 2002 and MUST ($P < 0.01$). After adjustment for confounding factors in multivariate regression analysis, patients in the risk group had significantly longer LOS, higher hospital expenses (except MNA-sf), poor appetite, heavier disease severity, and more weight change(kg) than normal patients by using NRS 2002, MNA-sf, and NRI ($P < 0.05$). Conclusions: The NRS 2002, MNA-sf, and NRI are useful and practical tools with respect to screening for patients with COVID-19 who are at nutritional risk, as well as in need of additional nutritional intervention.

Publication Type

  Journal article.

<678>

Accession Number

  20203550260

Author

  Ritesh Gupta; Hussain, A.; Anoop Misra

Title

  Diabetes and COVID-19: evidence, current status and unanswered research questions.

Source

  European Journal of Clinical Nutrition; 2020. 74(6):864-870. 47 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

Patients with diabetes who get coronavirus disease 2019 (COVID-19) are at risk of a severe disease course and mortality. Several factors especially the impaired immune response, heightened inflammatory response and hypercoagulable state contribute to the increased disease severity. However, there are many contentious issues about which the evidence is rather limited. There are some theoretical concerns about the effects of different anti-hyperglycaemic drugs. Similarly, despite the recognition of angiotensin converting enzyme 2 (ACE2) as the receptor for severe acute respiratory syndrome coronavirus 2 (SARS CoV-2), and the role of ACE2 in lung injury; there are conflicting results with the use of angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARB) in these patients. Management of patients with diabetes in times of restrictions on mobility poses some challenges and novel approaches like telemedicine can be useful. There is a need to further study the natural course of COVID-19 in patients with diabetes and to understand the individual, regional and ethnic variations in disease prevalence and course.

Publication Type

Journal article.

<679>

Accession Number

20203549953

Author

Preet Lal; Aniket Prakash; Amit Kumar

Title

Google Earth Engine for concurrent flood monitoring in the lower basin of Indo-Gangetic-Brahmaputra plains.

Source

Natural Hazards; 2020. 104(2):1947-1952. 10 ref.

Publisher

Springer

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The present study focused on the recent flood inundation (July 2020) that occurred in the lower Indo-Gangetic-Brahmaputra plains (IGBP) using concurrent C-band Sentinel-1A Synthetic Aperture Radar images in Google Earth Engine. The study exhibited that a substantial proportion of IGBP (40,929 km2) was inundated primarily in Bangladesh (9.09% of the total inundation), Assam (8.99%), and Bihar (6.29%) during June-July 2020. The severe impact of flood inundation was observed in croplands (4.41% of the total cropland), followed by settlements (20.98% of the total settlements) that affected a large population (~ 10,046,262) in IGBP. The prevailing COVID-19 pandemic has debilitated the efforts of mitigation and responses to flooding risks. The study necessitates adopting an integrated, multi-hazard, multi-stakeholder approach with an emphasis on self-reliance of the community for sustenance with local resources and practices.

Publication Type

  Journal article.

<680>

Accession Number

  20203549862

Author

  Elalfy, M. M.; El-Hadidy, M. G.

Title

  Can gut microbiota modulation could reduce the signs and complications of COVID-19?

Source

  Biosciences, Biotechnology Research Asia; 2020. 17(2):209-214. 35 ref.

Publisher

  Oriental Scientific Publishing Company

Location of Publisher

  Bhopal

Country of Publication

  India

Abstract

  In recently published articles, the digestive symptoms are common in patients with COVID-19 with evidence of hepatic failure. To better understand the role of modulation of GUT microbiota to reduce the signs and complications of COVID-19 infection. Zinc and Chloroquine could potentially contribute to changes in the gut flora and in some cases could reduce clinical signs in patients suffering the COVID-19 infection. Notably, the gut microbiota of neonates could resist COVID-19 as it essential for reducing

numbers of iNKT cells in the intestine, and iNKT cells have been implicated in mediating allergic responses in the lungs. The circulating short-chain fatty acids (SCFAs), resulting from microbiota metabolism of the fiber, could have ameliorative effect to allergic inflammation in the lung that similarly occur in COVID-19 infection. Taken collectively, the modulation of gut microbiota is very important for improvement of immune system and protection against viral infection and reduction of clinical signs but further investigation is needed to study clinical available data from different global countries.

Publication Type

  Journal article.

<681>

Accession Number

  20203549790

Author

  Chang DongGune; Park JongBeom; Baek GooHyun; Kim HongJin; Bosco, A.; Hey HweeWeng [Hey, H. W. D.]; Lee ChoonKi

Title

  The impact of COVID-19 pandemic on orthopaedic resident education: a nationwide survey study in South Korea.

Source

  International Orthopaedics; 2020. 44(11):2203-2210. 23 ref.

Publisher

  Springer-Verlag GmbH

Location of Publisher

  Berlin

Country of Publication

  Germany

Abstract

  Purpose: There have not been well-designed survey studies investigating the impact of the coronavirus disease 2019 (COVID-19) pandemic on orthopaedic resident education. Methods: A 58-question, web-based survey was administered to orthopaedic residents in South Korea. A total of 229 orthopaedic residents from 43 hospitals completed the survey questionnaire. Results: The average working time of 72.7 hours/week before the pandemic was decreased to 65.6 hours/week during the pandemic (p < 0.001). The time working in the operating room was significantly decreased during the pandemic, but not in the emergency centre and outpatient clinic. The education times for lecture and clinical case discussion were

decreased during the pandemic (both, p < 0.001), respectively. While the use of traditional teaching methods was decreased, the use of online-based teaching methods was increased (p < 0.001). However, satisfaction level with online-based teaching methods was significantly lower compared with that of traditional teaching methods. The average working time exposed to the patients with COVID-19 was 9.7 hours/week. About 47.6% of orthopaedic residents experienced isolation or quarantine. The average score for quality of life, which was 68.9 out of 100 scores before the pandemic, decreased to 61.7 during the pandemic (p < 0.001). The most stressful factor for orthopaedic residents during the pandemic was family/relative health, followed by their own health and residency program. Conclusion: The COVID-19 pandemic had a significant impact on orthopaedic resident education in South Korea. Therefore, flexible and sustainable strategies are necessary to prepare for the future as well as the current pandemic situation.

Publication Type

Journal article.

<682>

Accession Number

20203549730

Author

Winkler, E. S.; Bailey, A. L.; Kafai, N. M.; Nair, S.; McCune, B. T.; Yu JinSheng; Fox, J. M.; Chen, R. E.; Earnest, J. T.; Keeler, S. P.; Ritter, J. H.; Kang Liangl; Dort, S.; Robichaud, A.; Head, R.; Holtzman, M. J.; Diamond, M. S.

Title

SARS-CoV-2 infection of human ACE2-transgenic mice causes severe lung inflammation and impaired function.

Source

Nature Immunology; 2020. 21(11):1327-1335. many ref.

Publisher

Nature Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Although animal models have been evaluated for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, none have fully recapitulated the lung disease phenotypes seen in humans who have been hospitalized. Here, we evaluate transgenic mice expressing the human angiotensin I-converting enzyme 2 (ACE2) receptor driven by the cytokeratin-18 (K18) gene promoter (K18-hACE2) as a model of SARS-CoV-2 infection. Intranasal inoculation of SARS-CoV-2 in K18-hACE2 mice results in high levels of viral infection in lungs, with spread to other organs. A decline in pulmonary function occurs 4 days after peak viral titer and correlates with infiltration of monocytes, neutrophils and activated T cells. SARS-CoV-2-infected lung tissues show a massively upregulated innate immune response with signatures of nuclear factor-B-dependent, type I and II interferon signaling, and leukocyte activation pathways. Thus, the K18-hACE2 model of SARS-CoV-2 infection shares many features of severe COVID-19 infection and can be used to define the basis of lung disease and test immune and antiviral-based countermeasures.

Publication Type

Journal article.

<683>

Accession Number

20203549728

Author

Mo HongNan; Liu BinLiang; Ma Fei

Title

Appropriate arrangement of cancer treatment after COVID-19 epidemic peaks in China.

Source

Journal of Cancer Research and Clinical Oncology; 2020. 146(10):2717-2718. 4 ref.

Publisher

Springer-Verlag GmbH

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

Purpose: COVID-19 is causing a lot of problems in health services around the world, especially in medical institutions receiving cancer patients. On March 12, China's National Health Commission announced that the peak of the COVID-19 epidemic has passed in China. Thus, a proper arrangement of medication, surgery and radiotherapy for patients with cancer is of vital importance after the epidemic peak. Methods: A range

of measures have been implemented in our center. Specific patients take priority for chemotherapy treatment. The amount of semi-elective and elective surgeries could be gradually increased beyond urgent and emergency surgery. The hypofractionated radiotherapy is recommended in the right circumstances. Results: On March 13, our center announced that more than 5000 visits of chemotherapy and radiotherapy are arranged in our outpatient clinics and none of our patients and staffs have been diagnosed with COVID-19 as of March 28, 2020. Conclusion: The rational arrangement we make now may be helpful to the future restoration of cancer treatments in other countries.

Publication Type

  Correspondence.

<684>

Accession Number

  20203549723

Author

  Riederer, P.; Meulen, V. ter

Title

  Coronaviruses: a challenge of today and a call for extended human postmortem brain analyses.

Source

  Journal of Neural Transmission; 2020. 127(9):1217-1228. many ref.

Publisher

  Springer-Wien

Location of Publisher

  Vienna

Country of Publication

  Austria

Abstract

  While there is abounding literature on virus-induced pathology in general and coronavirus in particular, recent evidence accumulates showing distinct and deleterious brain affection. As the respiratory tract connects to the brain without protection of the blood-brain barrier, SARS-CoV-2 might in the early invasive phase attack the cardiorespiratory centres located in the medulla/pons areas, giving rise to disturbances of respiration and cardiac problems. Furthermore, brainstem regions are at risk to lose their functional integrity. Therefore, long-term neurological as well as psychiatric symptomatology and eventual respective disorders cannot be excluded as evidenced from influenza-A triggered post-encephalitic Parkinsonism and HIV-1 triggered AIDS-dementia complex. From the available evidences for coronavirus-induced brain

pathology, this review concludes a number of unmet needs for further research strategies like human postmortem brain analyses. SARS-CoV-2 mirroring experimental animal brain studies, characterization of time-dependent and region-dependent spreading behaviours of coronaviruses, enlightening of pathological mechanisms after coronavirus infection using long-term animal models and clinical observations of patients having had COVID-19 infection are calling to develop both protective strategies and drug discoveries to avoid early and late coronavirus-induced functional brain disturbances, symptoms and eventually disorders. To fight SARS-CoV-2, it is an urgent need to enforce clinical, molecular biological, neurochemical and genetic research including brain-related studies on a worldwide harmonized basis.

Publication Type

  Journal article.

<685>

Accession Number

  20203549673

Author

  Mradul Mohan; Cherian, J. J.; Amit Sharma

Title

  Exploring links between vitamin D deficiency and COVID-19.

Source

  PLoS Pathogens; 2020. 16(9). 35 ref.

Publisher

  Public Library of Sciences (PLoS)

Location of Publisher

  San Francisco

Country of Publication

  USA

Abstract

  Coronavirus Disease 2019 (COVID-19) pandemic remains a major public health threat in most countries. The causative severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus can lead to acute respiratory distress syndrome and result in mortality in COVID-19 patients. Vitamin D is an immunomodulator hormone with established effectiveness against various upper respiratory infections. Vitamin D can stall hyper-inflammatory responses and expedite healing process of the affected areas, primarily in the lung tissue. Thus, there are ecological and mechanistic reasons to promote exploration of vitamin D action in COVID-19 patients. As no curative drugs are available currently for COVID-19, we feel

that the potential of vitamin D to alter the course of disease severity needs to be investigated. Clinical studies may be undertaken to address the value of vitamin D supplementation in deficient, high-risk COVID-19 patients.

Publication Type

Journal article.

<686>

Accession Number

20203549670

Author

Hartman, A. L.; Nambulli, S.; McMillen, C. M.; White, A. G.; Tilston-Lunel, N. L.; Albe, J. R.; Cottle, E.; Dunn, M. D.; Frye, L. J.; Gilliland, T. H.; Olsen, E. L.; O'Malley, K. J.; Schwarz, M. M.; Tomko, J. A.; Walker, R. C.; Xia, M.; Hartman, M. S.; Klein, E.; Scanga, C. A.; Flynn, J. L.; Klimstra, W. B.; McElroy, A. K.; Reed, D. S.; Duprex, W. P.

Title

SARS-CoV-2 infection of African green monkeys results in mild respiratory disease discernible by PET/CT imaging and shedding of infectious virus from both respiratory and gastrointestinal tracts.

Source

PLoS Pathogens; 2020. 16(9). 45 ref.

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

Vaccines are urgently needed to combat the global coronavirus disease 2019 (COVID-19) pandemic, and testing of candidate vaccines in an appropriate non-human primate (NHP) model is a critical step in the process. Infection of African green monkeys (AGM) with a low passage human isolate of SARS-CoV-2 by aerosol or mucosal exposure resulted in mild clinical infection with a transient decrease in lung tidal volume. Imaging with human clinical-grade 18F-fluoro-2-deoxy-D-glucose positron emission tomography (18F-FDG PET) co-registered with computed tomography (CT) revealed pulmonary lesions at 4 days post-infection (dpi) that resolved over time. Infectious virus was shed from both respiratory and gastrointestinal (GI) tracts in all animals in a biphasic manner, first between 2-7 dpi followed by a recrudescence at 14-21

dpi. Viral RNA (vRNA) was found throughout both respiratory and gastrointestinal systems at necropsy with higher levels of vRNA found within the GI tract tissues. All animals seroconverted simultaneously for IgM and IgG, which has also been documented in human COVID-19 cases. Young AGM represent an species to study mild/subclinical COVID-19 disease and with possible insights into live virus shedding. Future vaccine evaluation can be performed in AGM with correlates of efficacy being lung lesions by PET/CT, virus shedding, and tissue viral load.

Publication Type

Journal article.

<687>

Accession Number

20203549544

Author

Guisado-Gil, A. B.; Infante-Dominguez, C.; Penalva, G.; Praena, J.; Roca, C.; Navarro-Amuedo, M. D.; Aguilar-Guisado, M.; Espinosa-Aguilera, N.; Poyato-Borrego, M.; Romero-Rodriguez, N.; Aldabo, T.; Salto-Alejandre, S.; Pipaon, M. R. P. de; Lepe, J. A.; Martin-Gutierrez, G.; Gil-Navarro, M. V.; Molina, J.; Pachon, J.; Cisneros, J. M.

Title

Impact of the COVID-19 pandemic on antimicrobial consumption and hospital-acquired candidemia and multidrug-resistant bloodstream infections.

Source

Antibiotics; 2020. 9(11). 38 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

During the COVID-19 pandemic, the implementation of antimicrobial stewardship strategies has been recommended. This study aimed to assess the impact of the COVID-19 pandemic in a tertiary care Spanish hospital with an active ongoing antimicrobial stewardship program (ASP). For a 20-week period, we weekly assessed antimicrobial consumption, incidence density, and crude death rate per 1000 occupied bed days of candidemia and multidrug-resistant (MDR) bacterial bloodstream infections (BSI).We conducted a

segmented regression analysis of time series. Antimicrobial consumption increased +3.5% per week (p = 0.016) for six weeks after the national lockdown, followed by a sustained weekly reduction of -6.4% (p = 0.001). The global trend for the whole period was stable. The frequency of empirical treatment of patients with COVID-19 was 33.7%. No change in the global trend of incidence of hospital-acquired candidemia and MDR bacterial BSI was observed (+0.5% weekly; p = 0.816), nor differences in 14 and 30-day crude death rates (p = 0.653 and p = 0.732, respectively). Our work provides quantitative data about the pandemic effect on antimicrobial consumption and clinical outcomes in a centre with an active ongoing institutional and education-based ASP. However, assessing the long-term impact of the COVID-19 pandemic on antimicrobial resistance is required.

Publication Type

  Journal article.

<688>

Accession Number

  20203549253

Author

  McGinlay, J.; Gkoumas, V.; Holtvoeth, J.; Armas Fuertes, R. F.; Bazhenova, E.; Benzoni, A.; Botsch, K.; Cabrera Martel, C.; Carrillo Sanchez, C.; Cervera, I.; Chaminade, G.; Doerstel, J.; Fagundo Garcia, C. J.; Jones, A.; Lammertz, M.; Lotman, K.; Odar, M.; Teresa Pastor; Carol Ritchie; Santi, S.; Smolej, M.; Soriano Rico, F.; Waterman, H.; Zwijacz-Kozica, T.; Kontoleon, A.; Dimitrakopoulos, P. G.; Jones, N.

Title

  The impact of COVID-19 on the management of European protected areas and policy implications.

Source

  Forests; 2020. 11(11). 67 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  The COVID-19 pandemic led to many European countries imposing lockdown measures and limiting people's movement during spring 2020. During the summer 2020, these strict lockdown measures were gradually lifted while in autumn 2020, local restrictions started to be re-introduced as a second wave

emerged. After initial restrictions on visitors accessing many Nature Protected Areas (PAs) in Europe, management authorities have had to introduce measures so that all users can safely visit these protected landscapes. In this paper, we examine the challenges that emerged due to COVID-19 for PAs and their deeper causes. By considering the impact on and response of 14 popular European National and Nature Parks, we propose tentative longer-term solutions going beyond the current short-term measures that have been implemented. The most important challenges identified in our study were overcrowding, a new profile of visitors, problematic behavior, and conflicts between different user groups. A number of new measures have been introduced to tackle these challenges including information campaigns, traffic management, and establishing one-way systems on trail paths. However, measures to safeguard public health are often in conflict with other PA management measures aiming to minimize disturbance of wildlife and ecosystems. We highlight three areas in which management of PAs can learn from the experience of this pandemic: managing visitor numbers in order to avoid overcrowding through careful spatial planning, introducing educational campaigns, particularly targeting a new profile of visitors, and promoting sustainable tourism models, which do not rely on large visitor numbers.

Publication Type

 Journal article.

<689>

Accession Number

 20203549064

Author

 Yee, J. L.; Rompay, K. K. A. van; Carpenter, A. B.; Nham, P. B.; Halley, B. M.; Iyer, S. S.; Hartigan-O'Connor, D. J.; Miller, C. J.; Roberts, J. A.

Title

 SARS-CoV-2 surveillance for a non-human primate breeding research facility.

Source

 Journal of Medical Primatology; 2020. 49(6):322-331. 35 ref.

Publisher

 Wiley

Location of Publisher

 Copenhagen

Country of Publication

 Denmark

Abstract

Background: The emergence of SARS-CoV-2 and the ensuing COVID-19 pandemic prompted the need for a surveillance program to determine the viral status of the California National Primate Research Center non-human primate breeding colony, both for reasons of maintaining colony health and minimizing the risk of interference in COVID-19 and other research studies. Methods: We collected biological samples from 10% of the rhesus macaque population for systematic testing to detect SARS-CoV-2 virus by RT-PCR and host antibody response by ELISA. Testing required the development and validation of new assays and an algorithm using in laboratory-developed and commercially available reagents and protocols. Results: and Conclusions: No SARS-CoV-2 RNA or antibody was detected in this study; therefore, we have proposed a modified testing algorithm for sentinel surveillance to monitor for any future transmissions. As additional reagents and controls become available, assay development and validation will continue, leading to the enhanced sensitivity, specificity, accuracy, and efficiency of testing.

Publication Type

Journal article.

<690>

Accession Number

20203548988

Author

Tripathi, P. K.; Saurabh Upadhyay; Manju Singh; Siva Raghavendhar; Mohit Bhardwaj; Pradeep Sharma; Patel, A. K.

Title

Screening and evaluation of approved drugs as inhibitors of main protease of SARS-CoV-2.

Source

International Journal of Biological Macromolecules; 2020. 164:2622-2631. 49 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The COVID-19 pandemic caused by SARS-CoV-2 has emerged as a global catastrophe. The virus requires main protease for processing the viral polyproteins PP1A and PP1AB translated from the viral RNA. In search of a quick, safe and successful therapeutic agent; we screened various clinically approved drugs for

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the in-vitro inhibitory effect on 3CLPro which may be able to halt virus replication. The methods used includes protease activity assay, fluorescence quenching, surface plasmon resonance (SPR), ThermofluorR Assay, Size exclusion chromatography and in-silico docking studies. We found that Teicoplanin as most effective drug with IC50 - 1.5 M. Additionally, through fluorescence quenching Stern-Volmer quenching constant (KSV) for Teicoplanin was estimated as 2.5×10^5 L.mol-1, which suggests a relatively high affinity between Teicoplanin and 3CLPro protease. The SPR shows good interaction between Teicoplanin and 3CLPro with KD ~ 1.6 M. Our results provide critical insights into the mechanism of action of Teicoplanin as a potential therapeutic against COVID-19. We found that Teicoplanin is about 10-20 fold more potent in inhibiting protease activity than other drugs in use, such as lopinavir, hydroxychloroquine, chloroquine, azithromycin, atazanavir etc. Therefore, Teicoplanin emerged as the best inhibitor among all drug molecules we screened against 3CLPro of SARS-CoV-2.

Publication Type

  Journal article.

<691>

Accession Number

  20203548962

Author

  Abian, O.; Ortega-Alarcon, D.; Jimenez-Alesanco, A.; Ceballos-Laita, L.; Vega, S.; Reyburn, H. T.; Rizzuti, B.; Velazquez-Campoy, A.

Title

  Structural stability of SARS-CoV-2 3CLpro and identification of quercetin as an inhibitor by experimental screening.

Source

  International Journal of Biological Macromolecules; 2020. 164:1693-1703. 51 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  The global health emergency generated by coronavirus disease 2019 (COVID-19) has prompted the search for preventive and therapeutic treatments for its pathogen, the severe acute respiratory syndrome

coronavirus 2 (SARS-CoV-2). There are many potential targets for drug discovery and development to tackle this disease. One of these targets is the main protease, Mpro or 3CLpro, which is highly conserved among coronaviruses. 3CLpro is an essential player in the viral replication cycle, processing the large viral polyproteins and rendering the individual proteins functional. We report a biophysical characterization of the structural stability and the catalytic activity of 3CLpro from SARS-CoV-2, from which a suitable experimental in vitro molecular screening procedure has been designed. By screening of a small chemical library consisting of about 150 compounds, the natural product quercetin was identified as reasonably potent inhibitor of SARS-CoV-2 3CLpro (Ki ~ 7 M). Quercetin could be shown to interact with 3CLpro using biophysical techniques and bind to the active site in molecular simulations. Quercetin, with well-known pharmacokinetic and ADMET properties, can be considered as a good candidate for further optimization and development, or repositioned for COVID-19 therapeutic treatment.

Publication Type

  Journal article.

<692>

Accession Number

  20203548907

Author

  Chen XiangYan; Han WenWei; Wang GuiXiang; Zhao Xia

Title

  Application prospect of polysaccharides in the development of anti-novel coronavirus drugs and vaccines.

Source

  International Journal of Biological Macromolecules; 2020. 164:331-343. 135 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Since the outbreak of the novel coronavirus disease COVID-19, caused by the SARS-CoV-2 virus, it has spread rapidly worldwide and poses a great threat to public health. This is the third serious coronavirus outbreak in <20 years, following SARS in 2002-2003 and MERS in 2012. So far, there are almost no specific clinically effective drugs and vaccines available for COVID-19. Polysaccharides with good safety, immune

regulation and antiviral activity have broad application prospects in anti-virus, especially in anti-coronavirus applications. Here, we reviewed the antiviral mechanisms of some polysaccharides, such as glycosaminoglycans, marine polysaccharides, traditional Chinese medicine polysaccharides, and their application progress in anti-coronavirus. In particular, the application prospects of polysaccharide-based vaccine adjuvants, nanomaterials and drug delivery systems in the fight against novel coronavirus were also analyzed and summarized. Additionally, we speculate the possible mechanisms of polysaccharides anti-SARS-CoV-2, and propose the strategy of loading S or N protein from coronavirus onto polysaccharide capped gold nanoparticles vaccine for COVID-19 treatment. This review may provide a new approach for the development of COVID-19 therapeutic agents and vaccines.

Publication Type

  Journal article.

<693>

Accession Number

  20203548760

Author

  Perisic, O.

Title

  Recognition of potential COVID-19 drug treatments through the study of existing protein-drug and protein-protein structures: an analysis of kinetically active residues.

Source

  Biomolecules; 2020. 10(9). 87 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

  We report the results of our in silico study of approved drugs as potential treatments for COVID-19. The study is based on the analysis of normal modes of proteins. The drugs studied include chloroquine, ivermectin, remdesivir, sofosbuvir, boceprevir, and a-difluoromethylornithine (DMFO). We applied the tools we developed and standard tools used in the structural biology community. Our results indicate that small molecules selectively bind to stable, kinetically active residues and residues adjoining them on the

surface of proteins and inside protein pockets, and that some prefer hydrophobic sites over other active sites. Our approach is not restricted to viruses and can facilitate rational drug design, as well as improve our understanding of molecular interactions, in general.

Publication Type

  Journal article.

<694>

Accession Number

  20203548498

Author

  Vogler, S.; Fischer, S.

Title

  How to address medicines shortages: findings from a cross-sectional study of 24 countries.

Source

  Health Policy; 2020. 124(12):1287-1296. 50 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Shortages of medicines have become a major public health challenge. The aim of this study was to survey national measures to manage and combat these shortages. A questionnaire survey was conducted with public authorities involved in the Pharmaceutical Pricing and Reimbursement Information (PPRI) network. Responses relating to measures as of March/April 2020 were received from 24 countries (22 European countries, Canada and Israel). In 20 countries, manufacturers are requested to notify - usually on an obligatory basis - upcoming and existing shortages, which are recorded in a register. Further measures include a regular dialogue with relevant stakeholders (18 countries), financial sanctions for manufacturers in cases of non-supply and/or non-compliance with reporting or stocking requirements (15 countries) and simplified regulatory procedures (20 countries). For defined medicines, supply reserves have been established (14 countries), and legal provisions allow the issuing of export bans (10 countries). Some measures have been introduced since the end of 2019 and countries are planning and discussing further action. While governments reacted by taking national measures, the COVID-19 crisis might serve as an

opportunity to join forces in cross-country collaboration and develop joint (e.g. European) solutions to address the shortage issue in a sustainable manner. A practical first step could be to work on a harmonisation of the national registers.

Publication Type

  Journal article.

<695>

Accession Number

  20203548297

Author

  Jang Hyesun; Ross, T. M.

Title

  Dried SARS-CoV-2 virus maintains infectivity to Vero E6 cells for up to 48 h.

Source

  Veterinary Microbiology; 2020. 251. 9 ref.

Publisher

  Elsevier B.V.

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

  Severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) is a great concern on both public and veterinary health. Multiple studies showed that the SARS-CoV-2 can persist for few days in wet condition, but it has not been clear whether the virus can maintain the infectivity in dry condition. Thus, we measured the infectious titer of dried SARS-CoV-2 (104 pfu/25 L droplet) at 0, 0.5, 1, 2, 3, 24, and 48 h. Strikingly, the dried SARS-CoV-2 virus did not lose the infectivity to Vero E6 cells for up to 48 h. Our findings warrants that the drying cannot replace the surface disinfection to prevent transmission via common vehicle or nosocomial infection. Future studies can apply our experimental setting to test the efficacy of diverse disinfecting procedures.

Publication Type

  Journal article.

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687

<696>

Accession Number

  20203548240

Author

  Stavropoulou, E.; Bezirtzoglou, E.

Title

  Probiotics in medicine: a long debate.

Source

  Frontiers in Immunology; 2020. 11(September). 234 ref.

Publisher

  Frontiers Media S.A.

Location of Publisher

  Lausanne

Country of Publication

  Switzerland

Abstract

  During the last years probiotics gained the attention of clinicians for their use in the prevention and treatment of multiple diseases. Probiotics main mechanisms of action include enhanced mucosal barrier function, direct antagonism with pathogens, inhibition of bacterial adherence and invasion capacity in the intestinal epithelium, boosting of the immune system and regulation of the central nervous system. It is accepted that there is a mutual communication between the gut microbiota and the liver, the so-called microbiota-gut-liver axis as well as a reciprocal communication between the intestinal microbiota and the central nervous system through the microbiota-gut-brain axis. Moreover, recently the gut-lung axis in bacterial and viral infections is considerably discussed for bacterial and viral infections, as the intestinal microbiota amplifies the alveolar macrophage activity having a protective role in the host defense against pneumonia. The importance of the normal human intestinal microbiota is recognized in the preservation of health. Disease states such as, infections, autoimmune conditions, allergy and other may occur when the intestinal balance is disturbed. Probiotics seem to be a promising approach to prevent and even reduce the symptoms of such clinical states as an adjuvant therapy by preserving the balance of the normal intestinal microbiota and improving the immune system. The present review states globally all different disorders in which probiotics can be given. To date, Stronger data in favor of their clinical use are provided in the prevention of gastrointestinal disorders, antibiotic-associated diarrhea, allergy and respiratory infections. We hereby discuss the role of probiotics in the reduction of the respiratory infection symptoms and we focus on the possibility to use them as an adjuvant to the therapeutic approach of the pandemic COVID-19. Nevertheless, it is accepted by the scientific community that more clinical studies should be undertaken in large samples of diseased populations so that the assessment of their therapeutic potential provide us with strong evidence for their efficacy and safety in clinical use.

Publication Type

 Journal article.

<697>

Accession Number

 20203548235

Author

 Trovato, M.; Sartorius, R.; D'Apice, L.; Manco, R.; Berardinis, P. de

Title

 Viral emerging diseases: challenges in developing vaccination strategies.

Source

 Frontiers in Immunology; 2020. 11(September). 228 ref.

Publisher

 Frontiers Media S.A.

Location of Publisher

 Lausanne

Country of Publication

 Switzerland

Abstract

 In the last decades, a number of infectious viruses have emerged from wildlife or re-emerged, generating serious threats to the global health and to the economy worldwide. Ebola and Marburg hemorrhagic fevers, Lassa fever, Dengue fever, Yellow fever, West Nile fever, Zika, and Chikungunya vector-borne diseases, Swine flu, Severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), and the recent Coronavirus disease 2019 (COVID-19) are examples of zoonoses that have spread throughout the globe with such a significant impact on public health that the scientific community has been called for a rapid intervention in preventing and treating emerging infections. Vaccination is probably the most effective tool in helping the immune system to activate protective responses against pathogens, reducing morbidity and mortality, as proven by historical records. Under health emergency conditions, new and alternative approaches in vaccine design and development are imperative for a rapid and massive vaccination coverage, to manage a disease outbreak and curtail the epidemic spread. This review gives an update on the current vaccination strategies for some of the emerging/re-emerging viruses, and discusses challenges and hurdles to overcome for developing efficacious vaccines against future pathogens.

Publication Type

 Journal article.

<698>

Accession Number

  20203548215

Author

  Beeraka, N. M.; Sadhu, S. P.; Madhunapantula, S. V.; Pragada, R. R.; Svistunov, A. A.; Nikolenko, V. N.; Mikhaleva, L. M.; Aliev, G.

Title

  Strategies for targeting SARS CoV-2: small molecule inhibitors-the current status.

Source

  Frontiers in Immunology; 2020. 11(September). 222 ref.

Publisher

  Frontiers Media S.A.

Location of Publisher

  Lausanne

Country of Publication

  Switzerland

Abstract

  Severe Acute Respiratory Syndrome-Corona Virus-2 (SARS-CoV-2) induced Coronavirus Disease - 19 (COVID-19) cases have been increasing at an alarming rate (7.4 million positive cases as on June 11 2020), causing high mortality (4,17,956 deaths as on June 11 2020) and economic loss (a 3.2% shrink in global economy in 2020) across 212 countries globally. The clinical manifestations of this disease are pneumonia, lung injury, inflammation, and severe acute respiratory syndrome (SARS). Currently, there is no vaccine or effective pharmacological agents available for the prevention/treatment of SARS-CoV2 infections. Moreover, development of a suitable vaccine is a challenging task due to antibody-dependent enhancement (ADE) and Th-2 immunopathology, which aggravates infection with SARS-CoV-2. Furthermore, the emerging SARS-CoV-2 strain exhibits several distinct genomic and structural patterns compared to other coronavirus strains, making the development of a suitable vaccine even more difficult. Therefore, the identification of novel small molecule inhibitors (NSMIs) that can interfere with viral entry or viral propagation is of special interest and is vital in managing already infected cases. SARS-CoV-2 infection is mediated by the binding of viral Spike proteins (S-protein) to human cells through a 2-step process, which involves Angiotensin Converting Enzyme-2 (ACE2) and Transmembrane Serine Protease (TMPRSS)-2. Therefore, the development of novel inhibitors of ACE2/TMPRSS2 is likely to be beneficial in combating SARS-CoV-2 infections. However, the usage of ACE-2 inhibitors to block the SARS-CoV-2 viral entry requires additional studies as there are conflicting findings and severe health complications reported for these inhibitors in patients. Hence, the current interest is shifted toward the development of NSMIs, which

includes natural antiviral phytochemicals and Nrf-2 activators to manage a SARS-CoV-2 infection. It is imperative to investigate the efficacy of existing antiviral phytochemicals and Nrf-2 activators to mitigate the SARS-CoV-2-mediated oxidative stress. Therefore, in this review, we have reviewed structural features of SARS-CoV-2 with special emphasis on key molecular targets and their known modulators that can be considered for the development of NSMIs.

Publication Type

  Journal article.

<699>

Accession Number

  20203548212

Author

  Alberca, R. W.; Teixeira, F. M. E.; Beserra, D. R.; Oliveira, E. A. de; Souza Andrade, M. M. de; Pietrobon, A. J.; Sato, M. N.

Title

  The potential effects of naringenin in COVID-19.

Source

  Frontiers in Immunology; 2020. 11(September). 121 ref.

Publisher

  Frontiers Media S.A.

Location of Publisher

  Lausanne

Country of Publication

  Switzerland

Abstract

  Coronavirus disease 2019 (COVID-19), caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), was declared a pandemic by the World Health Organization in March 2020. Severe COVID-19 cases develop severe acute respiratory syndrome, which can result in multiple organ failure, sepsis, and death. The higher risk group includes the elderly and subjects with pre-existing chronic illnesses such as obesity, hypertension, and diabetes. To date, no specific treatment or vaccine is available for COVID-19. Among many compounds, naringenin (NAR) a flavonoid present in citrus fruits has been investigated for antiviral and anti-inflammatory properties like reducing viral replication and cytokine production. In this perspective, we summarize NAR potential anti-inflammatory role in COVID-19 associated risk factors and SARS-CoV-2 infection.

Publication Type

 Journal article.

<700>

Accession Number

 20203548208

Author

 Khatri, I.; Staal, F. J. T.; Dongen, J. J. M. van

Title

 Blocking of the high-affinity interaction-synapse between SARS-CoV-2 spike and human ACE2 proteins likely requires multiple high-affinity antibodies: an immune perspective.

Source

 Frontiers in Immunology; 2020. 11(September). 69 ref.

Publisher

 Frontiers Media S.A.

Location of Publisher

 Lausanne

Country of Publication

 Switzerland

Abstract

  The pandemic of Coronavirus Disease 2019 (COVID-19) caused by SARS-CoV-2 has induced global eagerness to develop vaccines and therapeutics for treating COVID-19, including neutralizing antibodies. To develop effective therapeutic antibodies against SARS-CoV-2, it is critical to understand the interaction between viral and host's proteins. The human ACE2 (hACE2) protein is the crucial target for the SARS-CoV's Spike protein that allows the virus to adhere to host epithelial cells. X-ray crystal structures and biophysical properties of protein-protein interactions reveal a large interaction surface with high binding-affinity between SARS-CoV-2 and hACE2 (18 interactions), at least 15-fold stronger than between SARS-CoV-1 and hACE2 (eight interactions). This suggests that antibodies against CoV-1 infection might not be very efficient against CoV-2. Furthermore, interspecies comparisons indicate that ACE2 proteins of man and cat are far closer than dog, ferret, mouse, and rat with significant differences in binding-affinity between Spike and ACE2 proteins. This strengthens the notion of productive SARS-CoV-2 transmission between felines and humans and that classical animal models are not optimally suited for evaluating therapeutic antibodies. The large interaction surface with strong affinity between SARS-CoV-2 and hACE2 (dG-12.4) poses a huge challenge to develop reliable antibody therapy that truly blocks SARS-CoV-2 adherence and infection. We gauge that single antibodies against single epitopes might not sufficiently interfere with the strong

interaction-synapse between Spike and hACE2 proteins. Instead, appropriate combinations of high-affinity neutralizing antibodies against different epitopes might be needed, preferably of IgA-class for optimal and prolonged activity at epithelial layers of respiratory and intestine tracts.

Publication Type

Journal article.

<701>

Accession Number

20203548142

Author

Yilmaz, K.; Gozupirinccioglu, A.; Aktar, F.; Akin, A.; Karabel, M.; Yolbas, I.; Uzel, V. H.; Sen, V.

Title

Evaluation of the novel coronavirus disease in Turkish children: preliminary outcomes.

Source

Pediatric Pulmonology; 2020. 55(12):3587-3594. 36 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Background: The novel coronavirus disease (Covid-19) can progress with mild to moderate or self-limiting clinical findings in children. The aim of this study was to investigate the disease features of Covid-19 in Turkish children. Methods: Children diagnosed by the method of real-time reverse transcription-polymerase chain reaction for Covid-19 at the Dicle University Department of Pediatric, between April and June 2020, were evaluated. Hospital records were investigated retrospectively. Results: One hundred and five patients children with the mean age of 108.64 +or- 65.61 months were enrolled in this study. The most common cause of transmission in pediatric patients was in contact with a family member diagnosed with COVID-19 (n = 91, 86.7%). The most common admission complaints were dry cough (n = 17, 16.2%), fever (n = 16, 15.2%), lassitude and fatigue (n = 14, 13.3%) respectively. More than 95% of all children with Covid-19 were asymptomatic, mild, or moderate cases. CRP was identified only independent factor associated with long duration of hospitalization. Conclusion: The results of this study show the effect of Covid-19 on Turkish

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children. A clear understanding of the local epidemiology of corona virus infections and identification of risk factors are critical for the successful implementation of the prevention and control program.

Publication Type

Journal article.

<702>

Accession Number

20203548141

Author

Tural, D. A.; Emiralioglu, N.; Hesapcioglu, S. T.; Karahan, S.; Ozsezen, B.; Sunman, B.; Buyuksahin, H. N.; Yalcin, E.; Dogru, D.; Ozcelik, U.; Kiper, N.

Title

Psychiatric and general health effects of COVID-19 pandemic on children with chronic lung disease and parents' coping styles.

Source

Pediatric Pulmonology; 2020. 55(12):3579-3586. 40 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

Background: We aim to assess the anxiety and depressive symptoms related to the COVID-19 pandemic in children with chronic lung disease and their parents and also to evaluate parents' coping strategies. Methods: Parents of children aged 4-18 years, with chronic lung disease (study group n = 113) and healthy control (n = 108) were enrolled in the study. General Health Questionnaire-12, specific COVID-19 related anxiety questions, The Coping Orientation to Problems Experienced inventory, coronavirus-related psychiatric symptom scale in children-parental form were used to analyze the psychiatric effects of COVID-19. Parents were also asked about how online education affected their family life and children. All data were compared between children/parents in the study and control groups. Risk factors related with anxiety scores of children were also analyzed. Results: Talking about the pandemic, concern about coronavirus transmission, taking precaution to prevent coronavirus transmission, making pressure to protect from COVID-19 were significantly higher in parents within the study group (p < .05). Parents in the study group

used more problem-focused coping than parents in the control group (p = .003). Anxiety symptoms score was higher in children of the study group (p = .007). Parents in the study group found online education more useful than parents in the control group. Conclusion: Children with chronic lung diseases and their parents have more anxiety due to COVID-19 pandemic and these parents use more mature coping strategies to manage the stress of the pandemic. Longitudinal and larger studies should be done in all aspects of online education in children with chronic lung diseases.

Publication Type

  Journal article.

<703>

Accession Number

  20203548085

Author

  Sherrard-Smith, E.; Hogan, A. B.; Hamlet, A.; Watson, O. J.; Whittaker, C.; Winskill, P.; Ali, F.; Mohammad, A. B.; Uhomoibhi, P.; Maikore, I.; Ogbulafor, N.; Nikau, J.; Kont, M. D.; Challenger, J. D.; Verity, R.; Lambert, B.; Cairns, M.; Rao, B.; Baguelin, M.; Whittles, L. K.; Lees, J. A.; Bhatia, S.; Knock, E. S.; Okell, L.; Slater, H. C.; Ghani, A. C.; Walker, P. G. T.; Okoko, O. O.; Churcher, T. S.

Title

  The potential public health consequences of COVID-19 on malaria in Africa.

Source

  Nature Medicine; 2020. 26(9):1411-1416. 78 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  The burden of malaria is heavily concentrated in sub-Saharan Africa (SSA) where cases and deaths associated with COVID- 19 are rising. In response, countries are implementing societal measures aimed at curtailing transmission of SARS-CoV-2. Despite these measures, the COVID-19 epidemic could still result in millions of deaths as local health facilities become overwhelmed4. Advances in malaria control this century have been largely due to distribution of long-lasting insecticidal nets (LLINs)5, with many SSA countries having planned campaigns for 2020. In the present study, we use COVID-19 and malaria transmission

models to estimate the impact of disruption of malaria prevention activities and other core health services under four different COVID-19 epidemic scenarios. If activities are halted, the malaria burden in 2020 could be more than double that of 2019. In Nigeria alone, reducing case management for 6 months and delaying LLIN campaigns could result in 81,000 (44,000-119,000) additional deaths. Mitigating these negative impacts is achievable, and LLIN distributions in particular should be prioritized alongside access to antimalarial treatments to prevent substantial malaria epidemics.

Publication Type

  Journal article.

<704>

Accession Number

  20203548083

Author

  Rockett, R. J.; Arnott, A.; Lam, C.; Sadsad, R.; Timms, V.; Gray, K. A.; Eden, J. S.; Chang, S.; Gall, M.; Draper, J.; Sim, E. M.; Bachmann, N. L.; Carter, I.; Basile, K.; Byun, R.; O'Sullivan, M. V.; Chen, S. C. A.; Maddocks, S.; Sorrell, T. C.; Dwyer, D. E.; Holmes, E. C.; Kok, J.; Prokopenko, M.; Sintchenko, V.

Title

  Revealing COVID-19 transmission in Australia by SARS-CoV-2 genome sequencing and agent-based modeling.

Source

  Nature Medicine; 2020. 26(9):1398-1404. 46 ref.

Publisher

  Nature Publishing Group

Location of Publisher

  London

Country of Publication

  UK

Abstract

  In January 2020, a novel betacoronavirus (family Coronaviridae), named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was identified as the etiological agent of a cluster of pneumonia cases occurring in Wuhan City, Hubei Province, China. The disease arising from SARS-CoV-2 infection, coronavirus disease 2019 (COVID-19), subsequently spread rapidly causing a worldwide pandemic. Here we examine the added value of near real-time genome sequencing of SARS-CoV-2 in a subpopulation of infected patients during the first 10 weeks of COVID-19 containment in Australia and compare findings

from genomic surveillance with predictions of a computational agent-based model (ABM). Using the Australian census data, the ABM generates over 24 million software agents representing the population of Australia, each with demographic attributes of an anonymous individual. It then simulates transmission of the disease over time, spreading from specific infection sources, using contact rates of individuals within different social contexts. We report that the prospective sequencing of SARS-CoV-2 clarified the probable source of infection in cases where epidemiological links could not be determined, significantly decreased the proportion of COVID-19 cases with contentious links, documented genomically similar cases associated with concurrent transmission in several institutions and identified previously unsuspected links. Only a quarter of sequenced cases appeared to be locally acquired and were concordant with predictions from the ABM. These high-resolution genomic data are crucial to track cases with locally acquired COVID-19 and for timely recognition of independent importations once border restrictions are lifted and trade and travel resume.

Publication Type

  Journal article.

<705>

Accession Number

  20203547862

Author

  Goussard, P.; Wyk, L. van; Burke, J.; Malherbe, A.; Retief, F.; Andronikou, S.; Mfingwana, L.; Ruttens, D.; Zalm, M. van der; Dramowski, A.; Costa, A. da; Rabie, H.

Title

  Bronchoscopy in children with COVID-19: a case series.

Source

  Pediatric Pulmonology; 2020. 55(10):2816-2822. 27 ref.

Publisher

  Wiley

Location of Publisher

  Hoboken

Country of Publication

  USA

Abstract

  Introduction: The coronavirus disease-2019 (COVID-19) era is a challenging time for respiratory teams to protect their patients and staff. COVID-19 is predominantly transmitted by respiratory droplets; in the

clinical setting, aerosol generating procedures pose the greatest risk for COVID-19 transmission. Bronchoscopy is associated with increased risk of patient-to-health care worker transmission, owing to aerosolized viral particles which may be inhaled and also result in environmental contamination of surfaces. Methods: We describe our experience with the use of modified full-face snorkeling masks for pediatric bronchoscopy procedures in four COVID-19 infected children when filtering facepieces/respirators were in limited supply. Results: Bronchoscopy was urgently required in four children, and could not be delayed until COVID-19 test results were available. During the pandemic peak, when respirators were in short supply, modified full-face snorkel masks (SEAC Libera, SEAC, Italy) were worn by the bronchoscopy team. Each mask was fitted with an O-ring, adapter, and heat and moisture exchanger filter. To date, there have been no COVID-19 infections among the bronchoscopy team staff, whereas the overall Hospital staff COVID-19 prevalence rate has exceeded 13.5% (667/4949). Conclusion: Emergency bronchoscopy procedures on COVID-19 infected patients or patients with unknown infection status can be safely performed using modified full-face snorkel masks.

Publication Type

  Journal article.

<706>

Accession Number

  20203547719

Author

  Galanakis, C. M.; Aldawoud, T. M. S.; Rizou, M.; Rowan, N. J.; Ibrahim, S. A.

Title

  Food ingredients and active compounds against the coronavirus disease (COVID-19) pandemic: a comprehensive review.

Source

  Foods; 2020. 9(11). 115 ref.

Publisher

  MDPI AG

Location of Publisher

  Basel

Country of Publication

  Switzerland

Abstract

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As media reports have noted, the COVID-19 pandemic has accelerated market mainstreaming of immune-boosting food bioactives, supplements, and nutraceuticals. However, most studies reporting on the potential of bioactives against COVID-19 transmission have been uploaded as preprints with little opportunity to revise content for benefit and impact. The current review discusses current best evidence and information underpinning the role of food ingredients and bioactive compounds in supporting immune functions in humans and animals, specifically in the prevention and treatment of COVID-19 disease. Up to now, some evidence from randomized population and clinical trials has suggested that vitamin D levels may be linked to COVID-19 transmission and severity. Numerous theoretical studies have pointed to polyphenols and particularly flavonoids as potential inhibitors of SARS-CoV-2 infection. There is also inconclusive evidence to support the future use of beta-glucan to address COVID-19 due in part to variability in immune response arising from heterogeneity in polysaccharide branch and chain length for different sources and the absence of a standardized extraction method. To confirm the promising outcomes and hypotheses for bioactive compounds, more randomized and controlled clinical studies are needed. The results of such studies would have a profound effect on the prospects of food supplements and nutraceuticals as potential prophylaxis against COVID-19 and serve to help consumers to protect themselves during the post-lockdown recovery era.

Publication Type

Journal article.

<707>

Accession Number

20203547444

Author

Fares, S.; Sanesi, G.; Vacchiano, G.; Salbitano, F.; Marchetti, M.

Title

Urban forests at the time of COVID-19 protect us from fine dust. [Italian]

Source

Forest@; 2020. 17(48-51):48-51. 12 ref.

Publisher

Italian Society of Silviculture and Forest Ecology

Location of Publisher

Parma

Country of Publication

Italy

Abstract

In these days, the role that fine particles in urban areas could play in facilitating the pandemic spread of the COVID-19 virus is becoming increasingly important. It is also well known that exposure to air pollution and in particular to fine dust favors diseases involving the respiratory system. In this context of strong concern, we argue that urban forests can contribute to reduce the concentrations of particulates or in any increase their dispersion. Not all tree species have the same performance in removing particulates. In this short article, recent works are commented that classify urban forest species according to their ability to reduce particulate matter ambient concentrations, and we conclude highlighting the significant role that urban forests could play in improving air quality and human wellbeing in the future.

Publication Type

Journal article.

<708>

Accession Number

20203547358

Author

Li ChunFeng; Cheng GenHong

Title

Will hydroxychloroquine still be a game-changer for COVID-19 by combining azithromycin?

Source

Frontiers in Immunology; 2020. 11(August). 70 ref.

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

Recent small-scale clinical trials have shown promising results in the use of hydroxychloroquine, an FDA approved anti-malaria drug, for the treatment of COVID-19. However, large scale, randomized and double-blind clinical trials are needed to confirm the safety and efficacy of hydroxychloroquine in COVID-19 patients. Here, we review the progress of using hydroxychloroquine or chloroquine as anti-viral agents, failed clinical trials of chloroquine in treatment of dengue virus and influenza infection, and especially the mechanism of azithromycin in inhibiting viral replication, so as to shed light on the ongoing clinical trials and further researches of hydroxychloroquine on SARS-CoV-2 infected patients. As of 6/3/2020, more than

6.3 million people across the world have been infected with SARS-CoV-2, with the death toll reaching 383,000 since the beginning of the outbreak in late December 2019 (https://coronavirus.jhu.edu/map.html). This pandemic has changed our daily life dramatically, especially of those who are directly infected. SARS-CoV-2 is a highly virulent newly emerging coronavirus belonging to the Betacoronavirus genus within the family of Coronaviridae, which includes four genera: Alphacoronavirus, Betacoronavirus, Gammacoronavirus, and Deltacoronavirus (1). SARS-CoV-2 and other four human coronaviruses (OC43, SARS-CoV, MERS-CoV, and HKU1) belong to the Betacoronavirus genus, while two other human coronaviruses NL63 and 229E, PDEV (porcine epidemic diarrhea virus) in pigs, TGEV (transmissible gastroenteritis virus) in swine, FCoV (feline coronaviruses), CCoV (canine coronaviruses), FRECV (ferret enteric coronavirus) belong to the Alphacoronavirus genus (2). Like SARS and MERS, SARS-CoV-2 was originally found in a bat reservoir, but was transmitted through a different intermediate host like pangolin (3).

Publication Type

Journal article.

<709>

Accession Number

20203547351

Author

Vitte, J.; Michel, M.; Mezouar, S.; Diallo, S. B.; Boumaza, A.; Mege, J. L.; Desnues, B.

Title

Immune modulation as a therapeutic option during the SARS-CoV-2 outbreak: the case for antimalarial aminoquinolines.

Source

Frontiers in Immunology; 2020. 11(August). 130 ref.

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

The rapid spread, severity, and lack of specific treatment for COVID-19 resulted in hasty drug repurposing. Conceptually, trials of antivirals were well-accepted, but twentieth century antimalarials sparked an

impassioned global debate. Notwithstanding, antiviral and immunomodulatory effects of aminoquinolines have been investigated in vitro, in vivo and in clinical trials for more than 30 years. We review the mechanisms of action of (hydroxy)chloroquine on immune cells and networks and discuss promises and pitfalls in the fight against SARS-CoV-2, the agent of the COVID-19 outbreak.

Publication Type

  Journal article.

<710>

Accession Number

  20203547350

Author

  He Bing; Wang Jun; Wang YuDie; Zhao Juan; Huang Juan; Tian Yu; Yang Cheng; Zhang Heng; Zhang MingXia; Gu LiXing; Zhou XiaoCui; Zhou JingJiao

Title

  The metabolic changes and immune profiles in patients with COVID-19.

Source

  Frontiers in Immunology; 2020. 11(August). 28 ref.

Publisher

  Frontiers Media S.A.

Location of Publisher

  Lausanne

Country of Publication

  Switzerland

Abstract

  To explore the metabolic changes and immune profiles in patients with COVID-19, we analyzed the data of patients with mild and severe COVID-19 as well as young children with COVID-19. Of the leukocytes, 47% (IQR, 33-59) were lymphocytes [2.5 x 109/L (IQR, 2.2-3.3)], and monocytes were 0.51 x 109/L (IQR, 0.45-0.57) in young children with COVID-19. In 32 mild COVID-19 patients, circulating monocytes were 0.45 x 109/L (IQR, 0.36-0.64). Twenty-one severe patients had low PO2 [57 mmHg (IQR, 50-73)] and SO2 [90% (IQR, 86-93)] and high lactate dehydrogenase [580 U/L (IQR, 447-696)], cardiac troponin I [0.07 ng/mL (IQR, 0.02-0.30)], and pro-BNP [498 pg/mL (IQR, 241-1,726)]. Serum D-dimer and FDP were 9.89 mg/L (IQR, 3.62-22.85) and 32.7 mg/L (IQR, 12.8-81.9), and a large number of RBC (46/L (IQR, 4-242)) was presented in urine, a cue of disseminated intravascular coagulation (DIC) in severe patients. Three patients had comorbidity with diabetes, and 18 patients without diabetes also presented high blood glucose [7.4 mmol/L

(IQR, 5.9-10.1)]. Fifteen of 21 (71%) severe cases had urine glucose +, and nine of 21 (43%) had urine ketone body +. The increased glucose was partially caused by reduced glucose consumption of cells. Severe cases had extraordinarily low serum uric acid [176 mol/L (IQR, 131-256)]. In the late stage of COVID-19, severe cases had extremely low CD4+ T cells and CD8+ T cells, but unusually high neutrophils [6.5 x 109/L (IQR, 4.8-9.6)], procalcitonin [0.27 ng/mL (IQR, 0.14-1.94)], C-reactive protein [66 mg/L (IQR, 25-114)] and an extremely high level of interleukin-6. Four of 21 (19%) severe cases had co-infection with fungi, and two of 21 (9%) severe cases had bacterial infection. Our findings suggest that, severe cases had acute respiratory distress syndrome (ARDS) I-III, and metabolic disorders of glucose, lipid, uric acid, etc., even multiple organ dysfunction (MODS) and DIC. Increased neutrophils and severe inflammatory responses were involved in ARDS, MODS, and DIC. With the dramatical decrease of T-lymphocytes, severe cases were susceptible to co-infect with bacteria and fungi in the late stage of COVID-19. In young children, extremely high lymphocytes and monocytes might be associated with the low morbidity of COVID-19. The significantly increased monocytes might play an important role in the recovery of patients with mild COVID-19.

Publication Type

  Journal article.

<711>

Accession Number

  20203547336

Author

  Sanclemente-Alaman, I.; Moreno-Jimenez, L.; Benito-Martin, M. S.; Canales-Aguirre, A.; Matias-Guiu, J. A.; Matias-Guiu, J.; Gomez-Pinedo, U.

Title

  Experimental models for the study of central nervous system infection by SARS-CoV-2.

Source

  Frontiers in Immunology; 2020. 11(August). 156 ref.

Publisher

  Frontiers Media S.A.

Location of Publisher

  Lausanne

Country of Publication

  Switzerland

Abstract

Introduction: The response to the SARS-CoV-2 coronavirus epidemic requires increased research efforts to expand our knowledge of the disease. Questions related to infection rates and mechanisms, the possibility of reinfection, and potential therapeutic approaches require us not only to use the experimental models previously employed for the SARS-CoV and MERS-CoV coronaviruses but also to generate new models to respond to urgent questions. Development: We reviewed the different experimental models used in the study of central nervous system (CNS) involvement in COVID-19 both in different cell lines that have enabled identification of the virus' action mechanisms and in animal models (mice, rats, hamsters, ferrets, and primates) inoculated with the virus. Specifically, we reviewed models used to assess the presence and effects of SARS-CoV-2 on the CNS, including neural cell lines, animal models such as mouse hepatitis virus CoV (especially the 59 strain), and the use of brain organoids. Conclusion: Given the clear need to increase our understanding of SARS-CoV-2, as well as its potential effects on the CNS, we must endeavor to obtain new information with cellular or animal models, with an appropriate resemblance between models and human patients.

Publication Type

Journal article.

<712>

Accession Number

20203547327

Author

Herrmann, M.; Schulte, S.; Wildner, N. H.; Wittner, M.; Brehm, T. T.; Ramharter, M.; Woost, R.; Lohse, A. W.; Jacobs, T.; Schulze Zur Wiesch, J.

Title

Analysis of co-inhibitory receptor expression in COVID-19 infection compared to acute Plasmodium falciparum malaria: LAG-3 and TIM-3 correlate with T cell activation and course of disease.

Source

Frontiers in Immunology; 2020. 11(August). 76 ref.

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

Coronavirus disease 2019 (COVID-19) which is caused by the novel SARS-CoV-2 virus is a severe flu-like illness which is associated with hyperinflammation and immune dysfunction. The virus induces a strong T and B cell response but little is known about the immune pathology of this viral infection. Acute Plasmodium falciparum malaria also causes acute clinical illness and is characterized by hyperinflammation due to the strong production of pro-inflammatory cytokines and a massive activation of T cells. In malaria, T cells express a variety of co-inhibitory receptors which might be a consequence of their activation but also might limit their overwhelming function. Thus, T cells are implicated in protection as well as in pathology. The outcome of malaria is thought to be a consequence of the balance between co-activation and co-inhibition of T cells. Following the hypothesis that T cells in COVID-19 might have a similar, dual function, we comprehensively characterized the differentiation (CCR7, CD45RO) and activation status (HLA-DR, CD38, CD69, CD226), the co-expression of co-inhibitory molecules (PD1, TIM-3, LAG-3, BTLA, TIGIT), as well as the expression pattern of the transcription factors T-bet and eomes of CD8+ and CD4+ T cells of PBMC of n = 20 SARS-CoV-2 patients compared to n = 10 P. falciparum infected patients and n = 13 healthy controls. Overall, acute COVID-19 and malaria infection resulted in a comparably elevated activation and altered differentiation status of the CD8+ and CD4+ T cell populations. T effector cells of COVID-19 and malaria patients showed higher frequencies of the inhibitory receptors T-cell immunoglobulin mucin-3 (TIM-3) and Lymphocyte-activation gene-3 (LAG-3) which was linked to increased activation levels and an upregulation of the transcription factors T-bet and eomes. COVID-19 patients with a more severe disease course showed higher levels of LAG-3 and TIM-3 than patients with a mild disease course. During recovery, a rapid normalization of these inhibitory receptors could be observed. In summary, comparing the expression of different co-inhibitory molecules in CD8+ and CD4+ T cells in COVID-19 vs. malaria, there is a transient increase of the expression of certain inhibitory receptors like LAG-3 and TIM-3 in COVID-19 in the overall context of acute immune activation.

Publication Type

Journal article.

<713>

Accession Number

20203547307

Author

Stryhn, A.; Kongsgaard, M.; Rasmussen, M.; Harndahl, M. N.; Osterbye, T.; Bassi, M. R.; Thybo, S.; Gabriel, M.; Hansen, M. B.; Nielsen, M.; Christensen, J. P.; Thomsen, A. R.; Buus, S.

Title

A systematic, unbiased mapping of CD8+ and CD4+ T cell epitopes in yellow fever vaccinees.

Source

Frontiers in Immunology; 2020. 11(August). 69 ref.

Publisher

Frontiers Media S.A.

Location of Publisher

 Lausanne

Country of Publication

 Switzerland

Abstract

 Examining CD8+ and CD4+ T cell responses after primary Yellow Fever vaccination in a cohort of 210 volunteers, we have identified and tetramer-validated 92 CD8+ and 50 CD4+ T cell epitopes, many inducing strong and prevalent (i.e., immunodominant) T cell responses. Restricted by 40 and 14 HLA-class I and II allotypes, respectively, these responses have wide population coverage and might be of considerable academic, diagnostic and therapeutic interest. The broad coverage of epitopes and HLA overcame the otherwise confounding effects of HLA diversity and non-HLA background providing the first evidence of T cell immunodomination in humans. Also, double-staining of CD4+ T cells with tetramers representing the same HLA-binding core, albeit with different flanking regions, demonstrated an extensive diversification of the specificities of many CD4+ T cell responses. We suggest that this could reduce the risk of pathogen escape, and that multi-tetramer staining is required to reveal the true magnitude and diversity of CD4+ T cell responses. Our T cell epitope discovery approach uses a combination of (1) overlapping peptides representing the entire Yellow Fever virus proteome to search for peptides containing CD4+ and/or CD8+ T cell epitopes, (2) predictors of peptide-HLA binding to suggest epitopes and their restricting HLA allotypes, (3) generation of peptide-HLA tetramers to identify T cell epitopes, and (4) analysis of ex vivo T cell responses to validate the same. This approach is systematic, exhaustive, and can be done in any individual of any HLA haplotype. It is all-inclusive in the sense that it includes all protein antigens and peptide epitopes, and encompasses both CD4+ and CD8+ T cell epitopes. It is efficient and, importantly, reduces the false discovery rate. The unbiased nature of the T cell epitope discovery approach presented here should support the refinement of future peptide-HLA class I and II predictors and tetramer technologies, which eventually should cover all HLA class I and II isotypes. We believe that future investigations of emerging pathogens (e.g., SARS-CoV-2) should include population-wide T cell epitope discovery using blood samples from patients, convalescents and/or long-term survivors, who might all hold important information on T cell epitopes and responses.

Publication Type

 Journal article.

<714>

Accession Number

 20203546996

Author

 Naveen Narayanan; Nair, D. T.

Title

Vitamin B12 may inhibit RNA-dependent-RNA polymerase activity of nsp12 from the SARS-CoV-2 virus.

Source

IUBMB Life; 2020. 72(10):2112-2120. 25 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

SARS-CoV-2 is the causative agent for the ongoing COVID19 pandemic, and this virus belongs to the Coronaviridae family. Like other members of this family, the virus possesses a positive-sense single-stranded RNA genome. The genome encodes for the nsp12 protein, which houses the RNA-dependent-RNA polymerase (RdRP) activity responsible for the replication of the viral genome. A homology model of nsp12 was prepared using the structure of the SARS nsp12 (6NUR) as a model. The model was used to carry out in silico screening to identify molecules among natural products, or Food and Drug Administration-approved drugs that can potentially inhibit the activity of nsp12. This exercise showed that vitamin B12 (methylcobalamin) may bind to the active site of the nsp12 protein. A model of the nsp12 in complex with substrate RNA and incoming NTP showed that vitamin B12 binding site overlaps with that of the incoming nucleotide. A comparison of the calculated energies of binding for RNA plus NTP and methylcobalamin suggested that the vitamin may bind to the active site of nsp12 with significant affinity. It is, therefore, possible that methylcobalamin binding may prevent association with RNA and NTP and thus inhibit the RdRP activity of nsp12. Overall, our computational studies suggest that methylcobalamin form of vitamin B12 may serve as an effective inhibitor of the nsp12 protein.

Publication Type

Journal article.

<715>

Accession Number

20203546909

Author

Rayner, J. O.; Roberts, R. A.; Kim Jin; Poklepovic, A.; Roberts, J. L.; Booth, L.; Dent, P.

Title

AR12 (OSU-03012) suppresses GRP78 expression and inhibits SARS-CoV-2 replication.

Source

Publisher

Location of Publisher

Country of Publication

Abstract

AR12 is a derivative of celecoxib which no-longer acts against COX2 but instead inhibits the ATPase activity of multiple chaperone proteins, in particular GRP78. GRP78 acts as a sensor of endoplasmic reticulum stress and is an essential chaperone required for the life cycle of all mammalian viruses. We and others previously demonstrated in vitro and in vivo that AR12 increases autophagosome formation and autophagic flux, enhances virus protein degradation, preventing virus reproduction, and prolonging the survival of infected animals. In this report, we determined whether AR12 could act against SARS-CoV-2. In a dose-dependent fashion AR12 inhibited SARS-CoV-2 spike protein expression in transfected or infected cells. AR12 suppressed the production of infectious virions via autophagosome formation, which was also associated with degradation of GRP78. After AR12 exposure, the colocalization of GRP78 with spike protein was reduced. Knock down of eIF2a prevented AR12-induced spike degradation and knock down of Beclin1 or ATG5 caused the spike protein to localize in LAMP2+ vesicles without apparent degradation. HCT116 cells expressing ATG16L1 T300, found in the majority of persons of non-European descent, particularly from Africa, expressed greater amounts of GRP78 and SARS-CoV-2 receptor angiotensin converting enzyme 2 compared to ATG16L1 A300, predominantly found in Europeans, suggestive that ATG16L1 T300 expression may be associated with a greater ability to be infected and to reproduce SARS-CoV-2. In conclusion, our findings demonstrate that AR12 represents a clinically relevant anti-viral drug for the treatment of SARS-CoV-2.

Publication Type

Journal article.

<716>

Accession Number

20203546707

Author

Cotterill, S.; Bunney, S.; Lawson, E.; Chisholm, A.; Farmani, R.; Melville-Shreeve, P.

Title

COVID-19 and the water sector: understanding impact, preparedness and resilience in the UK through a sector-wide survey.

Source

Water and Environment Journal; 2020. 34(4):715-728. 20 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The COVID-19 pandemic led to drastically altered working practices. During the UK lockdown, a questionnaire was distributed to water professionals to understand their experiences and perceptions of organisational response. Findings were evaluated on the measures of mitigation, adaptation, coping and learning. Employees' perceived there were adequate procedures to mitigate a threat, partly due to preparations for Brexit. Participants quickly adapted, with eighty-four percent working from home. Coping was experienced at an individual and sector level. IT issues and care responsibilities made it harder for individuals to cope, but good communication and signposting of support helped. Eighty percent felt able to continue their usual role, implying coping mechanisms were effective. At the sector level, coping involved the ability to meet an increased water demand with a remote workforce. Lessons learned highlight the importance of communication and collaboration. Future crisis plans should prepare for prolonged crises of international magnitude and multiple threats.

Publication Type

Journal article.

<717>

Accession Number

20203546576

Author

Praveen Rishi; Khemraj Thakur; Shania Vij; Lavanya Rishi; Aagamjit Singh; Indu Pal Kaur; Patel, S. K. S.; Lee JungKul; Kalia, V. C.

Title

Diet, gut microbiota and COVID-19.

Source

Indian Journal of Microbiology; 2020. 60(4):420-429. 68 ref.

Publisher

Springer

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Worldwide, millions of individuals have been affected by the prevailing SARS-CoV-2. Therefore, a robust immune system remains indispensable, as an immunocompromised host status has proven to be fatal. In the absence of any specific antiviral drug/vaccine, COVID-19 related drug repurposing along with various other non-pharmacological measures coupled with lockdown have been employed to combat this infection. In this context, a plant based rich fiber diet, which happens to be consumed by a majority of the Indian population, appears to be advantageous, as it replenishes the host gut microbiota with beneficial microbes thereby leading to a symbiotic association conferring various health benefits to the host including enhanced immunity. Further, implementation of the lockdown which has proven to be a good non-pharmacological measure, seems to have resulted in consumption of home cooked healthy diet, thereby enriching the beneficial microflora in the gut, which might have resulted in better prognosis of COVID-19 patients in India in comparison to that observed in the western countries.

Publication Type

Journal article.

<718>

Accession Number

20203546411

Author

Rajesh Rajaiah; Abhilasha, K. V.; Shekar, M. A.; Vogel, S. N.; Vishwanath, B. S.

Title

Evaluation of mechanisms of action of re-purposed drugs for treatment of COVID-19.

Source

Cellular Immunology; 2020. 358. 122 ref.

Publisher

Elsevier Inc

Location of Publisher

Orlando

Country of Publication

USA

Abstract

Coronavirus disease 2019 (COVID-19) is a global health emergency caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The rapid worldwide spread of SARS-CoV-2 infection has necessitated a global effort to identify effective therapeutic strategies in the absence of vaccine. Among the re-purposed drugs being tested currently, hydroxychloroquine (HCQ), without or with zinc ion (Zn++) and the antibiotic azithromycin (AZM), has been administered to prevent or treat patients with COVID-19. The outcome of multiple clinical studies on HCQ has been mixed. Zn++ interferes with viral replication by inhibiting replicative enzymes and its entry into cells may be facilitated by HCQ. Another immunomodulatory drug, methotrexate (MTX), is well known for its ability to mitigate overactive immune system by upregulating the anti-inflammatory protein, A20. However, its beneficial effect in treating COVID-19 has not drawn much attention. This review provides an overview of the virology of SARS-CoV-2 and an analysis of the mechanisms by which these anti-inflammatory agents may act in the treatment of COVID-19 patients. We propose a rationale for the combinatorial use of these re-purposed drugs that may help to combat this ongoing pandemic health emergency.

Publication Type

Journal article.

<719>

Accession Number

20203546381

Author

Kim WooRyung; Park EunGyung; Kang KyungWon; Lee SangMyeong; Kim BumSeok; Kim HeuiSoo

Title

Expression analyses of microRNAs in hamster lung tissues infected by SARS-CoV-2.

Source

Molecules and Cells; 2020. 43(11):953-963. 84 ref.

Publisher

Korean Society for Molecular Biology

Location of Publisher

Seoul

Country of Publication

Korea Republic

Abstract

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is an infectious disease with multiple severe symptoms, such as fever over 37.5 degrees C, cough, dyspnea, and pneumonia. In our research, microRNAs (miRNAs) binding to the genome sequences of severe acute respiratory syndrome coronavirus (SARS-CoV), Middle East respiratory-related coronavirus (MERS-CoV), and SARS-CoV-2 were identified by bioinformatic tools. Five miRNAs (hsa-miR-15a-5p, hsa-miR-15b-5p, hsa-miR-195-5p, hsa-miR-16-5p, and hsa-miR-196a-1-3p) were found to commonly bind to SARS-CoV, MERS-CoV, and SARS-CoV-2. We also identified miRNAs that bind to receptor proteins, such as ACE2, ADAM17, and TMPRSS2, which are important for understanding the infection mechanism of SARS-CoV-2. The expression patterns of those miRNAs were examined in hamster lung samples infected by SARS-CoV-2. Five miRNAs (hsa-miR-15b-5p, hsa-miR-195-5p, hsa-miR-221-3p, hsa-miR-140-3p, and hsa-miR-422a) showed differential expression patterns in lung tissues before and after infection. Especially, hsa-miR-15b-5p and hsa-miR-195-5p showed a large difference in expression, indicating that they may potentially be diagnostic biomarkers for SARS-CoV-2 infection.

Publication Type

Journal article.

<720>

Accession Number

20203546361

Author

Peters, M.; Burkart, S.

Title

Update of SoFT (selection of forages for the tropics) - final report.

Source

ACIAR Final Reports; 2020. (FR2020/011):19 pp. 8 ref.

Publisher

Australian Centre for International Agricultural Research (ACIAR)

Location of Publisher

Canberra

Country of Publication

Australia

Abstract

  The availability of quality forage and livestock feed, particularly in times of feed scarcity, remains one of the key constraints to increasing livestock productivity in the tropics. The use of well-adapted, improved sown forages underpins the development of sustainable livestock production systems and natural resource management. Selection of Forages for the Tropics (SoFT; http://tropicalforages.info/) is an open-access, online, expert knowledge system created by a team of renowned international forage specialists between 2000 and 2005. It provides detailed information on 180 major forages grown in the tropics and sub-tropics and incorporates a species selection tool based on target environment and forage use. The ability to select and prioritize forages for specific production niches, environments, socio-economic conditions and specific animal requirements is important to mitigate feed shortages and improve natural resource management as part of sustainable farming systems. Since its release in 2005, SoFT is being used by a wide range of actors, with an average of >250,000 website visits and >175,000 unique visitors per year. Although those numbers are impressive, research has advanced during the last 10-15 years and generated newinformation on forage performance and use. At the same time, rapid advances in knowledge management and information technology were made, such as the use of mobile devices and automatic translation features. Updating the original SoFT tool to a new, improved version ("Tropical Forages" from here on), was proposed to ACIAR as SRA project in 2016 and funded from 2017-2019. The aim of this project was to enrich Tropical Forages both in terms of content and technical features, in order to enhance its quality, utility, usability and reach. Through a series of workshops, meetings and literature review, this project consulted with a group of scientists who provided global leadership to tropical forage research and development for the last 30 to 40 years. By this, the following outputs were achieved: (1) Updating and improving tropical forages knowledge: All species were revised regarding their adequacy and obsolete species were deleted/new ones added, leaving 172 species in the new tool. The respective species factsheets were updated in terms of scientific knowledge, photos and cultivar/accession information. Missing factsheets were developed and added. The selection tool was updated regarding its functioning and selection criteria and all new species were incorporated. (2) Improving access to tropical forage information: The tool website was updated in terms of technical advances and optimized for tablets and smartphones. In addition, a mobile application was developed. The design of the website was renewed, and a pdf-download function for all factsheets, automatic googletranslation for 30+ languages, and a user feedback mechanism were added. The prototypes of the new Tropical Forages website (http://bit.ly/SoFT-Test) and mobile app (https://tinyurl.com/rxjevle) are already available and currently in the final testing phase. Due to the COVID-19 pandemic, the final testing meeting had to be postponed for now and a change of location was necessary (from China to Australia). The project team also decided to wait with the official launch until the crisis has calmed down and adequate attention and media coverage can be given to the release. After the release of the new tool, we expect to reach even more users than with version 1, in particular in regions where access to information is granted mostly via mobile phones and tablets, e.g., sub-Saharan Africa, East Asia and Central America and the Caribbean. Through providing a mobile application, we also hope to attract younger users. The added translation functionality is expected to further increase reach.

Publication Type

  Bulletin.

<721>

Accession Number

20203546331

Author

Shi TzuHau; Huang YiLong; Chen ChiaoChe; Pi WenChieh; Hsu YuLing; Lo LeeChiang; Chen WeiYi; Fu ShuLing; Lin ChaoHsiung

Title

Andrographolide and its fluorescent derivative inhibit the main proteases of 2019-nCoV and SARS-CoV through covalent linkage.

Source

Biochemical and Biophysical Research Communications; 2020. 533(3):467-473. 34 ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The coronavirus disease 2019 (COVID-19) pandemic caused by 2019 novel coronavirus (2019-nCoV) has been a crisis of global health, whereas the effective vaccines against 2019-nCoV are still under development. Alternatively, utilization of old drugs or available medicine that can suppress the viral activity or replication may provide an urgent solution to suppress the rapid spread of 2019-nCoV. Andrographolide is a highly abundant natural product of the medicinal plant, Andrographis paniculata, which has been clinically used for inflammatory diseases and anti-viral therapy. We herein demonstrate that both andrographolide and its fluorescent derivative, the nitrobenzoxadiazole-conjugated andrographolide (Andro- NBD), suppressed the main protease (Mpro) activities of 2019-nCoV and severe acute respiratory syndrome coronavirus (SARS-CoV). Moreover, Andro-NBD was shown to covalently link its fluorescence to these proteases. Further mass spectrometry (MS) analysis suggests that andrographolide formed a covalent bond with the active site Cys145 of either 2019-nCoV Mpro or SARS-CoV Mpro. Consistently, molecular modeling analysis supported the docking of andrographolide within the catalytic pockets of both viral Mpros. Considering that andrographolide is used in clinical practice with acceptable safety and its diverse pharmacological activities that could be beneficial for attenuating COVID-19 symptoms, extensive investigation of andrographolide on the suppression of 2019-nCoV as well as its application in COVID-19 therapy is suggested.

Publication Type

Journal article.

<725>

Accession Number

  20203546134

Author

  Ribeiro, M. R. C.; Damiano, R. F.; Marujo, R.; Nasri, F.; Lucchetti, G.

Title

  The role of spirituality in the COVID-19 pandemic: a spiritual hotline project.

Source

  Journal of Public Health; 2020. 42(4):855-856. 6 ref.

Publisher

  Oxford University Press

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Recent correspondence letters to the editor of this journal pointed out to the need of implementing psychological support during the pandemic and post-pandemic period to both general and frontline workers. Especially, they highlighted the importance of religious/spiritual interventions in order to provide an integral and holistic care. In this perspective, an important consequence of the social isolation is the closure of churches and the suspension of religious meetings in order to avoid agglomeration and contagion. However, although this is a very important approach in terms of public health, a question is raised: how to promote spiritual care and help spiritual/religious individuals to cope with their problems while maintaining compliance with social isolation? To address this question, we report the Spiritual Hotline Project, a project designed by many Brazilian healthcare workers intended to give spiritual and religious assistance to people with different cultural background. So far, the hotline was able to assist people from different parts of the world, including Brazil and Portugal as well as with different religious affiliation, in order to provide a spiritual comfort and care during this public health crisis.

Publication Type

  Journal article.

<723>

Accession Number

  20203545952

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715

Author

Grebe, G.; Velez, J. A.; Tiutiunnyk, A.; Aragon-Caqueo, D.; Fernandez-Salinas, J.; Navarrete, M.; Laroze, D.

Title

Dynamic quarantine: a comparative analysis of the Chilean public health response to COVID-19.

Source

Epidemiology and Infection; 2020. 148(e270). 27 ref.

Publisher

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

In this study, an analysis of the Chilean public health response to mitigate the spread of COVID-19 is presented. The analysis is based on the daily transmission rate (DTR). The Chilean response has been based on dynamic quarantines, which are established, lifted or prolonged based on the percentage of infected individuals in the fundamental administrative sections, called communes. This analysis is performed at a national level, at the level of the Metropolitan Region (MR) and at the commune level in the MR according to whether the commune did or did not enter quarantine between late March and mid-May of 2020. The analysis shows a certain degree of efficacy in controlling the pandemic using the dynamic quarantine strategy. However, it also shows that apparent control has only been partially achieved to date. With this policy, the control of the DTR partially falls to 4%, where it settles, and the MR is the primary vector of infection at the country level. For this reason, we can conclude that the MR has not managed to control the disease, with variable results within its own territory.

Publication Type

Journal article.

<724>

Accession Number

20203545817

Author

Petrella, S.

Title

Removal of airborne particulate matter (PM10 and PM2.5) in three protected areas and two historic parks in the city of Rome during the lockdown period (March-April 2020). [Italian]

Source

Forest@; 2020. 17(78-87):78-87. 40 ref.

Publisher

Italian Society of Silviculture and Forest Ecology

Location of Publisher

Parma

Country of Publication

Italy

Abstract

Airborne particulate matter (PM) has been widely demonstrated to play a role in the increase in mortality linked to cardio-respiratory diseases, in the reduction of immune system defense mechanisms, and in the transmission of pathogens. Equally accepted is the role that trees play in fine particulate matter absorption in urban areas. This study examined the capacity of particulate reduction in three protected areas in Rome within the park and nature reserve system managed by the regional organization "RomaNatura" (Riserva Naturale della Marcigliana, Riserva Naturale della Valle dell'Aniene and Parco Regionale Urbano di Aguzzano) and two historic Roman parks (Villa Ada and Villa Borghese). The study was held in March and April 2020 during the COVID 19 lockdown period. Due to the impossibility of physically gathering data and recording measurements in the field in order to define the biophysical characteristics of the areas under study, remote sensing techniques were utilized. Although such techniques may be influenced by a degree of uncertainty in the absence of calibration procedures based on in-field inspection and verification, they still constitute a preliminary phase for further investigation, especially for studying difficult-to-access areas or for project research with limited resources. The average quantities of fine and ultrafine particulate matter captured during the two-month period were 4.330.22 +or- 1.429.54 Kg di PM10 and 373.33 +or- 124.01 Kg di PM2.5. This data is not directly comparable to the results of similar studies conducted in much larger areas over longer periods of time. It nevertheless shows that remote sensing techniques based on free access databases and open source software can be employed by a community of motivated citizens with basic technical and scientific knowledge; it can also be a powerful means of awareness-building and involvement in the conservation of urban forests.

Publication Type

Journal article.

<725>

Accession Number

20203545460

Author

  Shaikh, S. A.; Deokar, S. C.; Patil, B. U.; Naukudkar, V. J.; Bhamare, B. A.

Title

  COVID-19 lockdown: significant impact on India.

Source

  Journal of Food, Agriculture & Environment; 2020. 18(2):13-15.

Publisher

  WFL Publisher Ltd.

Location of Publisher

  Helsinki

Country of Publication

  Finland

Abstract

  From all over the world, with a disease like COVID-19, there was no alternative to lockdown. Lockdown caused the entire world to collapse with India, but there were also some good results from the global recession. Lockdown period in India has helped reduce the prevalence of pollution, fuel and electricity abuse, accidents, deforestation, noise and addicts. The purpose of this article is to illustrate the significant impact of a one-month lockdown on India.

Publication Type

  Journal article.

<726>

Accession Number

  20203544905

Author

  Sinclair, C.; Nolte, L.; White, B. P.; Detering, K. M.

Title

  Advance care planning in Australia during the COVID-19 outbreak: now more important than ever.

Source

  Internal Medicine Journal; 2020. 50(8):918-923. 35 ref.

Publisher

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718

Wiley

Location of Publisher

Melbourne

Country of Publication

Australia

Abstract

The novel Coronavirus disease 2019 (COVID-19) outbreak has led to rapid and profound changes in healthcare system delivery and society more broadly. Older adults, and those living with chronic or life-limiting conditions, are at increased risk of experiencing severe or critical symptoms associated with COVID-19 infection and are more likely to die. They may also experience non-COVID-19 related deterioration in their health status during this period. Advance care planning (ACP) is critical for this cohort, yet there is no coordinated strategy for increasing the low rates of ACP uptake in these groups, or more broadly. This paper outlines a number of key reasons why ACP is an urgent priority, and should form a part of the health system's COVID-19 response strategy. These include reducing the need for rationing, planning for surges in healthcare demand, respecting human rights, enabling proactive care coordination and leveraging societal change. We conclude with key recommendations for policy and practice in the system-wide implementation of ACP, to enable a more ethical, coordinated and person-centred response in the COVID-19 context.

Publication Type

Journal article.

<727>

Accession Number

20203544820

Author

Kwok See; Adam, S.; Ho JanHoong; Iqbal, Z.; Turkington, P.; Razvi, S.; Roux, C. W. le; Soran, H.; Syed, A. A.

Title

Obesity: a critical risk factor in the COVID-19 pandemic.

Source

Clinical Obesity; 2020. 10(6). 140 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Obesity is an emerging independent risk factor for susceptibility to and severity of coronavirus disease 2019 (COVID-19) caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Previous viral pandemics have shown that obesity, particularly severe obesity (BMI > 40 kg/m2), is associated with increased risk of hospitalization, critical care admission and fatalities. In this narrative review, we examine emerging evidence of the influence of obesity on COVID-19, the challenges to clinical management from pulmonary, endocrine and immune dysfunctions in individuals with obesity and identify potential areas for further research. We recommend that people with severe obesity be deemed a vulnerable group for COVID-19; clinical trials of pharmacotherapeutics, immunotherapies and vaccination should prioritize inclusion of people with obesity.

Publication Type

Journal article.

<728>

Accession Number

20203544812

Author

Abawi, O.; Welling, M. S.; Eynde, E. van den; Rossum, E. F. C. van; Halberstadt, J.; Akker, E. L. T. van den; Voorn, B. van der

Title

COVID-19 related anxiety in children and adolescents with severe obesity: a mixed-methods study.

Source

Clinical Obesity; 2020. 10(6). 27 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Recent studies report negative mental health effects of the COVID-19 related lockdown measures in general paediatric cohorts. Since obesity is a risk factor for COVID-19 in adults, children (including adolescents) with obesity might perceive themselves to be vulnerable. Using a combined quantitative and qualitative approach, we explored COVID-19 related anxiety in paediatric patients with severe obesity in the Netherlands using semi-structured telephone interviews and the Paediatric Quality of Life Inventory (PedsQL) questionnaire, which had also been completed by the study population at baseline in the year prior to the COVID-19 outbreak. In total, 75 families participated in the semi-structured telephone interviews during the lockdown, April 2020. Characteristics of included patients were: median age 10.5 years (interquartile range = 7.6-15.2); 52% female; mean BMI standard deviation score 3.8 (SD = 1.0). COVID-19 related anxiety was reported for 24/75 (32%) children. The mean decrease in PedsQL score between baseline visit and COVID-19 outbreak did not differ between children for whom anxiety was reported vs those for whom it was not (mean change -10.3 +or- 36.5 vs -3.3 +or- 24.4, P = .54). Self-imposed strict quarantine measures were taken by 19/75 (25%) families. During follow-up, several families reported that the previous contact alleviated their anxiety. In conclusion, healthcare professionals should address possible COVID-19 related anxiety in children with severe obesity. Addressing COVID-19 related anxiety could mitigate its potential negative effects.

Publication Type

Journal article.

<729>

Accession Number

20203544810

Author

Yang ShuJuan; Guo Bing; Ao LinJun; Yang Chao; Zhang Lei; Zhou JunMin; Jia Peng

Title

Obesity and activity patterns before and during COVID-19 lockdown among youths in China.

Source

Clinical Obesity; 2020. 10(6). 12 ref.

Publisher

Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This study aim to assess changes in obesity and activity patterns among youths in China during the COVID-19 lockdown. We used the COVID-19 Impact on lifestyle change survey (COINLICS), a national retrospective survey distributed via social media platforms in early May 2020 where more than 10 000 youth participants in China have voluntarily reported their basic sociodemographic information, weight status, and routine lifestyles in the months before and during COVID-19 lockdown. The extended IOTF and WHO standards were used to define overweight and obesity of the participants. We used paired t-tests or X2 tests and non-parametric methods to evaluate the significance of differences in weight-related outcomes and lifestyles across education levels, between sexes, and before and during COVID-19 lockdown. The mean body mass index of all participating youths has significantly increased (21.8-22.6) and in all education subgroups during COVID-19 lockdown. Increases also occurred in the prevalence of overweight/obesity (21.3%-25.1%, P < .001) and obesity (10.5% to 12.9%, P < .001) in overall youths, especially in high school and undergraduate students. Their activity patterns had also significantly changed, including the decreased frequency of engaging in active transport, moderate-/vigorous-intensity housework, leisure-time moderate-/vigorous-intensity physical activity, and leisure-time walking, and the increased sedentary, sleeping, and screen time. Our findings would inform policy-makers and clinical practitioners of these changes in time, for better policy making and clinical practice. School administrators should also be informed of these changes, so in-class and/or extracurricular physical activity programs could be designed to counteract them.

Publication Type

  Journal article.

<730>

Accession Number

  20203544566

Author

  Senjuti Saha; Ahmed, N. U.; Sarkar, P. K.; Bipul, M. R. A.; Kinkar Ghosh; Rahman, S. W.; Hafizur Rahman; Yogesh Hooda; Nafiz Ahsan; Roly Malaker; Sajib, M. S. I.; Islam, M. S.; Anik, A. M.; Sudipta Saha; Naito Kanon; Maksuda Islam; Hamer, D. H.; Amin, M. R.; Mohammod Shahidullah; Saha, S. K.

Title

  The direct and indirect impact of SARS-CoV-2 infections on neonates: a series of 26 cases in Bangladesh.

Source

  Pediatric Infectious Disease Journal; 2020. 39(12):e398-e405. 28 ref.

Publisher

  Lippincott Williams & Wilkins, Inc.

Location of Publisher

  Hagerstown

Country of Publication

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722

USA

Abstract

Background: The impact of SARS-CoV-2 on neonates remains largely unknown in low- and middle-income countries (LMICs). We provide an epidemiologic and clinical report of SARS-CoV-2 infections in neonates hospitalized in Bangladesh. Methods: Outborn neonates admitted to Dhaka Shishu Hospital, a tertiary-care referral hospital, between 29 March and 1 July were screened for SARS-CoV-2. We reviewed clinical data, including chest radiograph and laboratory reports, and conducted SARS-CoV-2 genome sequencing. Patients were followed-up for 27-75 days. A subset of caregivers was also tested. Results: Of 83 neonates tested, 26 were positive (median age 8 days). Most neonates were admitted with diagnosis unrelated to SARS-CoV-2: 11 presented with serious non-communicable diseases, 7 with early-onset sepsis, 5 with late-onset sepsis and 2 with pneumonia. In 3 of 5 chest radiograph, infiltrates and ground-glass or patchy opacities were noted. Two neonates developed metabolic acidosis, one developed disseminated intravascular coagulation. Most SARS-CoV-2 positive neonates were referred to government-designated COVID-19 hospitals, leading to gaps in treatment. Twenty-three neonates could be followed-up: 12 were healthy, 8 died and 3 were still seeking medical care. Of 9 caregivers tested, 8 were positive. Conclusions: SARS-CoV-2 may have serious adverse effects on children born in LMICs. The virus likely contributed directly to two deaths, but the remaining 6 neonates who died had serious comorbidities. Positive SARS-CoV-2 test results led to gaps in immediate clinical care for other morbidities, which likely contributed to adverse outcomes. This case series emphasizes the need to understand COVID-19 in neonates in LMICs and its indirect impacts.

Publication Type

Journal article.

<731>

Accession Number

20203544565

Author

Marin Gabriel, M. A.; Reyne Vergeli, M.; Caserio Carbonero, S.; Sole, L.; Carrizosa Molina, T.; Rivero Calle, I.; Cuadrado Perez, I.; Alvarez Fernandez, B.; Forti Buratti, A.; Fernandez-Canadas Morillo, A.

Title

Maternal, perinatal and neonatal outcomes with COVID-19: a multicenter study of 242 pregnancies and their 248 infant newborns during their first month of life.

Source

Pediatric Infectious Disease Journal; 2020. 39(12):e393-e397. 54 ref.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

 Hagerstown

Country of Publication

 USA

Abstract

  Background: Our aim was to describe the clinical features of mothers with coronavirus disease 2019 (COVID-19) infection during gestation or delivery, and the potential vertical transmission. We also wish to evaluate the possible horizontal transmission after hospital discharge, by means of a follow-up of all the newborns included at 1 month of age. Methods: This multicenter descriptive study involved 16 Spanish hospitals. We reviewed the medical records of 242 pregnant women diagnosed with COVID-19 from March 13 to May 31, 2020, when they were in their third trimester of pregnancy. They and their 248 newborn infants were monitored until the infant was 1 month old. Results: Caesarean sections (C-sections) were performed on 63 (26%) women. The initial clinical symptoms were coughing (33%) and fever (29.7%). Mothers hospitalized due to COVID-19 pathology had a higher risk of ending their pregnancy via C-section ($P = 0.027$). Newborns whose mothers had been admitted due to their COVID-19 infection had a higher risk of premature delivery ($P = 0.006$). We admitted 115 (46.3%) newborn infants to the neonatal unit, of those, 87 (75.6%) were only admitted due to organizational circumstances. No infants died and no vertical or horizontal transmission was detected. Regarding type of feeding, 41.7% of the newborns received exclusive breast-feeding at discharge and 40.4% at 1 month. Conclusions: We did not detect COVID-19 transmission during delivery or throughout the first month of life in the newborns included in our study. Exclusive breast-feeding rates at discharge and at 1 month of age were lower than expected.

Publication Type

 Journal article.

<732>

Accession Number

 20203544412

Author

 Zhang Ying; Zhang Shun; Zheng Yi; Tang YingDan; He Ying; Zha PeiTao; Liu MingLu; Bai Xue; Zhang JingXuan; Yang GuoYu

Title

 Survey of risk perception among young military personnel serving in high-altitude regions in early stage of COVID-19 pandemic. [Chinese]

Source

 Journal of Third Military Medical University; 2020. 42(16):1619-1624. 19 ref.

Publisher

Third Military Medical University

Location of Publisher

Chongqing

Country of Publication

China

Abstract

Objective: To investigate the risk perception of coronavirus disease 2019 (COVID-19) among young military personnel serving in high-altitude regions in the early stage of COVID-19 outbreak. Methods: Using Risk Cognitive Questionnaire (RCQ), we conducted an online survey of risk perception for COVID-19 among 1 093 young military personnel serving in regions of different altitudes (<1 000 m, 3 000-4 000 m, and >4 000 m) in the early stage of COVID-19 outbreak (January 28 to 30, 2020), and analyzed the differences in risk cognition among the subjects. Results: The military personnel serving in high- and low-altitude regions showed significant differences in total RCQ scores and the scores for controllability, familiarity, fear and reversibility (P <0.05). The total RCQ scores differed significantly among the subjects with different marital status, education levels and experience of public health emergencies (P <0.05). Altitude, marital status, education and experience of public health emergencies were all important factors affecting risk perception of the disease among the young military personnel (P<0.05). The personnel serving in low-altitude (<1 000 m) regions who were unmarried, had a college degree, and had previous experience of public health emergencies had the lowest total RCQ scores, while those serving in regions above 4 000 m who were married and had at least a bachelor's degree without experience of public health emergencies had the highest total RCQ scores (P<0.05). Conclusion: As the altitude increases, the risk perception for COVID-19 tends to increase among the young military personnel. Special attention should be given to the mental health status of the well-educated, married personnel serving in high-altitude regions who have no experience of public health emergencies.

Publication Type

Journal article.

<733>

Accession Number

20203543586

Author

Nicola, S.; Ferrante, A.; Cocetta, G.; Bulgari, R.; Nicoletto, C.; Sambo, P.; Ertani, A.

Title

Food supply and urban gardening in the time of COVID-19.

Source

Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca. Horticulture; 2020. 77(2):141-144. 13 ref.

Publisher

University of Agricultural Sciences and Veterinary Medicine

Location of Publisher

Cluj-Napoca

Country of Publication

Romania

Abstract

The pandemic caused by Covid-19 has highlighted the vulnerability of the agrifood system. The urgent need to supply fresh food has arisen everywhere. Lockdown slowed down the fresh vegetables supply in the long distance distribution chains. In addition, the total confinement occurred in many countries left the people not only distressed, but also in the need to divert daily spare time to a new home gardening vitalization. During the pandemic, sales in local and street markets declined dramatically, while most purchases became concentrated in supermarkets. This fact has increased the risk of crowdedness and thus contamination or regulated entrances in the supermarkets, or left communities in small towns with limited access to food supply due to the lack of big grocery stores. Gardening can increase opportunities for local and fresh food availability. Scaling-up local food production becomes important to increase resilience of communities. The pandemic may represent an important opportunity to enhance a new era of gardening with modern technology along with traditional systems.

Publication Type

Journal article.

<734>

Accession Number

20203542918

Author

Nadeau, R.; Fard, S. S.; Scheer, A.; Hashimoto-Roth, E.; Nygard, D.; Abramchuk, I.; Chung YunEn; Bennett, S. A. L.; Lavallee-Adam, M.

Title

Computational identification of human biological processes and protein sequence motifs putatively targeted by SARS-CoV-2 proteins using protein-protein interaction networks. (Special Issue: Proteomics and its application in pandemic diseases.)

Source

Journal of Proteome Research; 2020. 19(11):4553-4566. 57 ref.

Publisher

American Chemical Society

Location of Publisher

Washington

Country of Publication

USA

Abstract

While the COVID-19 pandemic is causing important loss of life, knowledge of the effects of the causative SARS-CoV-2 virus on human cells is currently limited. Investigating protein-protein interactions (PPIs) between viral and host proteins can provide a better understanding of the mechanisms exploited by the virus and enable the identification of potential drug targets. We therefore performed an in-depth computational analysis of the interactome of SARS-CoV-2 and human proteins in infected HEK 293 cells published by Gordon et al. (Nature2020, 583, 459-468) to reveal processes that are potentially affected by the virus and putative protein binding sites. Specifically, we performed a set of network-based functional and sequence motif enrichment analyses on SARS-CoV-2-interacting human proteins and on PPI networks generated by supplementing viral-host PPIs with known interactions. Using a novel implementation of our GoNet algorithm, we identified 329 Gene Ontology terms for which the SARS-CoV-2-interacting human proteins are significantly clustered in PPI networks. Furthermore, we present a novel protein sequence motif discovery approach, LESMoN-Pro, that identified 9 amino acid motifs for which the associated proteins are clustered in PPI networks. Together, these results provide insights into the processes and sequence motifs that are putatively implicated in SARS-CoV-2 infection and could lead to potential therapeutic targets.

Publication Type

Journal article.

<735>

Accession Number

20203542908

Author

Stamatakis, G.; Samiotaki, M.; Mpakali, A.; Panayotou, G.; Stratikos, E.

Title

Generation of SARS-CoV-2 s1 spike glycoprotein putative antigenic epitopes in vitro by intracellular aminopeptidases. (Special Issue: Proteomics and its application in pandemic diseases.)

Source

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727

Journal of Proteome Research; 2020. 19(11):4398-4406. 45 ref.

Publisher

Location of Publisher

Country of Publication

Abstract

Presentation of antigenic peptides by MHCI is central to cellular immune responses against viral pathogens. While adaptive immune responses versus SARS-CoV-2 can be of critical importance to both recovery and vaccine efficacy, how protein antigens from this pathogen are processed to generate antigenic peptides is largely unknown. Here, we analyzed the proteolytic processing of overlapping precursor peptides spanning the entire sequence of the S1 spike glycoprotein of SARS-CoV-2, by three key enzymes that generate antigenic peptides, aminopeptidases ERAP1, ERAP2, and IRAP. All enzymes generated shorter peptides with sequences suitable for binding onto HLA alleles, but with distinct specificity fingerprints. ERAP1 was the most efficient in generating peptides 8-11 residues long, the optimal length for HLA binding, while IRAP was the least efficient. The combination of ERAP1 with ERAP2 greatly limited the variability of peptide sequences produced. Less than 7% of computationally predicted epitopes were found to be produced experimentally, suggesting that aminopeptidase processing may constitute a significant filter to epitope presentation. These experimentally generated putative epitopes could be prioritized for SARS-CoV-2 immunogenicity studies and vaccine design. We furthermore propose that this in vitro trimming approach could constitute a general filtering method to enhance the prediction robustness for viral antigenic epitopes.

Publication Type

Journal article.

<736>

Accession Number

20203542471

Author

Sanjay Kumar

Title

Use of cluster analysis to monitor novel coronavirus-19 infections in Maharashtra, India.

Source

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Abstract

OBJECTIVES: A novel coronavirus disease (COVID-19) has been continuously spreading in almost all the districts of the state Maharashtra in India. As a part of the healthcare management development, it is very important to monitor districts affected due to novel coronavirus (COVID-19). The main objective of this study was to identify and classify affected districts into real clusters on the basis of observations of similarities within a cluster and dissimilarities among different clusters so that government policies, decisions, medical facilities (ventilators, testing kits, masks, treatment etc.), etc. could be improved for reducing the number of infected and deceased persons and hence cured cased could be increased. Material AND METHODS: In the study, we focused on COVID-19 affected districts of the state Maharashtra of India. We applied agglomerative hierarchical cluster analysis, one of data mining techniques to fulfill the objective. Elbow method was used for obtaining an optimum number of clusters for further analysis. The study of variations among various clusters for each of the variables was performed using box plots. RESULTS: Results obtained from the Elbow method suggested three optimum numbers of clusters for each of the variables. For confirmed and cured cases, cluster I corresponded to the districts BI, GO, ND, PA, SI, WS, JN, CH, OS, HI, NB, JG, RT, LA, KO, AM, ST, BU, DH, AK, YTL, SN, AH, SO, AU, RG, NG, NS and PL. Cluster II corresponded to the districts TH and PU and cluster III corresponded to the district MC. For the death cases, cluster I corresponded to the districts BI, GO, ND, PA, SI, WS, JN, CH, OS, HI, NB, JG, RT, LA, KO, AM, ST, BU, DH, AK, YTL, SN, AH, SO, AU, RG, NG, NS, PL and TH. Cluster II corresponded to the district PU and cluster III corresponded to the district MC. CONCLUSIONS: The study showed that the district MC under cluster III was affected severely with COVID-19 which had high number of confirmed cases. A good percentage of cured cases were found in some of the districts under cluster I where six districts (GO, SI, CH, OS, SN) had 100% success rate to cure patients. It was observed that the districts TH, PU and MC under clusters II and III had severe conditions which need optimization of medical facilities and monitoring techniques like screening, closedown, curfews, lockdown, evacuations, legal actions, etc.

Publication Type

Journal article.

<737>

Accession Number

20203542387

Author

  Gopi Rajendhiran; Vikhram Ramasubramanian; Anusa Mohandoss Arunachalam; Parthiban Bijulakshmi; Pandian, R. S. P.

Title

  Influence of social media exposure on mental health in relation with COVID-19 pandemic in the state of Tamil Nadu, India.

Source

Publisher

Location of Publisher

Country of Publication

Abstract

  BACKGROUND: Social media has now become the main information sharing platform, even though its reliability is questionable. Undoubtedly most of the news related to this Covid-19 pandemic has been widely spread through social media. This study aims to assess the prevalence of mental health problems in relation to social media exposure. METHODS: A cross-sectional study was conducted via online survey through Google forms, from May 15th to May 25th 2020 among people aged 18 years and above in Tamil Nadu, India. Depression, Anxiety and Stress were measured by using DASS-21 (Depression, Anxiety and Stress Scale) and general health state was measured by GHQ 12 (General Health Questionnaire) along with sociodemographic details & social media exposure. Descriptive statistics were performed on sociodemographic data & Chi square analysis was performed to evaluate the magnitude of the association between social media exposure and psychological distress. RESULTS: In a total of 1200 respondents, 35.5% of people (427) were reported as often & most often exposed to social media and 37.9% of people were reported as 'sometimes' exposed to social media. DASS 21 domains revealed that there was some form (mild to severe) of depression in 34% of respondents, 37.1% having anxiety and 19.3% experienced stress, and its association with social media exposure was statistically significant. CONCLUSIONS: Social media exposure does have a high impact in people's perception about Covid-19 which has been significantly affecting public mental health. Controlling the spread & monitoring the reliability of the information in social media about Covid 19 would be a great help in managing the public mental health.

Publication Type

  Journal article.

<738>

Accession Number

 20203541958

Author

 Muhammad Atif; Iram Malik

Title

 Why is Pakistan vulnerable to COVID-19 associated morbidity and mortality? A scoping review.

Source

 International Journal of Health Planning and Management; 2020. 35(5):1041-1054.

Publisher

 Wiley

Location of Publisher

 Chichester

Country of Publication

 UK

Abstract

  The scoping review was undertaken to outline the vulnerabilities of Pakistan's public health and healthcare system, which put the population at increased risk of coronavirus disease 2019 (COVID-19) associated morbidity and mortality. The major electronic databases were searched using both "text words" and "thesaurus terms", focusing on viral infections, COVID-19 and healthcare systems in Pakistan. The content of the selected articles was analyzed by using thematic approach. Out of the total 171 potentially relevant citations, 24 articles were included in the data synthesis. We found that the recent COVID-19 outbreak is a major threat to Pakistan's public health and healthcare system, and the country is not in a position to control spread of disease and provide required standards of care deemed necessary by the World Health Organization. A number of intertwined reasons that expose the Pakistani population at increased risk of COVID-19 associated morbidity and mortality, include public related demurrals, healthcare workforce related demurrals, organizational and regulatory voids, and travel patterns. To cope with the upsurge of COVID-19 in Pakistan, the regulators need to re-examine and recognize deficiencies in the healthcare system, and thereafter reinforce core capacities in workforce and monetary resources, surveillance, laboratory services, and hospital preparedness for isolation and ventilation of patients.

Publication Type

 Journal article.

<739>

Accession Number

20203541951

Author

Huy Van Nguyen; Minh Van Hoang; An Thi Minh Dao; Nguyen, H. L.; Tien Van Nguyen; Phuong The Nguyen; Long Quynh Khuong; Phuong Mai Le; Gilmour, S.

Title

An adaptive model of health system organization and responses helped Vietnam to successfully halt the COVID-19 pandemic: what lessons can be learned from a resource-constrained country.

Source

International Journal of Health Planning and Management; 2020. 35(5):988-992. 9 ref.

Publisher

Wiley

Location of Publisher

Chichester

Country of Publication

UK

Abstract

Coping with the COVID-19 pandemic has been painful and no single model for such a purpose is perfect. However, sharing experiences is the best way for countries to learn real-time lessons and adapt to this rapidly changing pandemic. This commentary shares with the international community how an adaptive model of health system organization and responses helped Vietnam to break transmission of coronavirus. We find that an effective model is adaptive to time and context, and mobilizes and engages the wider society. We identify merging of different health system units into Center for Diseases Controls as a health system organization that saved massive resources. The early establishment of a formal committee responding to the pandemic helped unify every public health strategy. The mobilization of different stakeholders and communities added resources and facilitated a synchronous implementation of response strategies, even where those strategies involved significant personal or financial sacrifice. National training on Covid-19 treatment for healthcare professionals across the entire hospital system was useful to expand the health service availability. Quickly published response guidelines helped to activate every level of the health system and involve every sector of society. A strategy of keeping high alert and preemptive action is also essential for coping with the pandemic.

Publication Type

Journal article.

<740>

Accession Number

20203541938

Author

Bonacini, L.; Gallo, G.; Patriarca, F.

Title

Identifying policy challenges of COVID-19 in hardly reliable data and judging the success of lockdown measures.

Source

Journal of Population Economics; 2021. 34(1):275-301. 45 ref.

Publisher

Springer Berlin

Location of Publisher

Heidelberg

Country of Publication

Germany

Abstract

Identifying structural breaks in the dynamics of COVID-19 contagion is crucial to promptly assess policies and evaluate the effectiveness of lockdown measures. However, official data record infections after a critical and unpredictable delay. Moreover, people react to the health risks of the virus and also anticipate lockdowns. All of this makes it complex to quickly and accurately detect changing patterns in the virus's infection dynamic. We propose a machine learning procedure to identify structural breaks in the time series of COVID-19 cases. We consider the case of Italy, an early-affected country that was unprepared for the situation, and detect the dates of structural breaks induced by three national lockdowns so as to evaluate their effects and identify some related policy issues. The strong but significantly delayed effect of the first lockdown suggests a relevant announcement effect. In contrast, the last lockdown had significantly less impact. The proposed methodology is robust as a real-time procedure for early detection of the structural breaks: the impact of the first two lockdowns could have been correctly identified just the day after they actually occurred.

Publication Type

Journal article.

<741>

Accession Number

20203541932

Author

Dabholkar, Y. G.; Sagane, B. A.; Dabholkar, T. Y.; Shivakumar Divity

Title

Covid19 infection in health care professionals: risks, work-safety and psychological issues.

Source

Indian Journal of Otolaryngology and Head and Neck Surgery; 2020. 72(4):468-473. 22 ref.

Publisher

Springer

Location of Publisher

New Delhi

Country of Publication

India

Abstract

COVID-19 infection has spread widely over past 5 months to become a pandemic of global proportions affecting almost every country. While HCPs are expected to tackle this crisis by working in hospital and intensive care setting, there is real risk of them contracting infection and even dying. This article aims to report cases of healthcare personnel (HCPs) contracting COVID19 in various settings in a tertiary care hospital, a designated COVID centre, with view to disseminate information and review safety and psychological health issues of healthcare professionals. This study is a cross-sectional hospital-based survey from April 2020-June 2020. Data on demographics, workplace safety and psychological parameters from HCPs was collected by both interview and an online questionnaire form. A total of 40 healthcare workers were infected in the hospital in a period of 2 months since the first COVID case was admitted in the hospital. Almost 57.5% reported positive on several psychological parameters like anxiety, fear, anger, irritability and insomnia. About 42.5% had no psychological counselling after testing positive. These cases illustrate work-place risks for healthcare workers of acquiring COVID19 and highlight the problems faced in terms of risks of transmission to patients and colleagues, isolation of contacts in departments leading to near-breakdown of services and psychological stress to healthcare workers. Healthcare workers being at frontline of exposure to corona patients are at increased risk of developing COVID19 infections. Healthcare workers are working under tremendous stress in this pandemic and it is necessary to combat fear with facts and work towards safe work atmosphere so that they can discharge their duties to best of their ability.

Publication Type

Journal article.

<742>

Accession Number

20203541817

Author

Chai, P. R.; Ferro, E. G.; Kirshenbaum, J. M.; Hayes, B. D.; Culbreth, S. E.; Boyer, E. W.; Erickson, T. B.

Title

Intentional hydroxychloroquine overdose treated with high-dose diazepam: an increasing concern in the COVID-19 pandemic.

Source

Journal of Medical Toxicology; 2020. 16(3):314-320. 29 ref.

Publisher

Springer

Location of Publisher

New York

Country of Publication

USA

Abstract

Introduction: Recent attention on the possible use of hydroxychloroquine and chloroquine to treat COVID-19 disease has potentially triggered a number of overdoses from hydroxychloroquine. Toxicity from hydroxychloroquine manifests with cardiac conduction abnormalities, seizure activity, and muscle weakness. Recognizing this toxidrome and unique management of this toxicity is important in the COVID-19 pandemic. Case Report: A 27-year-old man with a history of rheumatoid arthritis presented to the emergency department 7 hours after an intentional overdose of hydroxychloroquine. Initial presentation demonstrated proximal muscle weakness. The patient was found to have a QRS complex of 134 ms and QTc of 710 ms. He was treated with early orotracheal intubation and intravenous diazepam boluses. Due to difficulties formulating continuous diazepam infusions, we opted to utilize an intermitted intravenous bolus strategy that achieved similar effects that a continuous infusion would. The patient recovered without residual side effects. Discussion: Hydroxychloroquine toxicity is rare but projected to increase in frequency given its selection as a potential modality to treat COVID-19 disease. It is important for clinicians to recognize the unique effects of hydroxychloroquine poisoning and initiate appropriate emergency maneuvers to improve the outcomes in these patients.

Publication Type

Journal article.

<743>

Accession Number

20203541463

Author

Kayina, C. A.; Damarla Haritha; Lipika Soni; Srikant Behera; Nair, P. R.; Gouri, M.; Kavitha Girish; Deeparaj, L.; Souvik Maitra; Anand, R. K.; Ray, B. R.; Baidya, D. K.; Rajeshwari Subramaniam

Title

Epidemiological & clinical characteristics & early outcome of COVID-19 patients in a tertiary care teaching hospital in India: a preliminary analysis.

Source

Publisher

Indian Council of Medical Research

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Background & objectives: In this study we describe the epidemiological data, comorbidities, clinical symptoms, severity of illness and early outcome of patients with coronavirus disease 2019 (COVID-19) from a tertiary care teaching hospital in New Delhi, India. Methods: In this preliminary analysis of a prospective observational study, all adult patients admitted to the screening intensive care unit (ICU) of the institute who fulfilled the WHO case definition of COVID-19 and confirmed to have SARS-CoV-2 infection by reverse transcription-polymerase chain reaction were included. Demographics, clinical data and 24 h outcome were assessed. Results: The preliminary analysis of 235 patients revealed that the mean age was 50.7+or-15.1 yr and 68.1 per cent were male. Fever (68.1%), cough (59.6%) and shortness of breath (71.9%) were the most common presenting symptoms. Hypertension (28.1%) and diabetes mellitus (23.3%) were the most common associated comorbid illnesses. Patients with mild, moderate, severe and critical illness were 18.3, 32.3, 31.1 and 18.3 per cent, respectively, at the time of ICU admission. The proportions (95% confidence interval) of patients requiring any form of oxygen therapy, oxygen therapy by high-flow nasal cannula and invasive mechanical ventilation were 77, 21.7 and 25.5 per cent, respectively, within 24 h of hospital admission. The 24 h ICU mortality was 8.5 per cent, and non-survivors had higher respiratory rate ($P < 0.01$, n=198) and lower baseline oxyhaemoglobin saturation ($P < 0.001$, n=198) at presentation and higher baseline serum lactate ($P < 0.01$, n=122), total leucocyte count ($P < 0.001$, n=186), absolute neutrophil count ($P < 0.001$, n=132), prothrombin time ($P < 0.05$, n=54) and INR ($P < 0.05$, n=54) compared to survivors. Interpretation & conclusions: Nearly half of the patients presented with severe and critical disease and required high-flow nasal oxygen or invasive mechanical ventilation at admission. Severity of the presenting respiratory illness, haematological parameters and lactate rather than age or presence of comorbidity predicted early death within 24 h.

Publication Type

Journal article.

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736

<744>

Accession Number

  20203541396

Author

  Arun Kumar; Munish Kapila; Ritu Pankaj

Title

  Medicine and law in the times of COVID-19 pandemic: understanding the interphase.

Source

  Indian Journal of Critical Care Medicine; 2020. 24(10):971-974. 20 ref.

Publisher

  Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  COVID-19 has heralded a wide set of challenges involving not only the medical management of the patients but also the legal dilemma with regards to provision of healthcare services. The medical professionals have experienced difficulty in balancing their obligations and duties toward the patients, and their own right to safeguard self, family, and their clinical establishments. The professional regulatory bodies and government have formulated new policies and amended laws to control the current situation. It is the need of the hour to be mindful of the existing laws and our rights and duties in the era of current pandemic. Collaborative efforts are needed to provide best possible care in the current unpredictable environment. The commonly encountered problems and their possible solutions are discussed in the context of medicolegal framework applicable to Indian medical practitioner.

Publication Type

  Journal article.

<745>

Accession Number

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737

20203541389

Author

Maddani, S. S.; Souvik Chaudhuri; Deepa, H. C.; Vedaghosh Amara

Title

A multicenter questionnaire-based study to know the awareness and medical treatment plan of physicians involved in the management of COVID-19 patients.

Source

Publisher

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Introduction: The pandemic coronavirus disease 2019 (COVID-19) is on the raise in our country and there is there is no specific treatment modality available presently. The treatment of the disease largely remains symptomatic but repurposed drugs used to treat other disease conditions are being used to treat moderate to severe form of the disease. As the clinical trials for these drugs are ongoing, we conducted this survey to know the physicians' medical treatment plan for COVID-19 patients. Materials and methods: It was a Web-based questionnaire study. Institutional ethical committee clearance was taken before the commencement of the study. There were a total of 17 questions, the first 6 being about the demographics, place of work, and whether the clinician was involved in the care of COVID-19 patients. Subsequent 11 questions were to assess physician's awareness and plan of the medical management of the COVID-19 patients. Results: The majority of the clinicians were aware of the various treatment modalities available for the treatment of COVID-19. Regarding the plan for use of hydroxychloroquine (HCQ), 55% of the total respondents intended to use the drug in combination with azithromycin, even as 62% agreed that there was no clear evidence yet. About 90% of all clinicians, from junior residents to consultants, were monitoring electrocardiogram (ECG) during HCQ therapy; however, there were 10% of physicians who were not practising ECG monitoring. About 68% of clinicians were aware of the various therapeutic options being tested, like convalescent plasma, lopinavir-ritonavir, and 64% knew about remdesivir. There was divergence regarding the use of steroids in a cytokine storm among the physicians, with only 39% of consultants planning to use steroids whereas about 50% of junior residents and 79% of junior consultants were planning to use the drug. Conclusion: The majority of the clinicians involved in the management of COVID-19 were aware of the various drug modalities available for treatment. However, more emphasis on the adverse effects and possible drug interactions is required. There is disaccord regarding the use of steroids in cytokine storm in COVID-19 and further guidelines and educational programs should address these issues. Clinical significance: Clinicians have to be made more aware of the possible adverse effects and drug interactions of the medications used for the treatment of COVID-19. The treatment of the serious, cytokine storm syndrome and the role of steroids must be elucidated as soon as it is feasible.

Publication Type

Journal article.

<746>

Accession Number

  20203541387

Author

  Jiandani, M. P.; Bela Agarwal; Gaurang Baxi; Sudeep Kale; Titiksha Pol; Anjali Bhise; Unnati Pandit; Shetye, J. V.; Abhijit Diwate; Umanjali Damke; Savita Ravindra; Prajakta Patil; Nagarwala, R. M.; Pratibha Gaikwad; Shabnam Agarwal; Kushal Madan; Jacob, P.; Surendran, P. J.; Narasimman Swaminathan

Title

  Evidence-based national consensus: recommendations for physiotherapy management in COVID-19 in acute care Indian setup.

Source

  Indian Journal of Critical Care Medicine; 2020. 24(10):905-913. 47 ref.

Publisher

  Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

  New Delhi

Country of Publication

  India

Abstract

  Background: With the Wuhan pandemic spread to India, more than a lakh of population were affected with COVID-19 with varying severities. Physiotherapists participated as frontline workers to contribute to management of patients in COVID-19 in reducing morbidity of these patients and aiding them to road to recovery. With infrastructure and patient characteristics different from West and lack of adequate evidence to existing practices, there was a need to formulate a national consensus. Materials and methods: Recommendations were formulated with a systematic literature search and feedback of physiotherapist experiences. Expert consensus was obtained using a modified Delphi method. Results: The intraclass coefficient of agreement between the experts was 0.994, significant at p < 0.001. Conclusion: This document offers physiotherapy evidence-based consensus and recommendation to planning physiotherapy workforce, assessment, chest physiotherapy, early mobilization, preparation for discharge planning, and safety for patients and therapist in acute-care COVID 19 setup of India. The recommendations have been integrated in the algorithm and are intended to use by all physiotherapists and other stakeholders in management of patients with COVID-19 in acute care settings.

Publication Type

  Journal article.

<747>

Accession Number

 20203541279

Author

 Khola Noreen; Muhammad Umar; Sabir, S. A.; Rehana Rehman

Title

 Outbreak of coronavirus disease 2019 (COVID-19) in Pakistan: psychological impact and coping strategies of health care professionals.

Source

 Pakistan Journal of Medical Sciences; 2020. 36(7):1478-1483. 22 ref.

Publisher

 Professional Medical Publications

Location of Publisher

 Karachi

Country of Publication

 Pakistan

Abstract

 Objective: This study was conducted to explore factors that can impact psychological health and coping strategies to help health care professionals (HCPs) to perform their duties. Methods: A cross sectional survey was conducted using structured questionnaire electronically shared with the participants after ethical approval. Descriptive statistics were calculated for socio demographic variables. Chi squared X2 test was used to compare the responses between different groups of HCPs. Results: Survey was completed by 250 participants. They performed their duties diligently during outbreak but were concerned about their safety, had fear of infecting themselves and their family members. Lack of evidence-based guidelines for patient management, news about pandemic situation through media and to deal with uncooperative patients not willing for quarantine added to their stress. receiving honour and respect from general public in recognition of services, monetary benefit, adequate training to treat COVID-19, provision of personal protective equipment from government were reported as coping strategies for psychological impact. Conclusions: COVID-19 outbreak had psychological impact on HCPs, yet they continued to perform their duties carefully as moral obligation. Continued moral with financial support and acknowledgement of their services by government, organization and general public was reported to have psychological benefit.

Publication Type

 Journal article.

<748>

Accession Number

  20203541217

Author

  Meng Long; Qiu Feng; Sun ShuSen

Title

  Providing pharmacy services at cabin hospitals at the coronavirus epicenter in China.

Source

  International Journal of Clinical Pharmacy; 2020. 42(2):305-308. 4 ref.

Publisher

  Springer

Location of Publisher

  Dordrecht

Country of Publication

  Netherlands

Abstract

  In the Chinese coronavirus epicenter, Wuhan, 16 cabin hospitals were built to admit patients with confirmed coronavirus infection (COVID-19). These cabin hospitals serve the role of effectively quarantine and treat mild cases of patients infected with COVID-19. Each cabin hospital has pharmacists to provide services and pharmaceutical care to patients. Pharmacists also provide assistance to cabin hospitals through remote internet platforms across China. In this commentary, we describe pharmacy services at cabin hospitals to share our experiences with the international pharmacy community.

Publication Type

  Journal article.

<749>

Accession Number

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741

20203541183

Author

Arpita Singh; Anuradha Singh

Title

Global pandemic: a boon for environment and planet myth or reality?

Source

International Journal for Research in Applied Science and Engineering Technology; 2020. 8(6):2183-2192. 18 ref.

Publisher

Indian Institute of Technology

Location of Publisher

Bombay

Country of Publication

India

Abstract

The novel coronavirus pandemic disease (COVID-19) poses a cruel preference to the world: the society and the economy. It has discovered the vulnerabilities and strengths of every country and has taught us a sequence of lifelong lessons. It was started in Wuhan, China and now spread all over the world. Most of the countries implemented lockdown in their countries to control this pandemic and slow down its spread. Lockdown due to COVID-19 has drastic outcomes on social and economic fronts. On the other hand, lockdown also has some positive impact on the natural environment. Coronavirus is a vaccine to the environment to which we humans are the virus. There are very positive effects on the environment since there has been a complete shutdown of public transport, educational institutes, business centers, and all other social interaction points. The air pollution, water pollution, noise pollution, etc have reduced a lot in these few months of lockdown which took place all over the world. According to the recent data released by NASA and ESA, the pollution in some of the epicenters of COVID-19 has reduced up to 30%. The second most populated nation, India has also seen a drop in the pollution level. While the complete shutdown of India's economy was done by our Prime Minister to stop the spread of this coronavirus, it is having an additional health benefit of clearing the air that millions of people were choking on. The Central Pollution Control Board of India's Environment Ministry has also shown a 71% decrease in the level of Nitrogen dioxide. The quality of the air will sooner be pure because of the less vehicular traffic and rise in temperature. This research paper will compile a deep study and analysis of the situation of the environmental pollution post this coronavirus and how due to the lockdown, a measure taken by the government to control this virus helped the environment to heal itself and reduce the pollution to some extent. Along with this, we will look after the effect of this virus on other countries and how it has affected the environmental status of those countries. A comparative study of the pollution will be done with the help of graphs and charts as well. A Study on the changes occurred in the ozone layer due to this environment change will also be dealt with. The researchers will also examine how far this control of the pollution will help and sustain.

Publication Type

Journal article.

<750>

Accession Number

 20203540710

Author

 Nendissa, D. R.; Olivana, T.; Herewila, K.; Chamdra, S.; Siubelan, Y. C. W.

Title

 Volatilities and trends of garlic price before and entering the COVID-19 pandemic in NTT.

Source

 Russian Journal of Agricultural and Socio-Economic Sciences; 2020. 9(105):154-162. 47 ref.

Publisher

 iVolga Press

Location of Publisher

 Orel

Country of Publication

 Russia

Abstract

 Disparities and price fluctuations in archipelagos regions such as NTT province can create inter-regional garlic price volatility. The distribution pattern of garlic trading in NTT is often hampered by limited marketing infrastructure, distribution network, and asymmetric information. This study measures the spillover volatility and the trend of garlic prices between regions in the NTT domestic market. This study uses time-series data onto garlic prices in Kupang City and Maumere City. Data period, price months from July 2016 to May 2020. The volatility analysis uses the ARCH/GARCH approach and the volatility spillover uses GARCH-BEKK. Analysis of price movements observed trends in price behavior before and entering the Covid-19 pandemic using graphical analysis. The study results concluded that the volatility of garlic prices in Kupang and Maumere is relatively low. Compared to the two regions, the price volatility in Maumereh is higher than in Kupang. The same thing happened to the level of price fluctuation in Maumere which was higher than in Kupang. Price volatility movements towards/away the two regions are not related to each other because these two regions receive garlic supplies outside NTT. Several factors can be the cause, including differences in marketing infrastructure, and different transportation networks between regions, the openness of price information. Therefore, transparency of price information and improvement of distribution networks to ensure the balance of supply and demand needs to be considered by all parties, especially regulators.

Publication Type

 Journal article.

<751>

Accession Number

20203539888

Author

Laws, E.; Koldowski, J.; Font, X.; Scott, N.; Angkawanish, T.; Brask, N.; Turner, D.; Rittichainuwat, B.; Rattanaphinanchai, S.; Roberts, J.

Title

Postscript: COVID-19 and elephant tourism, a preliminary analysis.

Source

The elephant tourism business; 2021. 269-275. 17 ref.

Publisher

CABI

Location of Publisher

Wallingford

Country of Publication

UK

Abstract

The COVID-19 pandemic had major and rapid consequences for tourism, ending almost all activity and causing immense problems for elephant tourism. This postscript provides an early review of the evolving situation. It looks at the effects of COVID-19 on international tourism and on elephant tourism camps, as well as the implications for poaching.

Publication Type

Book chapter.

<752>

Accession Number

20203538665

Author

  Liutikas, D.

Title

  Conclusions: pilgrimage during and after the pandemic crisis.

Source

  Pilgrims: values and identities; 2021. 239-250. 32 ref.

Publisher

  CABI

Location of Publisher

  Wallingford

Country of Publication

  UK

Abstract

  This chapter discusses the adaptability and resilience of the phenomenon of pilgrimage. This was particularly evident during the pandemic crisis. Alternative forms of pilgrimages, such as spiritual pilgrimage, virtual pilgrimage and hyper-real reality, replacements of travellers, and creation of sacred place in the home environment, are introduced. It is claimed that pilgrimages will be affected not only by the consequences of the global health situation and management of COVID-19, but also by various technological, social, environmental and legal factors in the near future.

Publication Type

  Book chapter.

<753>

Accession Number

  20203537210

Author

  Zheng XinXin; Liu TiaoTiao; Lei JiaNi

Title

  Analysis of food safety supervision and sampling inspection in Xianyang during prevention and control of COVID-19 pandemic. [Chinese]

Source

Journal of Food Safety and Quality; 2020. 11(21):8066-8071. 21 ref.

Publisher

Journal of Food Safety and Quality

Location of Publisher

Beijing

Country of Publication

China

Abstract

Objective: Use 6 rapid test products to quickly test the food in the jurisdiction during the prevention and control of COVID-19, and analyze the test results. Methods: Six kinds of rapid detection products were used to detect pesticide residues and clenbuterol in agricultural products, sulfur dioxide in food, aflatoxin B1, nitrite and suspended white mass. The positive products detected in rapid detection were supervised and randomly tested, and sent to the laboratory for testing in time. Results: A total of 1151 batches were completed in this quick test, including 824 batches of pesticide residues, 118 batches of sulfur dioxide, 70 batches of nitrite, a batch of aflatoxin B1 75, 10 batches of clenbuterol, 54 batches of hanging white block. Six batches of suspected positive products were detected, and one batch of confirmed positive samples was sent to the laboratory for reinspection. The overall qualification rate of rapid test was 99.48%. Conclusion: The rapid detection during the epidemic prevention and control effectively guaranteed the food safety in the jurisdiction, and combined the rapid food inspection with laboratory detection, forming complementary advantages.

Publication Type

Journal article.

<754>

Accession Number

20203533907

Author

Wang QingBin; Liu ChangQuan; Zhao YuanFeng; Kitsos, A.; Cannella, M.; Wang ShuKun; Han Lei

Title

Impacts of the COVID-19 pandemic on the dairy industry: lessons from China and the United States and policy implications. (Special Focus: Impacts of COVID-19 on agriculture and rural poverty in China.)

Source

Journal of Integrative Agriculture; 2020. 19(12):2903-2915. 23 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

   The purposes of this study are to assess the COVID-19 pandemic's impacts on the dairy industries in China and the United States and to derive policy recommendations for enhancing the diary industries' resilience to pandemics and other market shocks. Specifically, data from the two nations are used to analyze and compare the mechanisms through which the pandemic has affected their dairy industries and to discuss potential lessons from their experiences. The findings suggest that this pandemic has heavily affected the dairy industries in both China and the United States through similar mechanisms, such as decreased farmgate milk prices, disruption and difficulties of moving milk within the supply chains, worker shortages, increased production costs, and lack of operating capital. There were also significant differences in the affecting mechanisms between the two nations, including transportation difficulties from widespread road closures and significant reduction in holiday sales of dairy products in China, and the shutdown of many dairy processors in the United States due to the closing of schools, restaurants, and hotels. While government financial reliefs are highly needed to help many dairy farms and processors survive this pandemic in the short term, the dairy industries and governments need to work together to develop long-term strategies and policies to balance the industries' efficiency and flexibility, product specialization and diversification, supply chain integration and local food systems, and market mechanisms and policy regulations and interventions.

Publication Type

   Journal article.

<755>

Accession Number

   20203531921

Author

   Min Shi; Zhang XiaoHeng; Li GuCheng

Title

   A snapshot of food supply chain in Wuhan under the COVID-19 pandemic.

Source

   China Agricultural Economic Review; 2020. 12(4):689-704.

Publisher

Emerald Publishing

Location of Publisher

Bingley

Country of Publication

UK

Abstract

Purpose: The objective is to have a better understanding of the impacts of the COVID-19 pandemic on food supply chain in Wuhan. Design/methodology/approach: Through a simplified flow, the authors qualitatively analyze the impacts of the COVID-19 pandemic on food supply chain. Data was gathered through a telephone survey of food suppliers in Wuhan. Findings: The prevention measures of the COVID-19 pandemic had negative impacts on food supply chain in Wuhan. About 83.1% of food suppliers experienced a decrease in revenues. This is influenced by factors including food category on sale, purchase channel of food, food supplier's household registration and the number of the COVID-19 patients in the located community. Research limitations/implications: Due to the limitation of available data, there is a lack of quantitative analysis on the impact on food supply chain. The sample size of food suppliers is limited. Practical implications: This study identifies the challenges in the food supply chain resulting from the control measures implemented during the COVID-19 pandemic in Wuhan and provides a reference for the design of control measures in other regions. Originality/value: This study supplements the literature regarding the impact of public health emergencies such as the COVID-19 pandemic on food supply chain, especially food suppliers' revenues.

Publication Type

Journal article.

<756>

Accession Number

20203528130

Author

Chidambaram, S. K.; Daoud Ali; Saud Alarifi; Surendrakumar Radhakrishnan; Idhayadhulla Akbar

Title

In silico molecular docking: evaluation of coumarin based derivatives against SARS-CoV-2.

Source

Journal of Infection and Public Health; 2020. 13(11):1671-1677. 27 ref.

Publisher

Elsevier Ltd

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Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: The unique anthropological coronavirus which has been titled as SARS-CoV-2 was originally arisen in late 2019 in Wuhan, China affecting respiratory infection named as COVID-19. Coronavirus is disturbing human life in an exceptional method and has converted a public health global crisis. Natural products are ahead consideration due to the huge beneficial window and effective anti-inflammatory, immunomodulatory, antioxidant and antiviral possessions. Consequently, the present study was intended to display inhibition ability of natural products coumarins and their analogues against SARS coronavirus . Methods: The present study, aims to forecast theoretical assembly for the protease of COVID-19 and to discover advance whether this protein may assist as a target for protease inhibitors such as psoralen, bergapten, imperatorin, heraclenin, heraclenol, saxalin, oxepeucedanin, angelicin, toddacoumaquinone, and aesculetin . The docking score of these natural coumarin analogues compared with standard Hydroxychloroquine . Whereas the 3D assembly of main protease of SARS coronavirus was forecast with SWISS MODEL web server, and molecular interaction studies amongst target protein and ligands were done with AutoDock Vina software. Results: The study more exposed that all the inhibitors acquired with negative dock energy against the target protein. Molecular docking investigation displayed that natural coumarin analogue toddacoumaquinone displayed a remarkable inhibition ability with the binding energy of -7.8 kcal/mol than other compounds against main protease of SARS coronavirus in intricate with a-ketoamide (PDB ID: 5N5O). The synthetic coumarin analogue (1 m) also displayed the comparable inhibition ability with a binding energy of -7.1 kcal/mol against main protease of SARS coronavirus in intricate with a-ketoamide. Keeping the overhead results of ADME and toxicity, all tested compounds were recognized as drug-like nature, passing Lipinski's "Rule of 5" with 0 violation except a-ketoamide passes Lipinski's "Rule of 5" with 1 violation MW > 500. The projected constraints are within the assortment of recognized values. Conclusions: Based upon the results of the manifold sequence alliance, natural and synthetic coumarin binding sites were preserved. The present in silico examination thus, delivers structural awareness about the protease of COVID-19 and molecular relations with some of the recognised protease inhibitors.

Publication Type

Journal article.

<757>

Accession Number

20203524905

Author

Oliveira, J. R. de; Capraro, A. M.

Title

The implications of the COVID-19 pandemic on a sports tourist attraction: a case study on Futbol Club Barcelona. [Portuguese]

Source

Revista Iberoamericana de Turismo (RITUR); 2020. 10(2):165-186. many ref.

Publisher

Federal University of Alagoas

Location of Publisher

Penedo

Country of Publication

Brazil

Abstract

The Futbol Club Barcelona is a relevant tourist attraction in the city of Barcelona, has a significant tourist demand and positively influences the image of the destination. This study proposes an explanation of the implications of the Coronavirus pandemic in the club as a sports tourism attractive and the possible perspectives for the segment. Characterized as a Case Study, based mainly in a literature review, this article uses several sources for data collection: documents, bibliographic references, journalistic reports and audiovisual materials. It was possible to identify what the tourism and sport sectors suffer from the negative implications and, consequently, generating commercial and economic savings for tourist attractions, as in the case of Futbol Club Barcelona. In this scenario, the club adopted a series of measures and strategically carried out virtual and technological actions to recover part of its tourist attractions, for example, as guided tours through its stadium and museum. These innovations can execute a trend for the segment and, as discovered in this research, they can be subsidiaries for new research in this area of tourism, as well as in the analysis of strategies and policies for the recovery of this segment.

Publication Type

Journal article.

<758>

Accession Number

20203523997

Author

Bas, T. M.; Sevinc, M.; Ok, M.

Title

Coronavirus infection in cats. (Covid-19 ozel sayi.) [Turkish]

Source

Abstract

Coronaviruses (Coronaviruses; CoV) are among the important pathogens that threaten human and animal health. In humans, prominent diseases due to these viruses are severe acute respiratory syndrome (SARS), Middle East Respiratory syndrome (MERS) and SARS CoV-2 (Covid-19), which causes pandemics all over the world today. Feline infectious peritonitis (FIP) is a fatal disease in domestic and wild cats caused by coronaviruses (FCoVs). FCoVs; There are 2 biological types known as feline infectious peritonitis virus (FIPV) and feline enteric coronavirus (FECV). Although 90% of cat populations have antibodies against FCoVs, FIP develops in only 5-10% of cats infected with FCoV. There are two theories about the pathogenesis of FIP. The first of theory is the hypothesis that virulent and avirulent FCoV strains coexist in cat populations, and the second is the "in vivo mutation hypothesis". According to this hypothesis, In cats infected with apatogenic FCoV, the virus genome is spontaneously mutated. As a result of mutation, the virus gains the ability to replicate continuously in macrophages and this situation plays a key role in the pathogenesis of FIP. Clinically, antemortem diagnosis of FIP is still difficult. In cases without effusion, definitive diagnosis can only be made postmortem or invasive methods. Treatment of the disease is limited to palliative therapy. However, current treatment protocols can prolong survival. This review provides multidisciplinary information about the pathogenesis of the disease, diagnostic methods, current protocols and the virus.

Publication Type

Journal article.

<759>

Accession Number

20203523991

Author

Timurkan, M. O.; Aydin, H.

Title

Bioinformatics-aided identification of SARS CoV-2 (COVID-19). (Covid-19 ozel sayi.) [Turkish]

Source

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Publisher

Selcuk Universitesi Veteriner Fakultesi

Location of Publisher

Konya

Country of Publication

Turkey

Abstract

Current increase in discovery of coronaviruses and their sequenced genomes gave us a unique opportunity to make genomic and bioinformatic analyses of this virus family. Coronaviruses have one of the largest genomes (approx. 30 kb) among known RNA viruses. These viruses have various genes (Open Reading Fream 1ab, spike, envelope, membrane and nucleocapsid). Furthermore Coronaviridae family has 4 genera (Alphacoronavirus, Beta-, Delta- and Gamma-) with Betacoronaviruses consisting of 4 subgroups phylogenetically, namely A, B, C and D. 2003 SARS coronavirus is shown to have 4x10-4 ile 2x10-2 difference with its common ancestor annually in a molecular structural analysis using different gene loci of coronaviruses. Coronaviruses are also known to have genetic recombination. This type of genetic interaction is reported among different murine hepatitis viruses (MHV), among different infectious bronchitis viruses, between MHV and bovine coronaviruses, between feline coronavirus type 1 and canine coronavirus and among human coronaviruses. Thus we need reports on characterization of viruses by analyzing bioinformatically to investigate and to understand the ever changing virus interactions which are shaped by mutations and genetic changes. In this review we explained and discussed the current status and potential future possibilities of lesser known but much needed coronavirus bioinformatics. We provided a general perspective of present and frequently used techniques and summarized the main advantages and disadvantages of the use of bioinformatic analyses of SARS CoV-2 for virology field.

Publication Type

Journal article.

<760>

Accession Number

20203523773

Author

Ahalya, S. R.; Pushpalatha, E.

Title

IGR activity of three indigenous plants belonging to Asteraceae family and its potential role on control of filarial vector, Culex quinquefasciatus say (Diptera: Culicidae). (Special issue on COVID-19.)

Source

Journal of Communicable Diseases; 2020. 52(2):57-62. 10 ref.

Publisher

Advanced Research Publications (ADR)

Location of Publisher

Ghaziabad

Country of Publication

India

Abstract

Background: Insect Growth Regulatory and larvicidal role of three indigenous plants belonging to the family Asteraceae is tested against the filarial vector, Culex quinquefasciatus Say. Methods: IGR and larvicidal bioassays were conducted using methanol and water extracts of the selected plants such as Blumea mollis, Vernonia cinerea and Centratherum punctatum against I instar larvae of Cx. quinquefasciatus. Result: Lethal concentrations (LC50 and LC90) were estimated for methanol and aqueous extracts of the selected plants. Treatment with methanolic extracts exhibited prolonged larval and pupal duration, when compared to control. Total developmental period was also significantly extended. The larvae treated with aqueous extracts showed shortening of larval and pupal durations. Conclusions: The present study highlights the importance of plant-based materials and their efficacy to control the mosquito vectors with special to Culex quinquefasciatus. Treatment with methanol extracts of the selected plants showed extension of larval duration where as aqueous extracts show precocenes like activity and the total developmental period shortened with the emergence of almost 90% of the treated larvae.

Publication Type

Journal article.

<761>

Accession Number

20203523066

Author

Brosnan, J. T.; Chandra, A.; Gaussoin, R. E.; Kowalewski, A.; Leinauer, B.; Rossi, F. S.; Soldat, D. J.; Stier, J. C.; Unruh, J. B.

Title

A justification for continued management of turfgrass during economic contraction.

Source

Agricultural and Environmental Letters; 2020. 5(e20033). many ref.

Publisher

  Wiley

Location of Publisher

  Hoboken

Country of Publication

  USA

Abstract

  A novel coronavirus, termed COVID-19, spread worldwide and become a global pandemic in 2020. Forecasts show that COVID-19 will cause substantial economic contraction affecting almost every industry. Managed turfgrass, particularly in urban settings, has many positive societal and environmental benefits. In a contracted economy, will resources be available to manage turfgrass to achieve these benefits? In this paper, we outline the benefits of managed turfgrass on golf courses, playing fields, recreational parks, and urban landscapes to assist decision makers with resource allocation in the COVID-19 era.

Publication Type

  Journal article.

<762>

Accession Number

  20203519399

Author

  Ugur, N. G.; Akbiyik, A.

Title

  Impacts of COVID-19 on global tourism industry: a cross-regional comparison.

Source

  Tourism Management Perspectives; 2020. 36. 32 ref.

Publisher

  Elsevier B.V.

Location of Publisher

  Amsterdam

Country of Publication

  Netherlands

Abstract

   The tourism industry was one of the world's greatest markets; until the world met a pandemic in the 21st century, COVID-19. This study aims to present the reactions of travelers during the pandemic trends outlined by adopting text mining techniques. Between December 30, 2019-March 15, 2020, approximately 75,000 comments are retrieved from the TripAdvisor forums, and 23,515 cases from the US, Europe, and Asia forums are employed for analyses. The results reveal that the tourism sector is easily affected by global crises. It is almost the same day that travelers decide to cancel or delay their trips, with the spread of the news. More in-depth analyses uncovered several topics consisted of comments on benefiting from travel insurance and refund due to the travel cancellations. Travel insurance has become a hot topic, which may be a way of reanimating the industry by offering travel packages, including travel insurance services.

Publication Type

   Journal article.

<763>

Accession Number

   20203518401

Author

   Mantia, M. la; Koyyala, V. P. B.

Title

   The war against coronavirus disease 19 through the eyes of cancer physician: an Italian and Indian young medical oncologist's perspective.

Source

   Indian Journal of Medical and Paediatric Oncology; 2020. 41(3):305-307. 6 ref.

Publisher

   Medknow Publications

Location of Publisher

   Mumbai

Country of Publication

   India

Abstract

   Elderly patients and those with comorbid illnesses with COVID-19 infection have poor outcomes. Cancer patients are immunosuppressed, and at an increased risk of COVID-19 infection and have worse outcomes as compared to the general population. The mortality rate of COVID-19 among oncology patients is about 20%. Young oncologists are guided by the national and international cancer societies through guidelines

that are adapted during this pandemic for the safety of patients and physicians. The number of registered cases of COVID-19 in Italy was 162,488 as of April 14th, the third highest globally behind the United States and Spain, according to the data of Istituto Superiore di Sanita. As Italy's death toll passed 18,279 on April 10th, the Italian government announced the lockdown to be extended until early May. The deaths included more than 17,000 frontline health-care workers, who were in this war against the Novel Corona Virus. The Italian health-care system, known as Servizio Sanitario Nazionale, provided an immediate, efficient, and effective solution to this crisis. It is increasing intensive care unit capacity and recruiting doctors, nurses, and medical staff for the emergency CoV task force, which included retired doctors, medical graduates, and residents. Embracing the Hippocratic Oath, over 7000 retired doctors came to fight against this deadly virus. Standing by and watching are impossible for those who face pain every day, even if they are recent medical school graduates. They were all ready to go in the frontline fight against COVID, where the need is greatest, learning daily, as this crisis is a new experience even for specialists with 20 years of experience. Unfortunately, the number of doctors who have died of COVID-19 infection reached 121 as on April 15, 2020, according to the Italian doctors' federation Federazione Nazionale degli Ordini dei Medici Chirurghi e Degli Odontoiatri. The reasons include a shortage of personal protective equipment (PPE) and the lack of COVID-19 diagnostic kits. In Italy, where one of the highest numbers of cases was reported, there was no assault on health-care workers. However, despite the pessimistic instances in India, the determination of cancer patients and the iron will of oncologists to care for patients resulted in the continuum of cancer care. One instance I faced was a 25-year-old young female who drove 800 km for her mother's treatment, chemotherapy for locally advanced breast cancer, clearing through 28 police check posts in the lockdown from the interior village in Uttarakhand. Another 65-year-old gentleman pedaled 140 km with his wife tied to his back, to prevent her from falling down, to reach Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, for chemotherapy. Such heartwarming tales keep us inspired and continue cancer care during this deadly pandemic.

Publication Type

  Journal article.

<764>

Accession Number

  20203509803

Author

  Ortblad, K. F.; Mogere, P.; Bukusi, E.; Ngure, K.; Baeten, J. M.

Title

  Pharmacy delivery to expand the reach of PrEP in Africa.

Source

  Journal of the International AIDS Society; 2020. 23(9). 14 ref.

Publisher

  Wiley

Location of Publisher

Oxford

Country of Publication

UK

Abstract

To end the HIV epidemic, access to HIV prevention and treatment services must increase in high HIV prevalence African settings. Standard facility-based models of HIV prevention and care are not currently reaching all the populations at risk of or living with HIV. The global coronavirus disease 2019 (COVID-19) epidemic further pushes health systems to consider more client-friendly services. Pharmacy-based PrEP delivery in Africa is timely and has great potential to reach individuals not currently engaged in PrEP care and make PrEP more accessible to individuals at risk of HIV infection. This brief article discusses the ability of African health systems to maximize PrEP access through finding novel models of PrEP delivery.

Publication Type

Journal article.

<765>

Accession Number

20203505670

Author

Escalante, C. L.; Luo TianYuan; Taylor, C. E.

Title

The availability of H-2A guest farm workers during the COVID-19 pandemic. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3). 36 ref.

Publisher

American Agricultural Economics Association

Location of Publisher

Ames

Country of Publication

USA

Abstract

During the COVID-19 pandemic, the government ensured continued processing of H-2A visa applications. H-2A worker arrivals, however, were disrupted by travel bans, strict medical screening at ports of entry, and virus outbreaks at the border. Labor could be a disrupting factor as farms strive to meet sustained demand during the pandemic.

Publication Type

Journal article.

<766>

Accession Number

20203505669

Author

Farnsworth, D.

Title

U.S. COVID-19 policy affecting agricultural labor. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3). many ref.

Publisher

American Agricultural Economics Association

Location of Publisher

Ames

Country of Publication

USA

Abstract

The COVID-19 pandemic has disrupted supply chains and necessitated government intervention. This article discusses U.S. government policies affecting the supply and demand of agricultural labor. The predicted effect of these policies is to decrease the availability, efficiency, and overall productivity of these essential workers.

Publication Type

Journal article.

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<767>

Accession Number

  20203505668

Author

  Pena-Levano, L.; Burney, S.; Adams, C.

Title

  Labor disruptions caused by COVID-19 in the U.S. agriculture and nonfarm industries. (Special Section: COVID-19 and the agriculture industry: labor, supply chains, and consumer behavior.)

Source

  Choices. The Magazine of Food, Farm, and Resources Issues; 2020. 35(3). many ref.

Publisher

  American Agricultural Economics Association

Location of Publisher

  Ames

Country of Publication

  USA

Abstract

  Since the onset of the coronavirus pandemic, unemployment has surged in many sectors of the economy. While unemployment in food services is largely the product of demand-side shocks, such as restaurant and school closures, unemployment in food processing and production is related to supply-side factors such as issues of worker safety.

Publication Type

  Journal article.

<768>

Accession Number

  20203505105

Author

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759

Capoluongo, E. D.; Amato, F.; Castaldo, G.

Title

The friendly use of chloroquine in the COVID-19 disease: a warning for the G6PD-deficient males and for the unaware carriers of pathogenic alterations of the G6PD gene. (Special Issue: Critical role of laboratory medicine in the global response to the COVID-19 pandemic.)

Source

Clinical Chemistry and Laboratory Medicine; 2020. 58(7):1162-1164. 8 ref.

Publisher

Walter de Gruyter

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

There is a great debate regarding the usefulness and efficacy of this medication in anti-viral treatment: chloroquine is not included in the panel recommended for HIV treatment, while its modest effect in the therapy of human virus infection is reported for chronic hepatitis C. These findings did not allow for its inclusion in the standardised therapeutic protocols for hepatitis C patients. The benefits of chloroquine therapy strongly depend on: (i) the age of the patient; (ii) the clinical presentation and (iii) the stage of the COVID-19 disease. Noteworthy, the use of this drug is contraindicated in some conditions, particularly the glucose-6-phosphate dehydrogenase (G6PD) deficiency. The latter is a condition that has not been deeply taken into account particularly when, on the web, there has been a "viral" spread of news emphasizing the safe use and the free availability of chloroquine. Therefore, before establishing that the use of chloroquine in the treatment of SARS-CoV-2 could represent a good option in light of such announcements, we should not miss the following important information that limit the friendly access to the drug: (a) G6PD is a housekeeping enzyme that, in the red blood cell (RBC), guarantees the production of NADPH, which is required to preserve glutathione in the reduced state (GSH), (b) G6PD deficiency shows marked genetic heterogeneity. In this regard, we have reported more than 186 mutations, (c) G6PD deficiency is a necessary but not sufficient condition for the occurrence of clinical manifestations: the incidence of clinically evident favism in a group of randomly selected enzymopenic individuals resulted to be less than 30%, (d) the estimated number of G6PD-deficient individuals is close to 400 million people worldwide, while the number of pathogenic gene variants is generally concentrated in a small group of variations that can be easily detected in reference laboratories, and (e) as the rate of deficient RBCs in heterozygote carriers is not predictable a priori, potential individual clinical complications can strongly be proportional to the fraction of the number of G6PD-imbalanced RBCs. Moreover, the majority of G6PD-deficient subjects do not show clinical manifestations in the steady state and the condition remains undetected until they are exposed to an exogenous haemolytic trigger such as bacterial or viral infections, ingestion of fava beans (favism) or drugs, mainly the hydroxychloroquine.

Publication Type

Correspondence.

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760

<769>

Accession Number

  20203500403

Author

  Neghab, H. K.; Azadeh, S. S.; Soheilifar, M. H.; Dashtestani, F.

Title

  Nanoformulation-based antiviral combination therapy for treatment of COVID-19.

Source

  Avicenna Journal of Medical Biotechnology; 2020. 12(4):255-256. 14 ref.

Publisher

  Avicenna Research Institute

Location of Publisher

  Tehran

Country of Publication

  Iran

Abstract

  This article hypothesized that the use of PLGAPEG copolymer to deliver two or more antiretroviral drugs to suppress viral entry and viral replication by DX600 and Ribavirin, respectively can be a promising tool in treatment of coronavirus. Moreover, PLGAPEG copolymer has the potential to be applied as a nanocarrier agent for codelivery of any antiviral drugs to target tissue and consequently promotes the CART in living organisms. So, by including nanoparticles (NPs) in drug formulations, the efficacy, safety, and dose of administered drug would be improved. The formidable barriers for gastrointestinal tract, skin and cell have limited the therapeutic effects of antiviral drugs. For example, functionalized single-walled carbon nanotubes were used as a nanodrug carrier for ribavirin for the treatment of viral diseases in fish. The results show that ribavirin intake was increased by nanocarrier and therapeutic dosage was significantly reduced. Several researches have been conducted about antiviral drug delivery nanosystems and their transport across specific barriers at cellular and intracellular level. Furthermore, improving the antiretroviral agents' delivery could overcome some probable limitations of current CART.

Publication Type

  Correspondence.

<770>

Accession Number

 20203498059

Author

 Diaz, L. A.; Garcia-Salum, T.; Fuentes-Lopez, E.; Ferres, M.; Medina, R. A.; Riquelme, A.

Title

 Symptom profiles and risk factors for hospitalization in patients with SARS-CoV-2 and COVID-19: a large cohort from South America.

Source

 Gastroenterology; 2020. 159(3):1148-1150. 8 ref.

Publisher

 Elsevier Inc

Location of Publisher

 New York

Country of Publication

 USA

Abstract

   This article established the frequency and impact of GI symptoms, and viral presence in stools among Chilean patients infected with SARS-CoV-2. In Chile, there were 82,271 tests performed to detect SARS-CoV-2, and 7213 (8.8%) were positive by April 11, 2020, accounting for an incidence of 37.1 cases per 100,000 inhabitants. This included 7016 in the analysis (97.3% of patients confirmed nationally). The median age was 40 years, and 50% were female individuals. The most common symptoms were cough (53.4%), myalgia (56.4%), and fever (43.9%). Diarrhea was reported in 7.3%, and 3.7% had abdominal pain. A total of 1155 patients were hospitalized (16.5%): 716 (62%) were in a general ward, 439 (38%) were in an intensive care unit, and 328 (28.4%) required mechanical ventilation. At the end of this study, 80 deaths had occurred (mortality rate 1.1%). In Chile, 7.3% of patients with SARS-CoV-2 reported diarrhea and 3.7% abdominal pain. A significant percentage of our population required hospitalization, reaching a low mortality rate of 1.1%. The presence of diarrhea was associated with a higher risk of hospitalization, increasing the risk by 31%; however, abdominal pain was not associated with a higher risk of hospitalization. In our convenience cohort, we determined that 50% of patients had detectable stool viral RNA during illnesses, and patients with diarrhea had higher stool RNA positivity than those without diarrhea.

Publication Type

 Journal article.

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762

<771>

Accession Number

  20203497691

Author

  Derunova, E.; Kireeva, N.; Pruschak, O.

Title

  The level and quality of inclusive growth agri-food system in modern conditions.

Source

  Scientific Papers Series - Management, Economic Engineering in Agriculture and Rural Development; 2020. 20(3):193-206. 31 ref.

Publisher

  University of Agronomic Sciences and Veterinary Medicine of Bucharest

Location of Publisher

  Bucharest

Country of Publication

  Romania

Abstract

  With regard to the agri-food system, the theoretical and methodological basis for the study of inclusive development has been substantiated. The study reveals the concept of inclusive development of the agri-food system, substantiates criteria and indicators, and proposes assessment methods. New risks associated with the COVID-19 pandemic are analyzed in the development of the agro-food system, which has aggravated the existing systemic problems and negatively affected the quality of life of Russians. A comparative analysis of the quality of inclusive development of the agri-food systems of the Saratov region and Russia in the context of the main blocks: growth and development, the fairness of distribution of public goods between all strata and groups of the population, the involvement of all forms of management, food security, environmental sustainability. An integral indicator of the level and quality of inclusive development of the agri-food system of Russia and the Saratov region was calculated. Measures are formulated to facilitate the transition of the agri-food system to an inclusive development model and overcome negative trends in the post-pandemic economy.

Publication Type

  Journal article.

<772>

Accession Number

20203491772

Author

Lotta, G.; Wenham, C.; Nunes, J.; Pimenta, D. N.

Title

Community health workers reveal COVID-19 disaster in Brazil.

Source

Lancet (British edition); 2020. 396(10248):365-366. 14 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In some municipalities, CHWs have been asked to work remotely, using telemedicine and social networks to keep in touch with families. In other municipalities, they have been tasked with responsibilities that go beyond their routine work, such as ensuring physical distancing regulations are adhered to in public spaces. CHWs with chronic diseases have been told to stay at home in some municipalities, whereas in others they have been instructed to keep doing their job. These contradictions and inconsistencies have not been resolved, and the ministry of health is yet to provide further guidance about how primary health care should be reorganised during the pandemic. The national response is, in practice, being guided by developments at the local level, without any semblance of central coordination. The reactions of Bolsonaro's Government to COVID-19 have ranged from denialism, peddling of unproven therapies, and attacks on his political opponents and the WHO. Brazil has seen two health ministers leave their posts during the pandemic and a data blackout intended to cover up case numbers and mortality. The situation with CHWs reveals how lack of leadership translates into inadequate local-level responses to COVID-19. CHWs are in many respects the "canary in the coal mine" of the SUS. Their low salary and precarious working conditions reflect long-standing resource difficulties of the health system and the lack of political commitment to health as a public good. The uncertain working conditions of CHWs indicate the disarray of the SUS in the face of the COVID-19 pandemic. The failure to prepare and protect CHWs undermines physical distancing measures, places them at risk, and contributes to the neglect of marginalised groups, including the poor, the elderly, and the unhoused. As the length of the crisis increases, so will the burden of chronic diseases and mosquito-borne diseases such as dengue and Zika virus disease, which are not receiving enough attention in the pandemic. The present position of CHWs shows the full extent of the public health disaster in Brazil.

Publication Type

Journal article.

<773>

Accession Number

  20203491766

Author

  Al-Saidi, A. M. O.; Nur, F. A.; Al-Mandhari, A. S.; El-Rabbat, M.; Assad Hafeez; Abubakar, A.

Title

  Decisive leadership is a necessity in the COVID-19 response.

Source

  Lancet (British edition); 2020. 396(10247):295-298. 22 ref.

Publisher

  Elsevier Ltd

Location of Publisher

  Oxford

Country of Publication

  UK

Abstract

  Effective leaders believe in a partnership-driven solidarity response to the pandemic. It starts with adherence to the measures defined by the International Health Regulations (2005). Transparency in sharing data is crucial, as shown by South Korea, which shared relevant information with agencies such as WHO from its first confirmed case. More countries have shown solidarity in financial support, donations of medical supplies, and sharing expertise at this time of unprecedented crisis. Saudi Arabia, for example, has donated financially to pandemic response efforts, while Cuba has sent doctors to other countries to support their response. Partnership among countries is essential for obtaining faster results in COVID-19 treatment and vaccine clinical trials and WHO is supporting global partnerships through its Solidarity Fund, COVID-19 Supply Chain System, and Solidarity Trial. A pandemic that presents a global threat requires all leaders to step up and cooperate in decisive action. In the months to come, in the EMR and beyond, our sustained effort to save lives and mitigate the socioeconomic impact of COVID-19 must promote the role of decisive, open, and compassionate leadership. In countries where large numbers of infections are still being reported, it is time that leaders acknowledge the importance of rapidly acting on the best available evidence with transparency, a responsibility that is particularly crucial in low-income and fragile settings. Leaders must act decisively in the COVID-19 response with whole-of-government and whole-of-society approaches.

Publication Type

  Journal article.

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765

<774>

Accession Number

  20203490675

Author

  Kleinmann, C. M.

Title

  Do we really want sports public relations to return to normal? (Special Issue: Sport and the coronavirus crisis.)

Source

  International Journal of Sport Communication; 2020. 13(3):586-592. 14 ref.

Publisher

  Human Kinetics

Location of Publisher

  Leeds

Country of Publication

  UK

Abstract

  Sports public relations has long been used to promote the big game and highlight key players. Then, the coronavirus crisis halted sports, and the constant stream of public relations content fell silent. There was no game to hype, no sports moment to celebrate. This essay is about the public relations lessons learned during the pandemic. It discusses how sports public relations prior to COVID-19 often valued relational breadth over depth. As a result, sports public relations operated at a superficial level of momentary engagements sustained by creative content rather than the deeper relational connections that public relations purport. The essay then illustrates how COVID-19 cultivated opportunities for relational breadth and depth to grow between players and fans. Finally, the essay questions if we really want sports public relations to return to normal or if sports public relations professionals should incorporate these lessons into sustainable, postpandemic public relations practice.

Publication Type

  Journal article.

<775>

Accession Number

20203490661

Author

  Feder, L.

Title

  From ESPN to Instagram LIVE: the evolution of fan-athlete interaction amid the coronavirus. (Special Issue: Sport and the coronavirus crisis.)

Source

  International Journal of Sport Communication; 2020. 13(3):458-464. 15 ref.

Publisher

  Human Kinetics

Location of Publisher

  Leeds

Country of Publication

  UK

Abstract

  With sporting events canceled and Safer at Home orders in place, both athletes and sports fans have a void to fill. Consequently, social media use by both parties has increased. Athletes have become more active and interactive online, which may serve to strengthen parasocial relationships between them and their fans. These connections could develop to the extent that the line between parasocial relationship and friendship is blurred. Will stronger ties between athletes and fans be a by-product of COVID-19? In this editorial, the author builds an argument for the plausibility of this result by linking published studies regarding sports fandom and parasocial relationships to current trends in athletes' use of social media. The author then raises questions regarding the future of sports fandom, which can be assessed once athletics resume. To conclude, the author offers practical recommendations to sports organizations coming out of COVID-19-related suspensions.

Publication Type

  Journal article.

<776>

Accession Number

  20203490442

Author

  Giannopoulos, A.; Skourtis, G.; Kalliga, A.; Dontas-Chrysis, D. M.; Paschalidis, D.

Title

  Co-creating high-value hospitality services in the tourism ecosystem: towards a paradigm shift?

Source

Publisher

  Alexander Technological Institute of Thessaloniki

Location of Publisher

  Thessaloniki

Country of Publication

  Greece

Abstract

  Purpose: Adopting the service-ecosystem perspective, this is the first empirical study conceptualising tourism as an ecosystem. Based on the institutional theory and focusing on high-value hospitality services, it aims to unveil the components of the multilayer tourism ecosystem that enable stakeholders' interactions at and between different levels. Methods: Applying a qualitative research design in Rhodes, the study focuses on value co-creation to explore the structure of the tourism ecosystem and its underlying mechanisms. Triangulation and bracketing were employed to ensure the reliability of the data collected through ten semi-structured interviews with highranking tourism policy-makers and hotel/restaurant managers. Results: The results led to the identification of the three-level service ecosystem (micro, meso, macro) that incorporates myriads of actions and interactions shaping tourism activity in order to provide high-value hospitality services. The analysis also revealed the institutional logic that permeates all levels (rules, norms, practices, meanings and symbols). Implications: The study goes beyond the destination-visitor and firm-guest interactions to incorporate multiple stakeholders co-creating value in the tourism ecosystem, including tourists, locals and employees, hotels and restaurants, DMOs and other organisations supporting the tourism value chain. It sheds light on the new paradigm shift from the notion of tourism industry to the concept of an inclusive tourism ecosystem, paving the way for future research to address global challenges in the COVID-19 era.

Publication Type

  Journal article.

<777>

Accession Number

  20203469812

Author

Su ZhaoHui; McDonnell, D.; Ahmad, J.; Cheshmehzangi, A.; Li XiaoShan; Meyer, K.; Cai YuYang; Yang Ling; Xiang YuTao

Title

Time to stop the use of 'Wuhan virus', 'China virus' or 'Chinese virus' across the scientific community.

Source

BMJ Global Health; 2020. 5(9). 15 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

The use of phrases such as 'Wuhan virus', 'China virus' and 'Chinese virus' is prevalent, even among academics. Considering the fact that, to date, no evidence shows that SARS-CoV-2 was originated in Wuhan, the use of these phrases to refer to SARS-CoV-2 is unjustifiable and unscientific. In this paper, the study discussed how the use of these terms violates the research ethics proposed by the National Institute of Health, ranging from objectivity to responsibility. In addition, the study emphasised the fact that these phrases are discriminatory and can have a negative impact on Wuhan and Chinese people's health and well-being. The study concluded by calling for ceasing to use these phrases, as fundamentally, they are misleading and can distract the public's attention from the most important issue of the day: how to stop the virus from spreading.

Publication Type

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