

## Literature Search Request

<p><b>Search strategy</b></p> <p>CAB Abstracts on the OVID interface</p>	<p>Database: CAB Abstracts &lt;2000 to 2020 Week 30&gt;</p> <p>Search Strategy:</p> <p>-----</p> <p>1 ('covid 19' or 'novel coronavirus' or 'sars-cov-2').mp.</p> <p>2 limit 1 to yr="2010 -Current" (671)</p> <p>*****</p> <p>[mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]</p>
<p><b>Date of coverage</b></p>	<p>&lt;2000 to 2020 Week 30&gt;</p>

### Search results

	Date searched	No of items found
CAB Abstracts	3/8/2020	671

### References from CAB Abstracts

<1>

Accession Number

20203319300

Author

Sadeghi, A.; Lankarani, K. B.

Title

Iranian national guideline on endoscopy during COVID-19 pandemic. [Persian]

Source

Govaresh; 2020. 25(1):fa31-fa37. 26 ref.

Publisher

Iranian Association of Gastroenterology and Hepatology & Shiraz University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

This guideline was developed to assure the highest level of protection against COVID-19 for both patients and health care providers in endoscopy departments while providing high quality and timely gastroenterology care during the current COVID-19 pandemic. We electronically searched the databases of PubMed, Google Scholar, and MedRxiv up to April 10, 2020. Then, a questionnaire was designed based on available documents and international recommendations. Three Delphi rounds were conducted via online forms. Eighteen statements were developed on risk stratification of patients and procedures and recommendations for performing necessary procedures while safeguarding patients, nurses, physicians and other service providers with appropriate use of personal protection equipment, sanitizing of environments and redesigning the endoscopy suits. Considering the dynamic of COVID-19 pandemic in the world and Iran, this guideline will be updated online as needed.

Publication Type

Journal article.

<2>

Accession Number

20203312416

Title

Special Edition: COVID-19. (Edição Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3):article 1-article 17.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

This special issue offers reflections on the COVID-19 pandemic and its implications for hospitality and tourism. The economic and emotional impacts of the pandemic, the issue of sustainability, and the future of tourism are addressed, among others.

Publication Type

Journal issue.

<3>

Accession Number

20203312415

Author

&Aacute;vila, N. F. de; Baptista, M. L. C.

Title

Operation 'survivors!' intertwining with lovingness, autopoiesis and weave-communication in 'home times' resulting from the Covid-19 pandemic. (Edi&ccedil;&atilde;o Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)27 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The paper combines verbal and visual narratives, to reflect on communication, relationships and tourism, in 'home times', resulting from the Covid-19 Pandemic. It is a theoretical-empirical, qualitative study, from the perspective of lovingness, autopoiesis and weave-communication, based on the methodological strategy of Knowledge Cartography. Photographs shared via WhatsApp and theoretical references from the complex ecosystem perspective, were gathered to dialogue with the perceptions of subjects of the place. The result is a web of sensibilities, reflective and expressive of a time when we seek to be 'survivors!'.

Publication Type

Journal article.

<4>

Accession Number

20203312413

Author

Baptista, M. L. C.; Melo, C. C. de; Bernardo, J. dos S.; Picinini, R.; Sandi, S. M.; Santos, J. A.; Hammes, C. E. H.; Dannenhauer, K.; Eme, J. B.

Title

For a more loving and autopoietic world! Reflections Amorcomtur! During pandemic COVID-19. (Edição Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)many ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The text is a collective production by Amorcomtur! Study Group on Communication, Tourism, Lovingness and Autopoiesis, reflecting on challenges and signs of a worldwide post-pandemic, based on research that was announced like for Reverse Side of Turismo. The group works with transdisciplinary theoretical references, in the perspective of the Ecosystem Complexity of Contemporary Science, guided by the holistic view. A methodological strategy is the Cartography of Knowledge, associated with rhizomatic matrices (Baptista, 2014, 2017, 2020), for qualitative research, both in its process and in the production of its narratives. Covid's 19 Pandemic meant the sudden emergence of brakes on capitalistic processes, which had been marking the tourist-communicational-subjective ecosystems, in the most diverse territories and dimensions, reaching the planetary scale, which we understand as maximum alerts, in the sense of the need to emergence of a more loving and autopoietic world, guided by ecosystemic responsibility.

Publication Type

Journal article.

<5>

Accession Number

20203312412

Author

S&aacute;, F. Z. de

Title

Mobility of scientific production on tourism and COVID-19. (Edi&ccedil;&atilde;o Especial: COVID-19.)  
[Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)12 ref.

Publisher

Universidade de Caxias do Sul

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Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The COVID-19 pandemic has highlighted novelties in socio-cultural, political, urban and tourist issues, due to globalization, mass consumption and mobility. In this context, the text presents reflections of bibliographic research in the databases with the terms Tourism, COVID-19 and Coronavirus. The articles found are of international origin and introduce discussions that include the terms, reallocating them in investigations already under development. The papers, when discussing the relationships associated with tourism during and after COVID-19, look for possible answers and gaps. Reflections on sustainability, the economy, the prefigurations of tourism and the relationships that are likely to be established in the post-COVID-19 are underway.

Publication Type

Journal article.

<6>

Accession Number

20203312411

Author

Guimarães, V. L.; Catramby, T.; Moraes, C. C. de A.; Soares, C. A. L.

Title

Covid-19 pandemic and higher education in tourism in the state of Rio de Janeiro (Brazil): preliminary research notes. (Edição Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)17 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The paper presents the initial reflections of a research project that seeks to discuss with the academic community of Tourism in Brazil the directions of higher education in the area, considering the sudden world transformations underway, accelerated by the pandemic of Covid19. In this phase, higher education in Tourism was contextualized in the last decades until the dramatic situation experienced with the pandemic. This empirical research favored higher education courses in Tourism in the state of Rio de Janeiro. Listening channels were built to listen the actors involved, with questionnaires being the main instrument for data collection. The situations experienced, the doubts, anxieties and hopeful speeches (or not) of teachers, students and course coordinators about the tourism phenomenon, including its academic dimension, reveal signs for a deeper reflection of the necessary transformations in higher education in Tourism, aiming to respond to the new global challenges that are reflected in this field.

Publication Type

Journal article.

<7>

Accession Number

20203312410

Author

C&eacute;sar, P. de A. B.; Ribeiro, A. de F.; Moraes, M. P.

Title

The emotional impact and its relations in the built environment with the traveler and resident confrontation in times of pandemic [and after]. (Edi&ccedil;&atilde;o Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)17 ref.

Publisher

Universidade de Caxias do Sul

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Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

In this article the subject is the traveler. In this sense, the traveler is associated with the pleasure of traveling, but now he faces a completely new environment with the pandemic and its consequences, in particular, the transmission of COVID-19. In this paper, the recognition of fear, anxiety and stress, is confronted, as a mental health strategy, with the appropriation of the built environment, considering the expectations of this new environment.

Publication Type

Journal article.

<8>

Accession Number

20203312409

Author

Ferreira, L. T.; Santos, M. M. C. dos; Silva, A. N. da; Bacim, G.

Title

COVID-19: the foreigner who imposed among us. (Edição Especial: COVID-19.)  
[Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)13 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication



Brazil

Abstract

This paper rehearses reflections on spaces of hospitality and hostility, from the pandemic development generated by Covid-19. The virus is the foreigner who, disrespecting any rites and hospitality relations, imposes itself, altering and subverting everyday scenes. The responses to these changes are the most diverse and revealing of our humanity. In labor relations, there have been changes that may last after the pandemic period. The virus is an unwanted guest that exposes us and that changes our relationships with our body, with others and with space.

Publication Type

Journal article.

<9>

Accession Number

20203312408

Author

Mecca, M. S.; Gedoz, M. G. do A.

Title

COVID-19: reflections on tourism. (Edição Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)9 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

This study discusses the economic impacts that COVID-19 is causing in the tourism sector, in the tourist region of Serra Gaucha. Tourism as a socioeconomic, cultural and environmental agent has great potential to stimulate various forms of economic gains for cities and destinations (Guizi, 2019). However, this market niche, which today accounts for 3.71% of GDP, employing more than 7 million Brazilians, is expected to drop 39% in 2020 and, according to IBGE, the likelihood of tourism starting to recover it will happen only twelve months after the end of social isolation, considering that there is still no date to finish. In this way, the tourist activity is compromised because, because of the risks of contagion, there is no possibility for people to move to other places, also not being able to frequent leisure areas, since tourist spots are, by their nature, places of leisure. crowding of people.

Publication Type

Journal article.

<10>

Accession Number

20203312407

Author

Amorim, F. A.; Eme, J. B.; Finkler, R.; Rech, T.; Conto, S. M. de

Title

Tourism and sustainability: reflections in moments of pandemic COVID-19. (Edição Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)15 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The text was built in a time of social isolation presents considerations based on research themes developed in the Postgraduate Program in Tourism and Hospitality at the University of Caxias do Sul and its interfaces with sustainability and COVID-19 Pandemic. Reflections on new behaviors, new ideas, and new practices are to be established in relation to activities that are part of the tourism and environmental aspects of tourist destinations. The study thinks the research agenda in the academy was changed faced crises in different sectors of tourism. Bearing in mind that tourism activity is being severely affected by the pandemic, it is proposed to expand discussions that have sustainability and crisis management as themes that enhance knowledge production and social development.

Publication Type

Journal article.

<11>

Accession Number

20203312406

Author

Korstanje, M. E.

Title

COVID and the invisible war: is this the end of hospitality? (Edi&ccedil;&atilde;o Especial: COVID-19.)  
[Spanish]

Source

Rosa dos Ventos; 2020. 12(3)31 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The recent virus outbreak resulted from SARS-COV2 [coronavirus disease] not only has been a serious blow to the Western social imaginary, likely affirming a tendency ignited just after 2001 to the self-cannibalization - or at the best the end of hospitality as we know it -, but also disposed of the body as a potential killer who affects the public health. As this paper shows, the old dichotomy revolving around a desired tourist who is an agent of wealth production and globalization and the undesired migrant has been blurred. Now the global tourist is widely seen with some mistrust, as a potential enemy who may place the societal order in jeopardy. Like the war against Cancer in 1970s decade, the war against the local crime in the 1980, or the war on terror just after 9/11, now the world has declared the war against a virus. In this new world, the sacred law of hospitality is basically revisited according to the passage from an absolute to an unconditional hospitality [a-la Derrida].

Publication Type

Journal article.

<12>

Accession Number

20203312405

Author

Beni, M. C.

Title

Tourism and COVID-19: some reflections. (Edi&ccedil;&atilde;o Especial: COVID-19.) [Portuguese]

Source

Rosa dos Ventos; 2020. 12(3)7 ref.

Publisher

Universidade de Caxias do Sul

Location of Publisher

Caxias do Sul

Country of Publication

Brazil

Abstract

The text that follows gathers material posted on my Facebook page, between March and the present moment, with reflections on the COVID-19 Pandemic that is killing us and its implications for tourism. The option to publish them in Rosa dos Ventos - Turismo e Hospitalidade, aims to overcome the ephemerality of social networks that, in their labyrinthine processes, often condemn the published material to a silent disappearance.

Publication Type

Journal article.

<13>

Accession Number

20203319820

Author

Zhang, M.; Zhou, M.; Tang, F.; Wang, Y.; Nie, H.; Zhang, L.; You, G.

Title

Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China.

Source

Journal of Hospital Infection; 2020. 105(2):183-187. 10 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The study analysed healthcare workers' (HCWs) knowledge, practices, and attitudes regarding coronavirus disease 2019 (COVID-19). A cross-sectional survey was conducted from February 4th to February 8th, 2020, involving a total of 1357 HCWs across 10 hospitals in Henan, China. Of those surveyed, 89% of HCWs had sufficient knowledge of COVID-19, more than 85% feared self-infection with the virus, and 89.7% followed correct practices regarding COVID-19. In addition to knowledge level,

some risk factors including work experience and job category influenced HCWs' attitudes and practice concerning COVID-19. Measures must be taken to protect HCWs from risks linked to job category, work experience, working hours, educational attainment, and frontline HCWs.

#### Publication Type

Journal article.

<14>

#### Accession Number

20203309231

#### Author

Liu Min; Cheng ShouZhen; Xu KeWei; Yang Yang; Zhu QingTang; Zhang Hui; Yang DaYa; Cheng ShuYuan; Xiao Han; Wang JiWen; Yao HeRui; Cong YuTian; Zhou YuQi; Peng Sui; Kuang Ming; Hou FanFan; Cheng, K. K.; Xiao HaiPeng

#### Title

Use of personal protective equipment against coronavirus disease 2019 by healthcare professionals in Wuhan, China: cross sectional study.

#### Source

The BMJ; 2020. 369(M2195):(10 June 2020). 23 ref.

#### Publisher

BMJ Publishing Group

#### Location of Publisher

London

#### Country of Publication

UK

#### Abstract

Objective: To examine the protective effects of appropriate personal protective equipment for frontline healthcare professionals who provided care for patients with coronavirus disease 2019 (covid-19).

Design: Cross sectional study. Setting: Four hospitals in Wuhan, China. Participants: 420 healthcare professionals (116 doctors and 304 nurses) who were deployed to Wuhan by two affiliated hospitals of

Sun Yat-sen University and Nanfang Hospital of Southern Medical University for 6-8 weeks from 24 January to 7 April 2020. These study participants were provided with appropriate personal protective equipment to deliver healthcare to patients admitted to hospital with covid-19 and were involved in aerosol generating procedures. 77 healthcare professionals with no exposure history to covid-19 and 80 patients who had recovered from covid-19 were recruited to verify the accuracy of antibody testing. Main outcome measures: Covid-19 related symptoms (fever, cough, and dyspnoea) and evidence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, defined as a positive test for virus specific nucleic acids in nasopharyngeal swabs, or a positive test for IgM or IgG antibodies in the serum samples. Results: The average age of study participants was 35.8 years and 68.1% (286/420) were women. These study participants worked 4-6 hour shifts for an average of 5.4 days a week; they worked an average of 16.2 hours each week in intensive care units. All 420 study participants had direct contact with patients with covid-19 and performed at least one aerosol generating procedure. During the deployment period in Wuhan, none of the study participants reported covid-19 related symptoms. When the participants returned home, they all tested negative for SARS-CoV-2 specific nucleic acids and IgM or IgG antibodies (95% confidence interval 0.0 to 0.7%). Conclusion: Before a safe and effective vaccine becomes available, healthcare professionals remain susceptible to covid-19. Despite being at high risk of exposure, study participants were appropriately protected and did not contract infection or develop protective immunity against SARS-CoV-2. Healthcare systems must give priority to the procurement and distribution of personal protective equipment, and provide adequate training to healthcare professionals in its use.

#### Publication Type

Journal article.

<15>

#### Accession Number

20203307819

#### Author

Richards, T.; Rickard, B. J.

#### Title

COVID-19 impact on fruit and vegetable markets.

#### Source

Working Paper - The Charles H. Dyson School of Applied Economics and Management, Cornell University; 2020. (WP 2020-02):17 pp. 22 ref.

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Publisher

The Charles H. Dyson School of Applied Economics and Management, Cornell University

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

Canadian fruit and vegetable markets were significantly impacted by the spread of the novel coronavirus (and Covid-19 disease), beginning in March, 2020. Due to the closure of restaurants, bars, and schools, produce growers and distributors were forced to shift supplies almost entirely from the foodservice to the retail channel. Shippers reported labor and logistical constraints in making the change, but the fresh produce supply chain remained robust. In the long term, we expect lasting changes in consumers' online food-purchasing habits, heightened constraints on immigrant labor markets, and tighter concentration in fresh produce distribution, and perhaps retailing.

Publication Type

Bulletin.

<16>

Accession Number

20203296595

Author

Khan, R. I.; Mazhar Abbas; Goraya, K.; Muhammad Zafar-ul-Hye; Subhan Danish

Title

Plant derived antiviral products for potential treatment of COVID-19: a review.

Source

Phyton (Buenos Aires); 2020. 89(3):437-452. 95 ref.

Publisher

Tech Science Press



Location of Publisher

Henderson

Country of Publication

USA

Abstract

COVID-19 caused by SARS-CoV-2 is declared global pandemic. The virus owing high resemblance with SARS-CoV and MERS-CoV has been placed in family of beta-coronavirus. However, transmission and infectivity rate of COVID-19 is quite higher as compared to other members of family. Effective management strategy with potential drug availability will break the virus transmission chain subsequently reduce the pressure on the healthcare system. Extensive research trials are underway to develop novel efficient therapeutics against SARS-CoV-2. In this review, we have discussed the origin and family of coronavirus, structure, genome and pathogenesis of virus SARS-CoV-2 inside human host cell; comparison among SARS, MERS, SARS-CoV-2 and common flu; effective management practices; treatment with immunity boosters; available medication with ongoing clinical trials. We suggest medicinal plants could serve as potential candidates for drug development against COVID-19 infection.

Publication Type

Journal article.

<17>

Accession Number

20203316091

Author

Zhou Ting; Huang SuFang; Cheng Jing; Xiao YaRu

Title

The distance teaching practice of combined mode of massive open online course micro-video for interns in emergency department during the COVID-19 epidemic period.

Source

Telemedicine and e-health; 2020. 26(5):584-588. 15 ref.

Publisher

Mary Ann Liebert, Inc.

Location of Publisher

New Rochelle

Country of Publication

USA

Abstract

Objective: To observe and analyze the application effect of the combined mode of Massive Open Online Course (MOOC) micro-video during the COVID-19 epidemic period in the distance teaching practice of interns in the emergency department. Materials and Methods: The subjects of this study were 60 trainee nurses who conducted emergency nursing practice in Tongji Hospital Affiliated to Tongji Medical College of Huazhong University of Science and Technology from January 1 to February 29, 2020. At the time of the COVID-19 outbreak in Wuhan, they were divided into two groups: (1) the experimental group (combined mode of MOOC micro-video) and (2) the control group (traditional theory teaching combined with clinical practice teaching). The differences of theoretical and practical examination scores and teaching satisfaction between the two groups were compared. Results: There was no significant difference in theoretical, practical, and total examination scores between the two groups, but in terms of teaching satisfaction, the overall satisfaction, the degree of easy understanding, the evaluation of teachers and learning results in the experimental group were higher than those in the control group, with statistical difference ( $p < 0.05$ ). Conclusion: Compared with the traditional teaching methods, the effect of combined mode of MOOC micro-video in emergency nursing practice is the same as that of traditional teaching methods, but the satisfaction is higher, so it is more suitable to be used in nursing practice during the COVID-19 epidemic period, so as to effectively reduce the cross-infection between doctors, nurses, and teaching staff.

Publication Type

Journal article.

<18>

Accession Number

20203315893

Author

Meneses-Navarro, S.; Freyermuth-Enciso, M. G.; Pelcastre-Villafuerte, B. E.; Campos-Navarro, R.; Melendez-Navarro, D. M.; Gomez-Flores-Ramos, L.

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Title

The challenges facing indigenous communities in Latin America as they confront the COVID-19 pandemic.

Source

International Journal for Equity in Health; 2020. 19(63):(07 May 2020).

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The coronavirus disease 2019 (COVID-2019) pandemic struck Latin America in late February and is now beginning to spread across the rural indigenous communities in the region, home to 42 million people. Eighty percent of this highly marginalized population is concentrated in Bolivia, Guatemala, Mexico and Peru. Health care services for these ethnic groups face distinct challenges in view of their high levels of marginalization and cultural differences from the majority. Drawing on 30 years of work on the responses of health systems in the indigenous communities of Latin America, our group of researchers believes that countries in the region must be prepared to combat the epidemic in indigenous settings marked by deprivation and social disparity. We discuss four main challenges that need to be addressed by governments to guarantee the health and lives of those at the bottom of the social structure: the indigenous peoples in the region. More than an analysis, our work provides a practical guide for designing and implementing a response to COVID-19 in indigenous communities.

Publication Type

Journal article.

<19>

Accession Number

20203315890

Author

Behzadifar, M.; Ghanbari, M. K.; Bakhtiari, A.; Behzadifar, M.; Bragazzi, N. L.

Title

Ensuring adequate health financing to prevent and control the COVID-19 in Iran.

Source

International Journal for Equity in Health; 2020. 19(61):(06 May 2020). 18 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

On February 19th 2020, the Iranian Ministry of Health and Medical Education (MoHME) has announced the first 2 cases of SARS-CoV-2, a novel emerging coronavirus which causes an infection termed as COVID-19, in Qom city. As such, the Iranian government, through the establishment of the "National Headquarters for the management and control of the novel Coronavirus", has started implementing policies and programs for the prevention and control of the virus. These measures include schools and universities closure, reduced working hours, and increased production and delivery of equipment such as masks, gloves and hygienic materials for sterile environments. The government has also made efforts to divulge high-quality information concerning the COVID-19 and to provide laboratories and hospitals with diagnostic kits and adequate resources to treat patients. However, despite such efforts, the number of cases and deaths has progressively increased with rising trends in total confirmed cases and deaths, as well as in new daily cases and deaths associated with the COVID-19. Iran is a developing country and its economic infrastructure has been hit hardly by embargo and sanctions. While developed countries have allocated appropriate funding and are responding adequately to the COVID-19 pandemics, Iran has experienced a serious surge of cases and deaths and should strive to provide additional resources to the health system to make healthcare services more accessible and to increase the fairness of that access. All relevant actors and stakeholders should work together to fight this disease.

Publication Type

Journal article.

<20>

Accession Number

20203315885

Author

Chen TianXiang; Wang Ying; Hua Lei

Title

"Pairing assistance": the effective way to solve the breakdown of health services system caused by COVID-19 pandemic.

Source

International Journal for Equity in Health; 2020. 19(68):(15 May 2020). 5 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The most terrifying thing about pandemic could be the large number of patients running against the health service system, which causes a serious shortage of health resources, especially medical personnel. Plotting mortality and diagnosis rates against medical staff resources in 16 cities in Hubei Province, where the epidemic was initially concerned and the most severe, shows a significant negative correlation, indicating the critical role of medical staff resources in controlling epidemics. Nevertheless, it is difficult to ensure that there exist enough medical personnel in cities severely hit by the outbreak. China provides solutions by adopting nationwide "pairing assistance" measures with at least one province assisting one city to alleviate pressure in the most severe area. By plotting the number of patients receiving treatment against day, it is clear that implementing "pairing assistance" is a turning point in China's fight against epidemics.

Publication Type

Journal article.

<21>

Accession Number

20203312761

Author

Abhishek Sharma; Vikas Tiwari; Ramanathan Sowdhamini

Title

Computational search for potential COVID-19 drugs from FDA-approved drugs and small molecules of natural origin identifies several anti-virals and plant products.

Source

Journal of Biosciences; 2020. 45(100):(17 July 2020). many ref.

Publisher

Indian Academy of Sciences

Location of Publisher

Bengaluru

Country of Publication

India

Abstract

The world is currently facing the COVID-19 pandemic, for which mild symptoms include fever and dry cough. In severe cases, it could lead to pneumonia and ultimately death in some instances. Moreover, the causative pathogen is highly contagious and there are no drugs or vaccines for it yet. The pathogen, SARS-CoV-2, is one of the human coronaviruses which was identified to infect humans first in December 2019. SARS-CoV-2 shares evolutionary relationship to other highly pathogenic viruses such as Severe Acute Respiratory Syndrome (SARS) and Middle East respiratory syndrome (MERS). We have exploited this similarity to model a target non-structural protein, NSP1, since it is implicated in the regulation of host gene expression by the virus and hijacking of host machinery. We next interrogated the capacity to repurpose around 2300 FDA-approved drugs and more than 3,00,000 small molecules of natural origin towards drug identification through virtual screening and molecular dynamics. Interestingly, we observed simple molecules like lactose, previously known anti-virals and few secondary metabolites of plants as promising hits. These herbal plants are already practiced in Ayurveda over centuries to treat respiratory problems and inflammation. Disclaimer: we would not like to recommend uptake of these small molecules for suspect COVID patients until it is approved by competent national or international authorities.

Publication Type

<22>

Accession Number

20203315806

Author

Baum, T.; Nguyen Thi Thanh Hai

Title

Hospitality, tourism, human rights and the impact of COVID-19.

Source

International Journal of Contemporary Hospitality Management; 2020. 32(7):2397-2407. 33 ref.

Publisher

Emerald Publishing

Location of Publisher

Bingley

Country of Publication

UK

Abstract

Purpose: The purpose of this paper is to undertake a "real-time" assessment of the impact of the COVID-19 pandemic on the right to participate in hospitality and tourism and to illustrate where such rights are under threat. Design/methodology/approach: This discussion is based on a review of current events, assessed through interpretation of a human rights lens. Findings: Rights to participate in hospitality and tourism, particularly in parts of Asia, Europe and North America, were affected on a scale unprecedented in peacetime. Research limitations/implications: The rights to participate in hospitality and tourism have been challenged as never before. The big questions that will need to be answered going forward are the extent to which such rights will be restored, post-COVID-19. Originality/value: This is a "real-time" assessment and will require re-visiting as events unfold over the coming months and years.

Publication Type

<23>

Accession Number

20203320252

Author

Makurumidze, R.

Title

Coronavirus-19 disease (COVID-19): a case series of early suspected cases reported and the implications towards the response to the pandemic in Zimbabwe.

Source

Journal of Microbiology, Immunology and Infection; 2020. 53(3):493-498. 40 ref.

Publisher

Elsevier Taiwan LLC

Location of Publisher

Taipei

Country of Publication

Taiwan

Abstract

Zimbabwe is among the countries that have been identified to be at risk of the COVID-19 pandemic. As of the 15th of March 2020, there was no confirmed case of the virus. Official reports of suspected cases were used to appraise the general screening, case management, and the emergency preparedness and response of the country towards the COVID-19 pandemic. In terms of the surveillance and capacity to screen at the ports of entry, the country seems to be faring well. The country might not be screening optimally, considering the number of COVID-19 tests conducted to date and the suspected cases who missed testing. Three of the suspected cases faced mental, social, and psychological consequences due to them being suspected cases of COVID-19. There is a need to enhance the screening process and infrastructure at all the ports of entry. More COVID-19 diagnostic tests should be procured to increase the testing capacity. Training and awareness on mental, social, and psychological consequences of



COVID-19 should be offered to the health care workers and the general public. More financial resources should be sourced to enable the country control the pandemic.

Publication Type

Journal article.

<24>

Accession Number

20203320238

Author

Lai ChihCheng; Liu YenHung; Wang ChengYi; Wang YaHui; Hsueh ShunChung; Yen MuhYen; Ko WenChien; Hsueh PoRen

Title

Asymptomatic carrier state, acute respiratory disease, and pneumonia due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): facts and myths.

Source

Journal of Microbiology, Immunology and Infection; 2020. 53(3):404-412. 50 ref.

Publisher

Elsevier Taiwan LLC

Location of Publisher

Taipei

Country of Publication

Taiwan

Abstract

Since the emergence of coronavirus disease 2019 (COVID-19) (formerly known as the 2019 novel coronavirus [2019-nCoV]) in Wuhan, China in December 2019, which is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), more than 75,000 cases have been reported in 32 countries/regions, resulting in more than 2000 deaths worldwide. Despite the fact that most COVID-19 cases and mortalities were reported in China, the WHO has declared this outbreak as the sixth public health emergency of international concern. The COVID-19 can present as an asymptomatic carrier state,

acute respiratory disease, and pneumonia. Adults represent the population with the highest infection rate; however, neonates, children, and elderly patients can also be infected by SARS-CoV-2. In addition, nosocomial infection of hospitalized patients and healthcare workers, and viral transmission from asymptomatic carriers are possible. The most common finding on chest imaging among patients with pneumonia was ground-glass opacity with bilateral involvement. Severe cases are more likely to be older patients with underlying comorbidities compared to mild cases. Indeed, age and disease severity may be correlated with the outcomes of COVID-19. To date, effective treatment is lacking; however, clinical trials investigating the efficacy of several agents, including remdesivir and chloroquine, are underway in China. Currently, effective infection control intervention is the only way to prevent the spread of SARS-CoV-2.

#### Publication Type

Journal article.

<25>

#### Accession Number

20203320231

#### Author

Ma Xiang; Su Liang; Zhang YunKui; Zhang XiuZhen; Gai ZhongTao; Zhang ZhongFa

#### Title

Do children need a longer time to shed SARS-CoV-2 in stool than adults?

#### Source

Journal of Microbiology, Immunology and Infection; 2020. 53(3):373-376. 10 ref.

#### Publisher

Elsevier Taiwan LLC

#### Location of Publisher

Taipei

#### Country of Publication

Taiwan

#### Abstract

SARS-CoV-2 can be shed in the stool of patients in the recovery phase. Children show a longer shedding time than adults. We analyzed the possible causes of this finding and recommend that a negative stool sample be included in a patient's discharge criteria.

Publication Type

Journal article.

<26>

Accession Number

20203306949

Author

Kongkam, P.; Tiankanon, K.; Kitiyakara, T.; Ratanalert, S.; Janthakun, V.; Angsuwatcharakon, P.; Chantarojanasiri, T.; Mekaroonkamol, P.; Ridditid, W.; Aniwana, S.; Pittayanon, R.; Attasaranya, S.; Linlawan, S.; Pausawasdi, N.; Akaraviputh, T.; Ratanachu-Ek, T.; Rerknimitr, R.

Title

The practice of endoscopy during the COVID-19 pandemic: recommendations from the Thai association for gastrointestinal endoscopy (TAGE) in collaboration with the endoscopy nurse society (Thailand). (Special issue.)

Source

Siriraj Medical Journal; 2020. 72(4):283-286. 8 ref.

Publisher

Faculty of Medicine, Siriraj Hospital, Mahidol University

Location of Publisher

Bangkok

Country of Publication

Thailand

Abstract

For management of endoscopy units during the worldwide coronavirus disease 2019 (COVID-19) outbreak caused by the new coronavirus SARS-CoV-2 in Thailand, a working group of the Thai Association for Gastrointestinal Endoscopy (TAGE) in collaboration with the Endoscopy Nurse Society

(Thailand) (ENST) has developed the following recommendations for Thai doctors and medical personnel working in gastrointestinal endoscopy (GIE) units. Upper and lower GIE is considered as an aerosol generating procedure (AGP). Information regarding chance of infection in patients must be obtained before performing endoscopy to help determine the level of risk. Endoscopies should only be performed in emergency/urgency cases. Hospitals that have no confirmed cases with low incidences of infection in their coverage area may consider performing selective endoscopies. For the confirmed infected patient, the recommendations are as follows; the endoscopist who performed the procedure must be an experienced one, wear the enhanced personal protective equipment (PPE) with correct practice how to wear and take off PPE, and strict hand hygiene. The endoscopic procedure should be performed in a negative pressure room; however, If not available, a bedside procedure in the cohort ward should be performed. Endotracheal tube intubation and removal should be done by an anesthesiologist. Most enzymatic detergent solutions can eliminate SARS-CoV-2. The use of an additional pre-cleaning process in order to prevent AGP from occurring during endoscope reprocessing is recommended. Patient(s) under investigation (PUI) should wait for the test result before considering endoscopic procedure. For the low risk patient for COVID-19 infection who needs an endoscopic procedure, standard PPE is recommended. Due to the limitation of medical resources, only medical personnel who are necessary for the procedure and at risk of COVID-19 infection should be allowed to use the recommended PPE.

Publication Type

Journal article.

<27>

Accession Number

20203300734

Author

Cruz-Correa, M.; D&iacute;az-Toro, E. C.; Falc&oacute;n, J. L.; Garc&iacute;a-Rivera, E. J.; Guiot, H. M.; Maldonado-D&iacute;vila, W. T.; Mart&iacute;nez, K. G.; M&eacute;ndez-Latalladi, W.; P&eacute;rez, C. M.; Qui&ntilde;ones-Feliciano, M. L.; Reyes, J. C.; Rodr&iacute;guez, P.; Santana-Bagur, J.; Torrellas, L. C.; V&acute;zquez, D.; V&acute;zquez, G. J.; Rodr&iacute;guez-Quilichini, S.

Title

Public health academic alliance for COVID-19 response: the role of a national Medical Task Force in Puerto Rico.

Source

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Alliances between the government and academic communities can be a key component of the public health response to an emergency such as the coronavirus disease 2019 (COVID-19) pandemic. The Governor of Puerto Rico designated the Puerto Rico Medical Task Force (MTF) COVID-19 to provide direct guidance and evaluation of the government response to the epidemic in Puerto Rico. Several work groups were formed within the MTF to create protocols and provide evidence-based recommendations on different public health aspects. The collaboration between the academia and the government enhanced the Puerto Rican public health response and contributed to the reduction seen in the contagion curve. Healthcare services and hospitals have not reached their maximum patient care capacity and the death toll has been controlled. Incorporating a national MTF with members of the academia into the government structure was beneficial during the COVID-19 response in Puerto Rico. A similar strategy could serve as a model for other states or territories and countries in similar scenarios.

Publication Type

Journal article.

<28>

Accession Number

20203294996

Author

Nasser, D.; Koffi-Aka, V.; Dosso-Yavo, N.; Meideros, E. de; Tano-Ngouan, T. N.

Title

Criteria for selecting patients in non-urgent ENT consultation in the context of pandemic in Covid19: experience of the ENT unit at UTH of the treichville, Ivory Coast. [French]

Source

Medecine d'Afrique Noire; 2020. 67(6):319-326.

Publisher

API DPM

Location of Publisher

La Seyne sur Mer

Country of Publication

France

Abstract

The aim of the article was to report the criteria and the results of patient selection in non-urgent ENT consultations. Two and fifty-nine (259) patients were surveyed between April 14th, and May 13rd. Low presumption patients accounted for 83.01%; high presumptions accounted for 11.97% and intermediate cases 5.02%. Forty-four (16.99%) patients with a score above 3 were screened; 31 of them had a score above 7 or 70.46%. Five of the patients tested were positive corresponding at 11.36%. Seven patients had an acute anosmia and/or ageusia; three of them had refused screening. These were 2 men and 5 women, with an average age of 46,86, living in municipalities with intermediate prevalence of COVID-19 in the Great Abidjan. Failing to allow a diagnosis of certainty of COVID-19, these selection criteria could help to care ENT workers and other people sharing the same area.

Publication Type

Journal article.

<29>

Accession Number

20203316876

Author

Truelove, S.; Abraham, O.; Altare, C.; Lauer, S. A.; Grantz, K. H.; Azman, A. S.; Spiegel, P.

Title

The potential impact of COVID-19 in refugee camps in Bangladesh and beyond: a modeling study.

Source

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Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

Background: COVID-19 could have even more dire consequences in refugees camps than in general populations. Bangladesh has confirmed COVID-19 cases and hosts almost 1 million Rohingya refugees from Myanmar, with 600,000 concentrated in the Kutupalong-Balukhali Expansion Site (mean age, 21 years; standard deviation [SD], 18 years; 52% female). Projections of the potential COVID-19 burden, epidemic speed, and healthcare needs in such settings are critical for preparedness planning. Methods and findings: To explore the potential impact of the introduction of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the Kutupalong-Balukhali Expansion Site, we used a stochastic Susceptible Exposed Infectious Recovered (SEIR) transmission model with parameters derived from emerging literature and age as the primary determinant of infection severity. We considered three scenarios with different assumptions about the transmission potential of SARS-CoV-2. From the simulated infections, we estimated hospitalizations, deaths, and healthcare needs expected, age-adjusted for the Kutupalong-Balukhali Expansion Site age distribution. Our findings suggest that a large-scale outbreak is likely after a single introduction of the virus into the camp, with 61%-92% of simulations leading to at least 1,000 people infected across scenarios. On average, in the first 30 days of the outbreak, we expect 18 (95% prediction interval [PI], 2-65), 54 (95% PI, 3-223), and 370 (95% PI, 4-1,850) people infected in the low, moderate, and high transmission scenarios, respectively. These reach 421,500 (95% PI, 376,300-463,500), 546,800 (95% PI, 499,300-567,000), and 589,800 (95% PI, 578,800-595,600) people infected in 12 months, respectively. Hospitalization needs exceeded the existing hospitalization capacity of 340 beds after 55-136 days, between the low and high transmission scenarios. We estimate 2,040 (95% PI, 1,660-2,500), 2,650 (95% PI, 2,030-3,380), and 2,880 (95% PI, 2,090-3,830) deaths in the low, moderate, and high transmission scenarios, respectively. Due to limited data at the time of analyses, we assumed that age was the primary determinant of infection severity and hospitalization. We expect that comorbidities, limited hospitalization, and intensive care capacity may increase this risk; thus, we may be underestimating the potential burden. Conclusions: Our findings suggest that a COVID-19 epidemic in a refugee settlement may have profound consequences, requiring large increases in healthcare capacity and infrastructure that may exceed what is currently feasible in these settings. Detailed and realistic planning for the worst case in Kutupalong-Balukhali and all refugee camps worldwide must begin now. Plans should consider novel and radical strategies to reduce infectious contacts and fill health worker gaps while recognizing that refugees may not have access to national health systems.

Publication Type

<30>

Accession Number

20203314903

Author

Atamanchuk, Z. A.

Title

The development of international tourism in the context of the COVID-19 pandemic: tendencies and expectations. [Ukrainian]

Source

Business Inform; 2020. (5):94-99. 15 ref.

Publisher

Inzhhek Publishing House

Location of Publisher

Kharkiv

Country of Publication

Ukraine

Abstract

The article is aimed at highlighting the current tendencies in the global tourism market, substantiating the specifics of market dynamics in the context of the COVID-19 pandemic, and finding ways to diversify the tourism product in order to minimize the risks of significant losses of the tourism industry. The article focuses on the problems of a significant downward trend of tourist activity at the present stage caused by the spread of coronavirus around the world, the emergence of a new strain of which (2019-nCoV) was confirmed in December 2019 in Wuhan (China). The experts' views on the effects of the intense spread of the virus over the world, which can be not only fatal to humans but also harmful to the world economy, especially for the sphere of international tourism, are analyzed. Tendencies in the losses of tourism industry from COVID-19 and large-scale measures to contain it at the level of the world's regions are defined. The forecasts of a fall in employment in the travel and tourism sector at the regional level are substantiated. The approaches of the governments of some touristic attractive



countries of the world to planning the restoration of tourism business in the conditions of lifting the quarantine measures are systematized. The expediency of diversification of the tourism product is substantiated, which takes on a special relevance in the face of modern challenges and threats to the international tourism activities. It is proved that the development of rural tourism is a priority sphere for Ukraine, which allows to solve a number of important problems for the country's economy: minimize the migration of people from rural areas; provide employment opportunities for rural youth, ethnic minorities; reduce poverty; preserve cultural heritage.

Publication Type

Journal article.

<31>

Accession Number

20203321273

Author

Jain, V. K.; Raju Vaishya

Title

COVID-19 and orthopaedic surgeons: the Indian scenario.

Source

Tropical Doctor; 2020. 50(2):108-110. 10 ref.

Publisher

Sage Publications Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The emergence of COVID-19 has impacted orthopaedic surgery worldwide. India, with its large population and limited health resources, will be overwrought over the coming days due to the number of cases of critically ill patients with COVID-19. It is important to understand the challenges for

orthopaedic (and other) surgeons in India when dealing with patients during the COVID-19 pandemic. This article highlights the challenges in the triaging of patients, care in dealing with a patient with COVID-19 in orthopaedic surgery, and the effects on academics and research activities; it also suggests immediate measures and recommendations that also apply to other specialties.

Publication Type

Journal article.

<32>

Accession Number

20203308126

Author

Rogelj, M. J.; & Scaron; iftar, H.; Miku&scaron;, O.

Title

Cattle breeding and COVID-19. [Croatian]

Source

Meso; 2020. 22(4):288-294. 9 ref.

Publisher

Zadružna Stampa

Location of Publisher

Zagreb

Country of Publication

Croatia

Abstract

A cattle breeding in the territory of the Republic of Croatia has a long tradition, but in recent years it has been affected by various problems. Due to the deteriorating situation in the dairy sector, the number of cows and thus calves for further breeding is decreasing, which affects the constant increase in imports. Most calves are imported from Romania (60.52% in 2019) while most of the young bulls are exported to Lebanon and Italy. Due to the crisis of the authorities in Lebanon and the closure of the Italian market due to the epidemic COVID-19, the cattle breeding sector found itself in trouble. The

measure of support to the sector, adopted by the Ministry of Agriculture in May 2020, did not achieve the desired results because the subsidies intended for beef breeders reduced the purchase price of cattle.

Publication Type

Journal article.

<33>

Accession Number

20203307447

Author

Snijder, E. J.; Limpens, R. W. A. L.; Wilde, A. H. de; Jong, A. W. M. de; Zevenhoven-Dobbe, J. C.; Maier, H. J.; Faas, F. F. G. A.; Koster, A. J.; B&aacute;rcena, M.

Title

A unifying structural and functional model of the coronavirus replication organelle: tracking down RNA synthesis.

Source

PLoS Biology; 2020. 18(6)76 ref.

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

Zoonotic coronavirus (CoV) infections, such as those responsible for the current severe acute respiratory syndrome-CoV 2 (SARS-CoV-2) pandemic, cause grave international public health concern. In infected cells, the CoV RNA-synthesizing machinery associates with modified endoplasmic reticulum membranes that are transformed into the viral replication organelle (RO). Although double-membrane vesicles (DMVs) appear to be a pan-CoV RO element, studies to date describe an assortment of

additional CoV-induced membrane structures. Despite much speculation, it remains unclear which RO element(s) accommodate viral RNA synthesis. Here we provide detailed 2D and 3D analyses of CoV ROs and show that diverse CoVs essentially induce the same membrane modifications, including the small open double-membrane spherules (DMSs) previously thought to be restricted to gamma- and delta-CoV infections and proposed as sites of replication. Metabolic labeling of newly synthesized viral RNA followed by quantitative electron microscopy (EM) autoradiography revealed abundant viral RNA synthesis associated with DMVs in cells infected with the beta-CoVs Middle East respiratory syndrome-CoV (MERS-CoV) and SARS-CoV and the gamma-CoV infectious bronchitis virus. RNA synthesis could not be linked to DMSs or any other cellular or virus-induced structure. Our results provide a unifying model of the CoV RO and clearly establish DMVs as the central hub for viral RNA synthesis and a potential drug target in CoV infection.

#### Publication Type

Journal article.

<34>

#### Accession Number

20203318547

#### Author

Shadmi, E.; Chen YingYao; Dourado, I.; Faran-Perach, I.; Furler, J.; Hangoma, P.; Hanvoravongchai, P.; Obando, C.; Petrosyan, V.; Rao, K. D.; Ruano, A. L.; Shi LeiYu; Souza, L. E. de; Spitzer-Shohat, S.; Sturgiss, E.; Suphanchaimat, R.; Uribe, M. V.; Willems, S.

#### Title

Health equity and COVID-19: global perspectives.

#### Source

International Journal for Equity in Health; 2020. 19(104):(26 June 2020). 74 ref.

#### Publisher

BioMed Central Ltd

#### Location of Publisher

London

#### Country of Publication

UK

## Abstract

The COVID-19 is disproportionately affecting the poor, minorities and a broad range of vulnerable populations, due to its inequitable spread in areas of dense population and limited mitigation capacity due to high prevalence of chronic conditions or poor access to high quality public health and medical care. Moreover, the collateral effects of the pandemic due to the global economic downturn, and social isolation and movement restriction measures, are unequally affecting those in the lowest power strata of societies. To address the challenges to health equity and describe some of the approaches taken by governments and local organizations, we have compiled 13 country case studies from various regions around the world: China, Brazil, Thailand, Sub Saharan Africa, Nicaragua, Armenia, India, Guatemala, United States of America (USA), Israel, Australia, Colombia, and Belgium. This compilation is by no-means representative or all inclusive, and we encourage researchers to continue advancing global knowledge on COVID-19 health equity related issues, through rigorous research and generation of a strong evidence base of new empirical studies in this field.

## Publication Type

Journal article.

<35>

## Accession Number

20203318534

## Author

Bindu Panthi; Pratik Khanal; Minakshi Dahal; Sajana Maharjan; Sushil Nepal

## Title

An urgent call to address the nutritional status of women and children in Nepal during COVID-19 crises.

## Source

International Journal for Equity in Health; 2020. 19(87):(05 June 2020). 10 ref.

## Publisher

BioMed Central Ltd

## Location of Publisher

London

Country of Publication

UK

Abstract

Due to the ongoing nationwide lockdown in Nepal, women and children face a greater risk of malnutrition and eventually leading to mortality and morbidity. To harness the progress made so far in improving the nutritional status of women and children, a focus on nutrition should be a part of the COVID-19 response.

Publication Type

Journal article.

<36>

Accession Number

20203314790

Author

Liu Fei; Page, A.; Strode, S. A.; Yoshida, Y.; Choi SungYeon; Zheng Bo; Lamsal, L. N.; Li Can; Krotkov, N. A.; Eskes, H.; A., R. van der; Veefkind, P.; Level, P. F.; Hauser, O. P.; Joiner, J.

Title

Abrupt decline in tropospheric nitrogen dioxide over China after the outbreak of COVID-19.

Source

Science Advances; 2020. 6(28)28 ref.

Publisher

American Association for the Advancement of Science

Location of Publisher

Washington

Country of Publication

USA

## Abstract

China's policy interventions to reduce the spread of the coronavirus disease 2019 have environmental and economic impacts. Tropospheric nitrogen dioxide indicates economic activities, as nitrogen dioxide is primarily emitted from fossil fuel consumption. Satellite measurements show a 48% drop in tropospheric nitrogen dioxide vertical column densities from the 20 days averaged before the 2020 Lunar New Year to the 20 days averaged after. This is 21% +/- 5% larger than that from 2015-2019. We relate this reduction to two of the government's actions: the announcement of the first report in each province and the date of a province's lockdown. Both actions are associated with nearly the same magnitude of reductions. Our analysis offers insights into the unintended environmental and economic consequences through reduced economic activities.

## Publication Type

Journal article.

<37>

## Accession Number

20203314789

## Author

Green, J.; Edgerton, J.; Naftel, D.; Shoub, K.; Cranmer, S. J.

## Title

Elusive consensus: polarization in elite communication on the COVID-19 pandemic.

## Source

Science Advances; 2020. 6(28)25 ref.

## Publisher

American Association for the Advancement of Science

## Location of Publisher

Washington

## Country of Publication

USA

## Abstract

Cues sent by political elites are known to influence public attitudes and behavior. Polarization in elite rhetoric may hinder effective responses to public health crises, when accurate information and rapid behavioral change can save lives. We examine polarization in cues sent to the public by current members of the U.S. House and Senate during the onset of the COVID-19 pandemic, measuring polarization as the ability to correctly classify the partisanship of tweets' authors based solely on the text and the dates they were sent. We find that Democrats discussed the crisis more frequently-emphasizing threats to public health and American workers-while Republicans placed greater emphasis on China and businesses. Polarization in elite discussion of the COVID-19 pandemic peaked in mid-February-weeks after the first confirmed case in the United States-and continued into March. These divergent cues correspond with a partisan divide in the public's early reaction to the crisis.

Publication Type

Journal article.

<38>

Accession Number

20203320313

Author

Vaidya, R.; Herten-Crabb, A.; Spencer, J.; Moon, S.; Lillywhite, L.

Title

Travel restrictions and infectious disease outbreaks.

Source

Journal of Travel Medicine; 2020. 27(3)46 ref.

Publisher

Oxford University Press

Location of Publisher

Cary

Country of Publication

USA

Abstract



Background: A key purpose of the International Health Regulations (IHR) is to prevent unwarranted interruptions to trade and travel during large and/or transnational infectious disease outbreaks. Nevertheless, such outbreaks continue to disrupt the travel industry. This aspect of the IHR has received little attention in the academic literature despite its considerable impact on affected States and commercial activity. This article outlines the challenges and gaps in knowledge regarding the relationship between outbreaks and the travel sector and discusses the opportunities for further research and policy work to overcome these challenges. Methodology: We conducted a literature review on the relationship between outbreaks and travel restrictions, with a particular focus on the 2014-16 Ebola epidemic in West Africa. This review was complemented by an expert roundtable at Chatham House and further supported by case studies and qualitative interviews. Results: Numerous travel stakeholders are affected by, and affect, large-scale infectious disease outbreaks. These stakeholders react in different ways: peer pressure plays an important role for both governments and the travel sector, and the reactions of the media and public influence and are influenced by these stakeholders. While various data sources on travel are available, and World Health Organization is mandated to work with States, there is no recognized coordinating body to disseminate timely, consistent, reliable and authoritative information and best practices to all stakeholders. Conclusion: This article highlights the interdependent relationship between various travel stakeholders. The reasons for interruption of travel during the 2014-16 Ebola outbreak were complex, with decisions by States only partly contributing to the cessation. Decisions by non-state actors, particularly the travel industry itself, contributed significantly and were based on a variety of factors. Further research, analysis and policy development are required to mitigate the health and economic consequences of infectious disease outbreaks. Any further research will also need to take account of COVID-19 travel-related issues.

Publication Type

Journal article.

<39>

Accession Number

20203308463

Author

Rao ShiTao; Lau, A.; So HonCheong

Title

Exploring diseases/traits and blood proteins causally related to expression of ACE2, the putative receptor of SARS-CoV-2: a mendelian randomization analysis highlights tentative relevance of diabetes-related traits.

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## Source

Diabetes Care; 2020. 43(7):1416-1426. 70 ref.

## Publisher

The American Diabetes Association

## Location of Publisher

Washington

## Country of Publication

USA

## Abstract

**OBJECTIVE:** COVID-19 has become a major public health problem. There is good evidence that ACE2 is a receptor for SARS-CoV-2, and high expression of ACE2 may increase susceptibility to infection. We aimed to explore risk factors affecting susceptibility to infection and prioritize drug repositioning candidates, based on Mendelian randomization (MR) studies on ACE2 lung expression. **RESEARCH DESIGN AND METHODS:** We conducted a phenome-wide MR study to prioritize diseases/traits and blood proteins causally linked to ACE2 lung expression in GTEx. We also explored drug candidates whose targets overlapped with the top-ranked proteins in MR, as these drugs may alter ACE2 expression and may be clinically relevant. **RESULTS:** The most consistent finding was tentative evidence of an association between diabetes-related traits and increased ACE2 expression. Based on one of the largest genome-wide association studies on type 2 diabetes mellitus (T2DM) to date (N = 898,130), T2DM was causally linked to raised ACE2 expression (P = 2.91E-03; MR-IVW). Significant associations (at nominal level; P < 0.05) with ACE2 expression were observed across multiple diabetes data sets and analytic methods for T1DM, T2DM, and related traits including early start of insulin. Other diseases/traits having nominal significant associations with increased expression included inflammatory bowel disease, (estrogen receptor-positive) breast cancer, lung cancer, asthma, smoking, and elevated alanine aminotransferase. We also identified drugs that may target the top-ranked proteins in MR, such as fostamatinib and zinc. **CONCLUSIONS:** Our analysis suggested that diabetes and related traits may increase ACE2 expression, which may influence susceptibility to infection (or more severe infection). However, none of these findings withstood rigorous multiple testing corrections (at false discovery rate <0.05). Proteome-wide MR analyses might help uncover mechanisms underlying ACE2 expression and guide drug repositioning. Further studies are required to verify our findings.

## Publication Type

Journal article.

<40>

Accession Number

20203309657

Author

Dong YanHui; Wang LiPing; Burgner, D. P.; Miller, J. E.; Song Yi; Ren Xiang; Li ZhongJie; Xing Yi; Ma Jun; Sawyer, S. M.; Patton, G. C.

Title

Infectious diseases in children and adolescents in China: analysis of national surveillance data from 2008 to 2017.

Source

The BMJ; 2020. 369(M1043):(2 April 2020). many ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

**Objectives:** To outline which infectious diseases in the pre-covid-19 era persist in children and adolescents in China and to describe recent trends and variations by age, sex, season, and province. **Design:** National surveillance studies, 2008-17. **Setting** 31 provinces in mainland China. **Participants** 4 959 790 Chinese students aged 6 to 22 years with a diagnosis of any of 44 notifiable infectious diseases. The diseases were categorised into seven groups: quarantinable; vaccine preventable; gastrointestinal and enteroviral; vectorborne; zoonotic; bacterial; and sexually transmitted and bloodborne. **Main outcome measures:** Diagnosis of, and deaths from, 44 notifiable infectious diseases. **Results:** From 2008 to 2017, 44 notifiable infectious diseases were diagnosed in 4 959 790 participants (3 045 905 males, 1 913 885 females) and there were 2532 deaths (1663 males, 869 females). The leading causes of death among infectious diseases shifted from rabies and tuberculosis to HIV/AIDS, particularly in males. **Mortality** from infectious diseases decreased steadily from 0.21 per 100 000 population in 2008 to 0.07 per 100 000 in 2017. Quarantinable conditions with high mortality have effectively disappeared. The incidence of notifiable infectious diseases in children and adolescents decreased from 280 per 100 000 in 2008 to 162 per 100 000 in 2015, but rose again to 242 per 100 000 in 2017, largely related to mumps and seasonal influenza. Excluding mumps and influenza, the incidence of vaccine preventable diseases fell from 96 per 100 000 in 2008 to 7 per 100 000 in 2017. The incidence of gastrointestinal and enterovirus diseases remained constant, but typhoid, paratyphoid, and dysentery continued to decline. Vectorborne diseases all declined, with a particularly noticeable reduction in malaria. Zoonotic infections remained at low incidence, but there were still unpredictable outbreaks, such as pandemic

A/H1N1 2009 influenza. Tuberculosis remained the most common bacterial infection, although cases of scarlet fever doubled between 2008 and 2017. Sexually transmitted diseases and bloodborne infections increased significantly, particularly from 2011 to 2017, among which HIV/AIDS increased fivefold, particularly in males. Difference was noticeable between regions, with children and adolescents in western China continuing to carry a disproportionate burden from infectious diseases. Conclusions: China's success in infectious disease control in the pre-covid-19 era was notable, with deaths due to infectious diseases in children and adolescents aged 6-22 years becoming rare. Many challenges remain around reducing regional inequalities, scaling-up of vaccination, prevention of further escalation of HIV/AIDS, renewed efforts for persisting diseases, and undertaking early and effective response to highly transmissible seasonal and unpredictable diseases such as that caused by the novel SARS-CoV-2 virus.

Publication Type

Journal article.

<41>

Accession Number

20203304621

Author

Seleiman, M. F.; Selim, S.; Alhammad, B. A.; Alharbi, B. M.; Juliatti, F. C.

Title

Will novel coronavirus (COVID-19) pandemic impact agriculture, food security and animal sectors?

Source

Bioscience Journal; 2020. 36(4):1315-1326. 40 ref.

Publisher

Universidade Federal de Uberlandia

Location of Publisher

Uberlândia

Country of Publication

Brazil

## Abstract

The whole world is in a great danger due to the novel coronavirus (COVID-19) pandemic. In December 2019, the outbreak of COVID-19 took place in Wuhan, China and then rapidly spread all over the world. The current study provides potential expectations for the adverse impact of (COVID-19). The global infection affected globe on agricultural level such as agriculture, food supplies and animal production sectors. Till today, 29th April 2020, there is no vaccine available for treating novel coronavirus, consequently, the outbreak resulted in closing borders and reducing production following social distancing measures. This short communication illustrates the possible implications and expected outcomes of the outbreak of coronavirus (COVID-19) on agricultural, food security, integrated pest management (IPM), animal productivity; and it predicts, as well, the possible adverse impacts on the economy worldwide. Brazil has one of the most important tropical agriculture in the world, being a leader in soybean production in the world. This chain impacts others such as meat and eggs. The impact of COVID-19 will be positive, encouraging the country to consolidate its leadership in the world market, stimulating exports, the machinery, inputs and fertilizers market, as well as generating employment and income in the country.

## Publication Type

Journal article.

<42>

## Accession Number

20203319093

## Author

Ghanshyam Verma; Raja Amarnath; Saravanan, M. C.; Arunprasath, D.

## Title

Repurposing of hydroxychloroquine (HCQ) and azithromycin in prophylaxis and treatment of COVID-19 disease.

## Source

Indian Journal of Basic and Applied Medical Research; 2020. 9(3):31-43. 39 ref.

## Publisher

Indian Journal of Basic and Applied Medical Research (IJBAMR)

## Location of Publisher

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Nashik

Country of Publication

India

Abstract

Severe Acute Respiratory Syndrome related coronaviruses -2 (SARS CoV-2) infection posed unprecedented challenges to the world. SARS Co-V 2 shows similarity with severe acute respiratory syndrome coronavirus (SARS-CoV) and the Middle East respiratory syndrome coronavirus (MERS-CoV) and are distributed broadly among humans and animals and cause respiratory tract infections. It is imperative for identifying appropriate therapeutic options in response to the SARC CoV-2 outbreak. Here, we discuss the potential drug options for repurposing against Corona Virus Disease 2019 (COVID-19)/SARS-CoV-2. COVID-19 outbreak has emphasized the urgent need for repurposing drugs. We focus here on the existing drugs, based on therapeutic application in influenza and human coronaviruses: SARS and MERS. Hydroxychloroquine (HCQ) has a long-standing history in the prevention and treatment of malaria and has immunomodulatory effects used in various autoimmune disease. Multiple research studies show that HCQ improved virologic clearance, and a combination of HCQ with Azithromycin (AZ) is better in viral clearance. These drugs are relatively safe and may improve the clinical outcome in the patient.

Publication Type

Journal article.

<43>

Accession Number

20203312654

Author

Leit&atilde;o, F. O.; Salim, O. O.

Title

The role of reverse logistics in the mitigation of waste in agricultural supply chains. [Portuguese]

Source

Informe GEPEC; 2020. 24(2):153-172. 32 ref.

Publisher

State University of Western Parana

Location of Publisher

Cascavel

Country of Publication

Brazil

Abstract

International agencies have warned of problems of food scarcity, which can be aggravated by the interruptions related to COVID-19 in the international trade of Agrifood Supply Chains (CSAs). Reverse logistics (LR) is important in combating food waste, helping to optimize the distribution process. The objective of this work was to analyze the LR strategies that have been adopted to assist the decision making of agents in reducing waste in the CSA at the operational, behavioral and governmental levels. This work is classified as basic, descriptive and qualitative; whose technical procedure was the systematic review of the literature. The data were analyzed using the precepts of Bardin (1977). The results show that there is a better use of food waste when using routing systems, which optimize the distribution process and promote the reduction of waste. Additionally, it was found that people's behavior and governmental initiatives are important to mitigate waste.

Publication Type

Journal article.

<44>

Accession Number

20203311932

Author

Berk, U.; Dubey, A. K.

Title

Global COVID 19 and agnihotra.

Source

International Journal of Global Science Research; 2020. 7(1)

Publisher

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Environment and Social Welfare Society

Location of Publisher

Khajuraho

Country of Publication

India

Abstract

Agnihotra, the basic healing fire of HOMA Therapy, is a small fire prepared in a copper pyramid exactly at sunrise and sunset each day. Agnihotra can neutralize the effects of pollution on plants, animals and human beings and at the same time give nourishment. As this is about Covid-19, a threat to all of humanity, and Agnihotra may be a means to alleviate the ramifications. Keywords: Agnihotra, copper pyramid, Mantra, Rice, Dried cow dung, Ghee.

Publication Type

Journal article.

<45>

Accession Number

20203323268

Author

Liu Xi; Luo WenTao; Li Ying; Li ChunNa; Hong ZhongSi; Chen HuiLi; Xiao Fei; Xia JinYu

Title

Psychological status and behavior changes of the public during the COVID-19 epidemic in China.

Source

Infectious Diseases of Poverty; 2020. 9(58):(29 May 2020). 45 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London



## Country of Publication

UK

## Abstract

**Background:** A cluster of pneumonia cases were reported by Wuhan Municipal Health Commission, China in December 2019. A novel coronavirus was eventually identified, and became the COVID-19 epidemic that affected public health and life. We investigated the psychological status and behavior changes of the general public in China from January 30 to February 3, 2020. **Methods:** Respondents were recruited via social media (WeChat) and completed an online questionnaire. We used the State-Trait Anxiety Inventory, Self-rating Depression Scale, and Symptom Checklist-90 to evaluate psychological status. We also investigated respondents' behavior changes. Quantitative data were analyzed by t-tests or analysis of variance, and classified data were analyzed with chi-square tests. **Results:** In total, 608 valid questionnaires were obtained. More respondents had state anxiety than trait anxiety (15.8% vs 4.0%). Depression was found among 27.1% of respondents and 7.7% had psychological abnormalities. About 10.1% of respondents suffered from phobia. Our analysis of the relationship between subgroup characteristics and psychological status showed that age, gender, knowledge about COVID-19, degree of worry about epidemiological infection, and confidence about overcoming the outbreak significantly influenced psychological status. Around 93.3% of respondents avoided going to public places and almost all respondents reduced Spring Festival-related activities. At least 70.9% of respondents chose to take three or more preventive measures to avoid infection. The three most commonly used prevention measures were making fewer trips outside and avoiding contact (98.0%), wearing a mask (83.7%), and hand hygiene (82.4%). **Conclusions:** We need to pay more attention to public psychological stress, especially among young people, as they are likely to experience anxiety, depression, and psychological abnormalities. Different psychological interventions could be formulated according to the psychological characteristics of different gender and age groups. The majority of respondents followed specific behaviors required by the authorities, but it will take time to observe the effects of these behaviors on the epidemic.

## Publication Type

Journal article.

<46>

## Accession Number

20203320185

## Author

Bashirian, S.; Jenabi, E.; Khazaei, S.; Barati, M.; Karimi-Shahanjarini, A.; Zareian, S.; Rezapur-Shahkolai, F.; Moeini, B.

Title

Factors associated with preventive behaviours of COVID-19 among hospital staff in Iran in 2020: an application of the Protection Motivation Theory.

Source

Journal of Hospital Infection; 2020. 105(3):430-433. 10 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This study was conducted to predict the preventive behaviours of healthcare workers (HCWs) towards COVID-19 based on the Protection Motivation Theory (PMT). This cross-sectional and analytical study was conducted on 761 HCWs in Hamadan, Iran, using multi-stage random sampling. The preventive behaviours against COVID-19 among HCWs were assessed at a relatively desirable level. Based on the PMT, threat and coping appraisal were predictors of protection motivation to conduct COVID-19 preventive behaviours ( $P < 0.001$ ). The intention was also predictive of COVID-19 preventive behaviours ( $P < 0.001$ ). Consideration of personnel's self-efficacy and their knowledge regarding the effectiveness of protective behaviours in designing staff training programmes are recommended.

Publication Type

Journal article.

<47>

Accession Number

20203320182

Author

Saqlain, M.; Munir, M. M.; Rehman, S. U.; Gulzar, A.; Naz, S.; Ahmed, Z.; Tahir, A. H.; Mashhood, M.

Title

Knowledge, attitude, practice and perceived barriers among healthcare workers regarding COVID-19: a cross-sectional survey from Pakistan.

Source

Journal of Hospital Infection; 2020. 105(3):419-423. 10 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

A self-administered validated (Cronbach's alpha=0.077) questionnaire was used to assess knowledge, attitude and practice among healthcare workers (HCWs) in Pakistan regarding coronavirus disease 2019 (COVID-19). Findings showed that HCWs have good knowledge (93.2%, N=386), a positive attitude [mean 8.43 (standard deviation 1.78)] and good practice (88.7%, N=367) regarding COVID-19. HCWs perceived that limited infection control material (50.7%, N=210) and poor knowledge regarding transmission (40.6%, N=168) were the major barriers to infection control. Regression analysis indicated that pharmacists were more likely to demonstrate good practice than other HCWs (odds ratio 2.247, 95% confidence interval 1.11-4.55, P=0.025). This study found that HCWs in Pakistan have good knowledge, but there are gaps in specific aspects of knowledge and practice that warrant attention.

Publication Type

Journal article.

<48>

Accession Number

20203320177

Author

Wang, X.; Liu, W.; Zhao, J.; Lu, Y.; Wang, X.; Yu, C.; Hu, S.; Shen, N.; Liu, W.; Sun, Z.; Li, W.

Title

Clinical characteristics of 80 hospitalized frontline medical workers infected with COVID-19 in Wuhan, China.

Source

Journal of Hospital Infection; 2020. 105(3):399-403. 10 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

More than 1000 medical workers have been infected with coronavirus disease 2019 (COVID-19) in China. From January 10th to February 24th, 2020, a total of 80 medical workers were admitted to Tongji Hospital, Wuhan, including 57 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) confirmed and 23 clinically diagnosed. The median age was 39 years (interquartile range: 32-48.5), 49 (61.25%) were women, and one patient died. The most common symptoms at onset were fever (65; 81.25%), cough (47; 58.75%), fatigue (28; 35%), myalgia (19; 23.75%), expectoration (19; 23.75%), and diarrhoea (15; 18.75%). Frontline medical workers admitted as patients to this single-centre hospital showed some unique clinical and laboratory findings compared with other patients in Wuhan province and elsewhere.

Publication Type

Journal article.

<49>

Accession Number

20203285630

Author

Xu LuYao; Li ChangXu; Tang ChaoHui; Wang ShouQian; Wang YingChao

Title

Management of patients with gallstones and acute cholecystitis during the epidemic of coronavirus diseases 2019. [Chinese]

Source

Journal of Clinical Hepatology; 2020. 36(6):1420-1422. 16 ref.

Publisher

Journal of Clinical Hepatology

Location of Publisher

Changchun

Country of Publication

China

Abstract

At present, the epidemic of coronavirus disease 2019 is still serious, and the prevention and control of this epidemic is taken seriously throughout the country. As one of the most common acute abdominal diseases in hepatobiliary surgery, gallstones with acute cholecystitis has sudden onset and rapid progression and thus requires early diagnosis and timely and effective treatment. During the prevention and control of the epidemic, patients should be admitted properly to reduce nosocomial infection. Gallstones with acute cholecystitis is often accompanied by pyrexia, and therefore, the presence or absence of severe acute respiratory syndrome coronavirus 2 infection should be clarified. Treatment regimen should be selected appropriately and individualized treatment measure should be developed. While ensuring that patients receive timely and effective diagnosis and treatment, hospitals should adopt prevention and control measures for patients and their caregivers to reduce nosocomial infection. The personal protection of medical personnel should also be taken seriously, and scientific measures should be implemented to guarantee their safety.

Publication Type

Journal article.

<50>

Accession Number

20203304920

Author

Syed Muhammad Mashhood Ali Bokhari; Fatima Mahmood; Syed Muhammad Saud Ali Bokhari

Title

Case report: diagnosis of COVID-19 versus tropical diseases in Pakistan.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 103(1):77-78. 6 ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

A 25-year-old medical student presented in Multan, Pakistan with a high fever, cough, myalgia, and diarrhea consistent with the typical signs and symptoms of novel coronavirus disease (COVID-19). The patient had traveled to high COVID-19-risk areas within Pakistan and had no significant medical and surgical history. Based on nasopharyngeal and oropharyngeal swab testing, the patient was found to be negative for COVID-19. He subsequently developed a diffuse rash and had serology consistent with dengue and measles. The patient was treated symptomatically, and his condition gradually improved over 7 days. This case highlights the high prevalence of many tropical diseases in low-income countries and the need for clinicians to consider alternate diagnoses in addition to testing for COVID-19 during the pandemic.

Publication Type

Journal article.

<51>

Accession Number

20203296259

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## Author

Liu Wei; Zhou PengXiang; Chen Ken; Ye ZhiKang; Liu Fang; Li XiaoTong; He Na; Wu ZiYang; Zhang Qi; Gong XuePeng; Tang QiYu; Du Xin; Ying YingQiu; Xu XiaoHan; Zhang YaHui; Liu JinYu; Li Yun; Shen Ning; Couban, R. J.; Ibrahim, Q. I.; Guyatt, G.; Zhai SuoDi

## Title

Efficacy and safety of antiviral treatment for COVID-19 from evidence in studies of SARS-CoV-2 and other acute viral infections: a systematic review and meta-analysis.

## Source

Canadian Medical Association Journal; 2020. 192(27):E734-E744. 52 ref.

## Publisher

Canadian Medical Association

## Location of Publisher

Ottawa

## Country of Publication

Canada

## Abstract

**BACKGROUND:** Antiviral medications are being given empirically to some patients with coronavirus disease 2019 (COVID-19). To support the development of a COVID-19 management guideline, we conducted a systematic review that addressed the benefits and harms of 7 antiviral treatments for COVID-19. **METHODS:** We searched MEDLINE, Embase, Cochrane Central Register of Controlled Trials (CENTRAL), PubMed and 3 Chinese databases (CNKI, WANFANG and SinoMed) through Apr. 19, medRxiv and Chinaxiv through Apr. 27, and Chongqing VIP through Apr. 30, 2020. We included studies of ribavirin, chloroquine, hydroxychloroquine, umifenovir (arbidol), favipravir, interferon and lopinavir/ritonavir. If direct evidence from COVID-19 studies was not available, we included indirect evidence from studies of severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) for efficacy outcomes and other acute respiratory viral infections for safety outcomes. **RESULTS:** In patients with nonsevere COVID-19 illness, the death rate was extremely low, precluding an important effect on mortality. We found only very low-quality evidence with little or no suggestion of benefit for most treatments and outcomes in both nonsevere and severe COVID-19. An exception was treatment with lopinavir/ritonavir, for which we found low-quality evidence for a decrease in length of stay in the intensive care unit (risk difference 5 d shorter, 95% confidence interval [CI] 0 to 9 d) and hospital stay (risk difference 1 d shorter, 95% CI 0 to 2 d). For safety outcomes, evidence was of low or very low quality, with the exception of treatment with lopinavir/ritonavir for which moderate-quality evidence suggested likely increases in diarrhea, nausea and vomiting. **INTERPRETATION:** To date, persuasive evidence of important benefit in COVID-19 does not exist for any antiviral treatments, although for each treatment evidence has not excluded important benefit. Additional randomized controlled trials involving patients with COVID-19 will be needed before such treatments can be administered with confidence.

Publication Type

Journal article.

<52>

Accession Number

20203292486

Author

Newman, A.; Smith, D.; Ghai, R. R.; Wallace, R. M.; Torchetti, M. K.; Loiacono, C.; Murrell, L. S.; Carpenter, A.; Moroff, S.; Rooney, J. A.; Behravesh, C. B.

Title

First reported cases of SARS-CoV-2 infection in companion animals - New York, March-April 2020.

Source

Morbidity and Mortality Weekly Report; 2020. 69(23):710-713. 10 ref.

Publisher

Epidemiology Program Office, Centers for Disease Control and Prevention (CDC)

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

The clinical signs, diagnosis, zoonotic implications and public health responses associated with the diagnosis of SARS-CoV-2 in 2 cats in New York, USA, in March-April 2020 are described.

Publication Type

Journal article.



<53>

Accession Number

20203292468

Author

Fenton, P. M.

Title

Helping Africa to breathe when COVID-19 strikes.

Source

International Journal of Tuberculosis and Lung Disease; 2020. 24(6):636-637.

Publisher

International Union Against Tuberculosis and Lung Disease

Location of Publisher

Paris

Country of Publication

France

Publication Type

Correspondence.

<54>

Accession Number

20203294858

Author

Khamis, F.; Al-Zakwani, I.; Naamani, H. A.; Lawati, S. A.; Pandak, N.; Omar, M. B.; Bahrani, M. A.; Bulushi, Z. A.; Khalili, H. A.; Salmi, I. A.; Ismaili, R. A.; Awaidy, S. T. A.

## Title

Clinical characteristics and outcomes of the first 63 adult patients hospitalized with COVID-19: an experience from Oman.

## Source

Journal of Infection and Public Health; 2020. 13(7):906-913. 32 ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

**Introduction:** To identify the clinical characteristics and outcomes of hospitalized patients with COVID-19 in Oman. **Methods:** A case series of hospitalized COVID-19 laboratory-confirmed patients between February 24th through April 24th, 2020, from two hospitals in Oman. Analyses were performed using univariate statistics. **Results** The cohort included 63 patients with an overall mean age of 48 +/- 16 years and 84% (n = 53) were males. A total of 38% (n = 24) of the hospitalized patients were admitted to intensive care unit (ICU). Fifty one percent (n = 32) of patients had at least one co-morbidity with diabetes mellitus (DM) (32%; n = 20) and hypertension (32%; n = 20) as the most common co-morbidities followed by chronic heart and renal diseases (12.8%; n = 8). The most common presenting symptoms at onset of illness were fever (84%; n = 53), cough (75%; n = 47) and shortness of breaths (59%; n = 37). All except two patients (97%; n = 61) were treated with either chloroquine or hydroxychloroquine, while the three most prescribed antibiotics were ceftriaxone (79%; n = 50), azithromycin (71%; n = 45), and the piperacillin/tazobactam combination (49%; n = 31). A total of 59% (n = 37), 49% (n = 31) and 24% (n = 15) of the patients were on lopinavir/ritonavir, interferons, or steroids, respectively. Mortality was documented in (8%; n = 5) of the patients while 68% (n = 43) of the study cohort recovered. Mortality was associated with those that were admitted to ICU (19% vs 0; p = 0.009), mechanically ventilated (31% vs 0; p = 0.001), had DM (20% vs 2.3%; p = 0.032), older (62 vs 47 years; p = 0.045), had high total bilirubin (43% vs 2.3%; p = 0.007) and those with high C-reactive protein (186 vs 90 mg/dL; p = 0.009) and low corrected calcium (15% vs 0%; p = 0.047). **Conclusions:** ICU admission, those on mechanical ventilation, the elderly, those with high total bilirubin and low corrected calcium were associated with high mortality in hospitalized COVID-19 patients.

## Publication Type

Journal article.

<55>

Accession Number

20203302388

Author

Dost, B. C.; Koksai, E.; Terzi, &Ouml;.; Bilgin, S.; Ustun, Y. B.; Arslan, H. N.

Title

Attitudes of anesthesiology specialists and residents toward patients infected with the novel coronavirus (COVID-19): a national survey study.

Source

Surgical Infections; 2020. 21(4):349-355. 19 ref.

Publisher

Mary Ann Liebert, Inc.

Location of Publisher

New Rochelle

Country of Publication

USA

Abstract

Background: The novel coronavirus (COVID-19) emerged in Wuhan, China, in December 2019. This study aims to evaluate the knowledge of anesthesiology specialists and residents in Turkey about COVID-19 and their attitudes toward the strategies and application methods to be used for a suspected/confirmed COVID-19 case that needs to be operated on or followed up in an intensive care unit, as well as to raise awareness about this issue. Methods: This descriptive study comprised anesthesiology specialists and residents working in various health institutions in Turkey. The data used in this study were obtained online between March 13, 2020 and March 25, 2020 through the website SurveyMonkey (SurveyMonkey, San Mateo, CA) by using a survey form. We contacted members of the Turkish Anaesthesiology and Reanimation Society through the social media platforms Twitter, LinkedIn, and WhatsApp, as well as through their e-mail addresses and invited them to participate in the study. Those who agreed to participate responded to the aforementioned survey. We used SPSS 22.0 (IBM, Armonk, NY) to analyze the survey data statistically. Results: A total of 346 anesthesiology specialists and residents participated in the study. Although the majority of the participants exhibited the correct attitudes toward airway management, research assistants with little professional experience were observed to be undecided or had the tendency to make incorrect decisions. Conclusions: The COVID-19 pandemic is spreading rapidly worldwide. The incidence of COVID-19 cases is increasing daily, and this disease can cause patient death. Anesthesiology specialists and residents who perform emergency

operations on these patients in settings other than intensive care units should follow simple and easy-to-understand algorithms to ensure safety. The provision of theoretical and practical training to healthcare providers before they meet patients will help ensure patient-healthcare provider safety and prevent panic, which can cause distress among healthcare providers.

#### Publication Type

Journal article.

<56>

#### Accession Number

20203300446

#### Author

Billah, A.; Rahman, M. A.; Hossain, M. T.

#### Title

Factors influencing Muslim and non-Muslim consumers' consumption behavior: a case study on halal food.

#### Source

Journal of Foodservice Business Research; 2020. 23(4):324-349. 123 ref.

#### Publisher

Routledge

#### Location of Publisher

Philadelphia

#### Country of Publication

USA

#### Abstract

Anxieties associated with the coronavirus disease (COVID-19) outbreak has kept people from attending different events and procuring food from unsafe sources. Although there is no evidence to support the transmission of COVID-19 by food, it is interesting to explore how people select food items and whether their consumption choices are influenced by ethical standards. Based on empirical evidence, this study provides new insights into the consumer behavior and purchase intention for halal

food products in a developing country context. This study adopted Ajzen's theory of planned behavior (TPB) to study the factors influencing the overall consumer buying behavior toward halal food products. The study used a questionnaire survey to collect data from 267 consumers across 10 provinces of southern Thailand. Using descriptive statistics and correlation and regression analyzes, it analyzed the data to determine the influencing factors. The result indicates that, among all the factors, consumers' habits and knowledge of halal food significantly influence consumer behavior and purchase intention. The findings of this study suggest that an understanding of purchase intention toward halal food can influence consumer behavior in relation to sustainable consumption.

Publication Type

Journal article.

<57>

Accession Number

20203302879

Author

Liu RenDong; Huo Feng; Wang ShaoPing; Zheng YuJian; Ouyang Qing; Zhang Bao; Cai ZhiPing

Title

A single center experience in prevention and control of infection risk related to liver transplantation during the COVID-19 outbreak. [Chinese]

Source

Chinese Journal of Digestive Surgery; 2020. 19(6):673-679. 31 ref.

Publisher

Chinese Medical Association

Location of Publisher

Beijing

Country of Publication

China

Abstract

Objective: To investigate the clinical evaluation effects of Corona Virus Disease 2019 (COVID-19) risk assessment scale on preoperative and surgical risk of liver transplantation during the COVID-19 outbreak. Methods: The retrospective and descriptive study was conducted. The clinicopathological data of 6 liver transplant recipients who were admitted to Southern Theater Command General Hospital of PLA between January 20 and March 27, 2020 were collected. There were 5 males and 1 female, aged from 42.0 to 62.0 years, with a median age of 53.0 years. There were 6 donors including 5 males and 1 female, aged from 24.0 to 60.0 years, with a median age of 41.5 years. All the donor livers were obtained through the China Organ Transplant Response System. Liver transplantation was performed in the fixed negative pressure operating room, and secondary protective measures were adopted for low-risk donors. Classic orthotopic liver transplantation or Piggyback liver transplantation was performed according to the specific situations of the recipients. Medical staffs in the ward were exposed to the secondary protective measures, and the three-grade protective measures were adopted for medical staffs when the liver transplant recipients had fever or suspected infection. Observation indicators: (1) risk assessment of COVID-19 on liver transplant recipients; (2) risk assessment of COVID-19 on medical staffs of liver transplantation; (3) treatment situations of liver transplant recipients; (4) postoperative situations of liver transplant recipients; (5) follow-up of liver transplant recipients; (6) infection of medical staffs of liver transplantation. Follow-up was performed using outpatient examination or telephone interview to detect whether liver transplant recipients had suspected or confirmed COVID-19 infection up to March 2020. Medical staffs who were involved in organ acquisition, transplantation surgery and ward management were followed up to detect whether they had suspected or confirmed COVID-19 infection within 14 days. Measurement data with normal distribution were represented as Mean $\pm$ SD, and measurement data with skewed distribution were described as M (range). Count data were expressed as absolute numbers. Results: (1) Risk assessment of COVID-19 on liver transplant recipients: all the 6 recipients and their related families were confirmed no contact with suspected COVID-19 patients or travel history in the epidemic area within 14 days. Of the 6 recipients, 1 was diagnosed with fever with body temperature of 38.1degreesC and was tested negative for chest computer tomography (CT) examination and nucleic acid test for COVID-19; 1 was diagnosed with fever and hypoxemia with body temperature of 38.5degreesC and was tested negative for nucleic acid test for COVID-19, and the results of chest CT examination showed large amount of pleural effusion in both lungs without invasive pneumonia; other 4 recipients had no clinical symptoms of COVID-19 with negative results of chest CT examination and nucleic acid test for COVID-19. Five of the 6 recipients had no history of contact with COVID-19 patients and 1 recipient had treatment history at hospital of risk level 1. The preoperative risk level of COVID-19 was low in all the 6 liver transplant recipients. (2) Risk assessment of COVID-19 on medical staffs of liver transplantation: of the 6 recipients, 5 had the waiting hospital of risk level 0 and 1 had the waiting hospital of risk level 1. Six recipients had the transplant hospital of risk level 0. (3) Treatment situations of liver transplant recipients: of the 6 recipients, 2 underwent classic orthotopic liver transplantation and 4 underwent piggyback liver transplantation. The cold ischemia time of liver, time of anhepatic phase, volume of intraoperative blood loss, operation time, treatment time at intensive care unit of the 6 recipients were (5.9 $\pm$ 2.4) hours, (49 $\pm$ 14) minutes, 1 500 mL(range, 800-1 800 mL), (8.9 $\pm$ 2.1) hours, 2 days (range, 1-4 days), respectively. Of the 6 recipients, 2 required adjustment of the immunosuppression program, and 4 did not change the immunosuppression program. (4) Postoperative situations of liver transplant recipients: of the 6 recipients, 5 had no postoperative serious infection and 1 had postoperative serious infection. The 5 recipients without postoperative serious infection had the range of the highest temperature as

37.8-38.5degreesC, and returned to normal temperature within postoperative 3 days. All of the 5 recipients who had no postoperative serious infection received chest CT examination with no obvious manifestation of viral pneumonia and were tested negative for nucleic acid test for COVID-19 at 1 week postoperatively, and then were discharged from hospital. One recipient who had postoperative serious infection had gastrointestinal fistula and repeated fever at postoperative 7 days with the highest temperature as 39.2degreesC. This recipient had body temperature returned to normal and good function of the graft after treatment in the isolation ward with active drainage, and was transferred back to local hospital for further rehabilitation treatment. The duration of hospital stay of the 6 recipients were 30 days(range, 15-74 days). (5) Follow-up of liver transplant recipients: all the 6 recipients were followed up for 31.5 days(range, 12.0-64.0 days) with the normal body temperature, and they had negative results of viral pneumonia for chest CT examination and nucleic acid test for COVID-19. (6) Infection of medical staffs of liver transplantation: surgeons, nurses, anesthetists, medical staffs at ICU and medical staffs at liver transplantation center who participated in liver transplantation had good health within postoperative 14 days, without suspected or confirmed cases of COVID-19 infection. Conclusions: The COVID-19 risk assessment scale has good safety for liver transplant recipients during the COVID-19 outbreak. It is suggested that organ transplantation can be carried out in low-risk recipients and cautiously carried out in recipients of uncertain risk, but organ transplantation should not be carried out in high-risk recipients.

#### Publication Type

Journal article.

<58>

#### Accession Number

20203294131

#### Author

Coleman, J. J.; Manavi, K.; Marson, E. J.; Botkai, A. H.; Sapey, E.

#### Title

COVID-19: to be or not to be; that is the diagnostic question.

#### Source

Postgraduate Medical Journal; 2020. 96(1137):392-398. 54 ref.

#### Publisher

BMJ Publishing Group

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Location of Publisher

London

Country of Publication

UK

Abstract

Since the first cases in December 2019, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has rapidly spread across the globe, resulting in the COVID-19 pandemic. Early clinical experiences have demonstrated the wide spectrum of SARS-CoV-2 presentations, including various reports of atypical presentations of COVID-19 and possible mimic conditions. This article summarises the current evidence surrounding atypical presentations of COVID-19 including neurological, cardiovascular, gastrointestinal, otorhinolaryngology and geriatric features. A case from our hospital of pneumocystis pneumonia initially suspected to be COVID-19 forms the basis for a discussion surrounding mimic conditions of COVID-19. The dual-process model of clinical reasoning is used to analyse the thought processes used to make a diagnosis of COVID-19, including consideration of the variety of differential diagnoses. While SARS-CoV-2 is likely to remain on the differential diagnostic list for a plethora of presentations for the foreseeable future, clinicians should be cautious of ignoring other potential diagnoses due to availability bias. An awareness of atypical presentations allows SARS-CoV-2 to be a differential so that it can be appropriately investigated. A knowledge of infectious mimics prevents COVID-19 from overshadowing other diagnoses, hence preventing delayed diagnosis or even misdiagnosis and consequent adverse outcomes for patients.

Publication Type

Journal article.

<59>

Accession Number

20203294118

Author

Vijayvargiya, P.; Garrigos, Z. E.; Castillo Almeida, N. E.; Gurram, P. R.; Stevens, R. W.; Razonable, R. R.

Title

Treatment considerations for COVID-19 a critical review of the evidence (or lack thereof).

Source



Publisher

Mayo Foundation for Medical Education and Research

Location of Publisher

Rochester

Country of Publication

USA

Abstract

The novel severe acute respiratory syndrome coronavirus 2 is causing a worldwide pandemic that may lead to a highly morbid and potentially fatal coronavirus disease 2019 (COVID-19). There is currently no drug that has been proven as an effective therapy for COVID-19. Several candidate drugs are being considered and evaluated for treatment. This includes clinically available drugs, such as chloroquine, hydroxychloroquine, and lopinavir/ritonavir, which are being repurposed for the treatment of COVID-19. Novel experimental therapies, such as remdesivir and favipiravir, are also actively being investigated for antiviral efficacy. Clinically available and investigational immunomodulators, such as the interleukin 6 inhibitors tocilizumab and sarilumab and the anti-granulocyte-macrophage colony-stimulating factor lenzilumab, are being tested for their anticipated effect in counteracting the pro-inflammatory cytokine environment that characterizes severe and critical COVID-19. This review article examines the evidence behind the potential use of these leading drug candidates for the treatment of COVID-19. The authors conclude, based on this review, that there is still no high-quality evidence to support any of these proposed drug therapies. The authors, therefore, encourage the enrollment of eligible patients to multiple ongoing clinical trials that assess the efficacy and safety of these candidate therapies. Until the results of controlled trials are available, none of the suggested therapeutics is clinically proven as an effective therapy for COVID-19.

Publication Type

Journal article.

<60>

Accession Number

20203297783

Author

Al-Jameel, W.; Al-Mahmood, S. S.

Title

Similarities and differences of COVID-19 and avian infectious bronchitis from molecular pathologist and poultry specialist view point.

Source

Iraqi Journal of Veterinary Sciences; 2020. 34(2):223-231. 84 ref.

Publisher

College of Veterinary Medicine, University of Mosul

Location of Publisher

Mosul

Country of Publication

Iraq

Abstract

Coronaviruses (CoVs) are important RNA viruses that affect respiratory, gastrointestinal and urinary system of human being and birds. These viruses originated from the subfamily Coronavirinae which genetically includes Alphacoronavirus, Beta coronavirus, Gamma coronavirus and Delta coronavirus. The sequencing analysis of the genome showed that COVID-19 caused by SARS-CoV-2 belongs to Beta coronavirus genus and avian infectious bronchitis caused by IBV comes from Gamma coronavirus genus. Over the past few decades and until now, the world showed that endemic outbreaks of infectious bronchitis in avian caused by IBV. Once more, the world sees the emergence of another new human coronavirus COVID-19 outbreak due to a new strain called SARS-CoV-2. Whole genetic material and comparative genomic analysis exhibited that IBV and SARS-CoV-2 have particularly same genomic structures and characteristics. Both have a spike protein in the genome structure which allows that SARS-CoV-2 attaches to their human select cells throughout ACE2 receptors, that are notably reported in the lung and kidney. While IBV uses alpha (2,3) linked sialic acids-dependent manner for bind to the avian tissues which is notably reported in the lung and kidney. The two diseases are produced a pulmonary and urinary infection that lead to sneezing, gasping, respiratory massive destruction, severe pneumonia and renal failure. This review will introduce a general overview of two diseases and describe the phylogeny, epidemiology, pathogenesis, clinical features, autopsy report and microscopic lesions.

Publication Type

Journal article.

<61>

Accession Number

20203275812

Author

Ruiz-Roso, M. B.; Carvalho Padilha, P. de; Mantilla-Escalante, D. C.; Ulloa, N.; Brun, P.; Acevedo-Correa, D.; Ferreira Peres, W. A.; Martorell, M.; Tschoepke Aires, M.; Oliveira Cardoso, L. de; Carrasco-Marín, F.; Paternina-Sierra, K.; Rodriguez-Meza, J. E.; Montero, P. M.; Bernabé, G.; Pauletto, A.; Taci, X.; Visioli, F.; Dávalos, A.

Title

Covid-19 confinement and changes of adolescent's dietary trends in Italy, Spain, Chile, Colombia and Brazil.

Source

Nutrients; 2020. 12(6)33 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Confinement due to the COVID-19 pandemic can influence dietary profiles, especially those of adolescents, who are highly susceptible to acquiring bad eating habits. Adolescents' poor dietary habits increase their subsequent risk of degenerative diseases such as obesity, diabetes, cardiovascular pathologies, etc. Our aim was to study nutritional modifications during COVID-19 confinement in adolescents aged 10 to 19 years, compare them with their usual diet and dietary guidelines, and identify variables that may have influenced changes. Data were collected by an anonymous online questionnaire on food intake among 820 adolescents from Spain, Italy, Brazil, Colombia, and Chile. The results show that COVID-19 confinement did influence their dietary habits. In particular, we recorded modified consumption of fried food, sweet food, legumes, vegetables, and fruits. Moreover, gender, family members at home, watching TV during mealtime, country of residence, and maternal education were diversely correlated with adequate nutrition during COVID-19 confinement. Understanding the adolescents' nutrition behavior during COVID-19 lockdown will help public health authorities reshape future policies on their nutritional recommendations, in preparation for future pandemics.

Publication Type

<62>

Accession Number

20203302136

Author

Deshmukh, S. K.

Title

Impact of lockdown on agriculture and allied sector in Washim district.

Source

Agriculture Update; 2020. 15(1/2):130-136. 10 ref.

Publisher

Hind Agri-Horticultural Society

Location of Publisher

Muzaffarnagar

Country of Publication

India

Abstract

Study on Impact of COVID-19 lockdown on agriculture and allied sector, best emerging practices in production, processing, value addition and marketing and initiatives of Krishi Vigyan Kendra to update farmer in these circumstances was carried out by KVK in the district. The data on impact of COVID-19 on agriculture and allied sector reveals that 50 per cent Rabi crops harvesting delayed due to non-availability of labour and field operations were costlier. 34 per cent farmers faced problem of sale of farm produce, turmeric crop harvesting losses upto 75 per cent mostly small and marginal farmers were affected due to lockdown. Fruit and vegetable growers has to succumb 85 per cent losses during sale, storage and marketing due to district boundaries blocking. Marketing problem has shown the another way of direct marketing through personal contact or use social media group. Similarly due to lockdown best agriculture practices has emerged in the field of production, processing, marketing and supply chain management. 30 per cent losses in dairy and 87 per cent losses in poultry farming enterprise has been indicated in the study.

Publication Type

Journal article.

<63>

Accession Number

20203303325

Author

Wang QiaoXia; Wang XiaoPing; Lin HuanPing

Title

The role of triage in the prevention and control of COVID-19.

Source

Infection Control and Hospital Epidemiology; 2020. 41(7):772-776. 11 ref.

Publisher

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

Objective: To prevent and control public health emergencies, we set up a prescreening and triage workflow and analyzed the effects on coronavirus disease 2019 (COVID-19). Methods: In accordance with the requirements of the level 1 emergency response of public health emergencies in Shaanxi Province, China, a triage process for COVID-19 was established to guide patients through a 4-level triage process during their hospital visits. The diagnosis of COVID-19 was based on positive COVID-19 nucleic acid testing according to the unified triage standards of the Guidelines for the Diagnosis and Treatment of Novel Coronavirus Pneumonia (Trial version 4),<sup>4</sup> issued by the National Health Commission of the People's Republic of China. Results: The screened rate of suspected COVID-19 was 1.63% (4 of 246) in the general fever outpatient clinic and 8.28% (13 of 157) in the COVID-19 outpatient

clinic, and they showed a significant difference ( $P = .00$ ). Conclusions: The triage procedure effectively screened the patients and identified the high-risk population.

Publication Type

Journal article.

<64>

Accession Number

20203307685

Author

Jiwani, S. S.; Antiporta, D. A.

Title

Inequalities in access to water and soap matter for the COVID-19 response in sub-Saharan Africa.

Source

International Journal for Equity in Health; 2020. 19(82):(3 June 2020). 11 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The COVID-19 pandemic has spread rapidly since the first case notification of the WHO in December 2019. Lacking an effective treatment, countries have implemented non-pharmaceutical interventions including social distancing measures and have encouraged maintaining adequate and frequent hand hygiene to slow down the disease transmission. Although access to clean water and soap is universal in high-income settings, it remains a basic need many do not have in low- and middle-income settings. We analyzed data from Demographic and Health Surveys (DHS) of 16 countries in sub-Saharan Africa, using the most recent survey since 2015. Differences in the percentage of households with an observed handwashing place with water and soap were estimated by place of residence and wealth quintiles.

Equiplots showed wide withincountry disparities, disproportionately affecting the poorest households and rural residents, who represent the majority of the population in most of the countries. Social inequalities in access to water and soap matter for the COVID-19 response in sub-Saharan Africa. Interventions such as mass distribution of soap and ensuring access to clean water, along with other preventive strategies should be scaled up to reach the most vulnerable populations.

Publication Type

Journal article.

<65>

Accession Number

20203300785

Author

Hernández-García, I.; Giménez-Jilvez, T.

Title

Characteristics of Youtube videos in Spanish on how to prevent COVID-19.

Source

International Journal of Environmental Research and Public Health; 2020. 17(13)37 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Objective: To analyze the characteristics of YouTube videos in Spanish on the basic measures to prevent coronavirus disease 2019 (COVID-19). Methods: On 18 March 2020, a search was conducted on YouTube using the terms "Prevencion Coronavirus" and "Prevencion COVID-19". We studied the associations between the type of authorship and the country of publication with other variables (such as the number of likes and basic measures to prevent COVID-19 according to the World Health

Organization, among others) with univariate analysis and a multiple logistic regression model. Results: A total of 129 videos were evaluated; 37.2% were produced in Mexico (25.6%) and Spain (11.6%), and 56.6% were produced by mass media, including television and newspapers. The most frequently reported basic preventive measure was hand washing (71.3%), and the least frequent was not touching the eyes, nose, and mouth (24.0%). Hoaxes (such as eating garlic or citrus to prevent COVID-19) were detected in 15 videos (10.9%). In terms of authorship, papers produced by health professionals had a higher probability of reporting hand hygiene (OR (95% CI) = 4.20 (1.17-15.09)) and respiratory hygiene (OR (95% CI) = 3.05 (1.22-7.62)) as preventive measures. Conclusion: Information from YouTube in Spanish on basic measures to prevent COVID-19 is usually not very complete and differs according to the type of authorship. Our findings make it possible to guide Spanish-speaking users on the characteristics of the videos to be viewed in order to obtain reliable information.

#### Publication Type

Journal article.

<66>

#### Accession Number

20203300758

#### Author

Sampa, M. B.; Hoque, M. R.; Islam, R.; Nishikitani, M.; Nakashima, N.; Yokota, F.; Kikuchi, K.; Rahman, M. M.; Shah, F.; Ahmed, A.

#### Title

Redesigning Portable Health Clinic platform as a Remote Healthcare System to tackle COVID-19 pandemic situation in unreached communities.

#### Source

International Journal of Environmental Research and Public Health; 2020. 17(13)54 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication



Switzerland

## Abstract

Medical staff carry an inordinate risk of infection from patients, and many doctors, nurses, and other healthcare workers are affected by COVID-19 worldwide. The unreached communities with noncommunicable diseases (NCDs) such as chronic cardiovascular, respiratory, endocrine, digestive, or renal diseases became more vulnerable during this pandemic situation. In both cases, Remote Healthcare Systems (RHS) may help minimize the risk of SARS-CoV-2 transmission. This study used the WHO guidelines and Design Science Research (DSR) framework to redesign the Portable Health Clinic (PHC), an RHS, for the containment of the spread of COVID-19 as well as proposed corona logic (C-Logic) for the main symptoms of COVID-19. Using the distributed service platform of PHC, a trained healthcare worker with appropriate testing kits can screen high-risk individuals and can help optimize triage to medical services. PHC with its new triage algorithm (C-Logic) classifies the patients according to whether the patient needs to move to a clinic for a PCR test. Through modified PHC service, we can help people to boost their knowledge, attitude (feelings/beliefs), and self-efficacy to execute preventing measures. Our initial examination of the suitability of the PHC and its associated technologies as a key contributor to public health responses is designed to "flatten the curve", particularly among unreached high-risk NCD populations in developing countries. Theoretically, this study contributes to design science research by introducing a modified healthcare providing model.

## Publication Type

Journal article.

<67>

## Accession Number

20203300756

## Author

Liu Cong; Liu Yi

## Title

Media exposure and anxiety during COVID-19: the mediation effect of media vicarious traumatization.

## Source

International Journal of Environmental Research and Public Health; 2020. 17(13)48 ref.

## Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The rapid spread and high death rates of the COVID-19 pandemic resulted in massive panic and anxiety all over the world. People rely heavily on media for information-seeking during the period of social isolation. This study aimed to explore the relationship between media exposure and anxiety, and highlighted the underlying mechanisms mediated by the media vicarious traumatization effect. A total of 1118 Chinese citizens participated in the online survey, who were from 30 provinces in mainland China. Results showed that all four types of media (official media, commercial media, social media, and overseas media) cause vicarious traumatization to their audiences to different degrees. It was also found that the impact of media exposure on anxiety was mediated by media vicarious traumatization: there were full mediation effects for commercial media exposure and overseas media exposure, while there were indirect-only mediation effects for official media exposure and social media exposure. Audiences staying in cities with a relatively severe pandemic were more susceptible to the vicarious traumatization caused by commercial media compared to those staying in Hubei. This study expanded the concept and application of vicarious traumatization to the mediated context, and the findings provided insightful advice to media practitioners in the face of major crisis.

Publication Type

Journal article.

<68>

Accession Number

20203300732

Author

Helou, S.; El-Helou, E.; Abou-Khalil, V.; Wakim, J.; El-Helou, J.; Daher, A.; El-Hachem, C.

Title

The effect of the COVID-19 pandemic on physicians' use and perception of telehealth: the case of Lebanon.

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Source

International Journal of Environmental Research and Public Health; 2020. 17(13)37 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 pandemic forced physicians to quickly adapt and find ways to provide their usual offline services by using online tools. We aimed to understand how physicians adapted to the sudden need for telehealth and if their perception of telehealth changed due to their experience during the COVID-19 pandemic. We conducted an exploratory sequential mixed-methods study. We interviewed five Lebanese physicians and thematically analyzed the interviews. We developed a questionnaire based on the analysis results and administered it online to physicians in Lebanon. In total, 140 responses were collected. We found that, during the COVID-19 pandemic, physicians engaged in more telehealth activities in the realms of telemedicine, public awareness, continuing medical education, research, administration, and teaching. They also expanded their repertoire of information-technology tools. Our results also show that there was a significant shift in the physicians' perceptions, indicating greater openness and willingness to adopt telehealth services. However, a significant amount of skepticism and uncertainty regarding telemedicine remains, especially concerning its efficiency, safety, and the adequacy of existing regulations. Based on our findings, we offer recommendations for health IT policy makers, developers, and researchers, to sustain the continuity of telehealth activities beyond the COVID-19 pandemic.

Publication Type

Journal article.

<69>

Accession Number

20203300729

Author

Nienhaus, A.; Hod, R.

Title

COVID-19 among health workers in Germany and Malaysia.

Source

International Journal of Environmental Research and Public Health; 2020. 17(13)29 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

We report on the suspected case reports filed for SARS-CoV-2 infections and COVID-19 illnesses among health and social welfare workers in Germany. In addition, we report about COVID-19 in health workers in Malaysia. Claims for occupational diseases caused by SARS-CoV-2 are recorded separately in a database of the Statutory Accident Insurance and Prevention in the Health and Welfare Services (BGW). This database is analyzed according to its content as of May 22, 2020. In addition, the notifiable cases of SARS-CoV-2 infections from personnel in medical institutions (e.g., clinics and doctor's office) and social welfare institutions (e.g., nursing homes, shelters and refugee camps) following the German Infection Protection Act are analyzed. The report from Malaysia is based on personal experience and publications of the government. In Germany at present, 4398 suspected case reports for the diagnosis of SARS-CoV-2 infections among health and social workers have been filed. This figure is four times the number of all reported infections normally received per year. The majority of claims, regardless of being a confirmed infection, concerned nurses (n = 6927, 63.9%). The mortality rate for workers infected with SARS-CoV-2 is 0.2% to 0.5%. Doctors are affected by severe illness more frequently than other occupational groups (8.1% vs. 4.1%). In Malaysia, work-related infection of health workers (HW) occurred mainly when COVID-19 was not suspected in patients and no adequate personal protective equipment (PPE) was worn. Although knowledge on the spread of SARS-CoV-2 infections among workers remains limited, the impact appears to be substantial. This is supported by the mortality rate among infected workers. Occupational health check-ups carried out at the present time should be systematically analyzed in order to gain more information on the epidemiology of COVID-19 among HW. Since the supply and use of PPE improved, the infection risk of HW in Malaysia seems to have decreased.

Publication Type

Journal article.

<70>

Accession Number

20203300719

Author

Kim YoungJae; Cho JeongHyung; Kim ESack

Title

Differences in sense of belonging, pride, and mental health in the Daegu metropolitan region due to COVID-19: comparison between the presence and absence of national disaster relief fund.

Source

International Journal of Environmental Research and Public Health; 2020. 17(13)47 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Korea's Daegu Metropolitan City once had the second highest rate of COVID-19 infection after Wuhan in China. Following the outbreak, the government provided the first national disaster relief fund to citizens as financial aid. This study investigated whether the sense of regional belonging, pride, and mental health among 550 citizens of Daegu differed between the times before and after COVID-19, based on the presence or absence of the disaster relief fund. Frequency analysis, descriptive statistical analysis, and t-tests were conducted using the SPSS 25.0 program. Results showed that the sense of belonging was higher after COVID-19 than before, while pride was lower. Individuals who received the disaster relief fund showed higher levels of regional belonging and pride with statistical significance. The prevalence of melancholy and depression increased after COVID-19, but the presence or absence of the fund did not lead to a significant difference. Thus, in case of a future national disaster level, provision of the disaster relief fund can raise the sense of regional belonging and pride, in order to elicit communication among local residents toward overcoming difficulties. Furthermore, during challenging disaster situations, central and local governments should provide diverse programs for the citizens' mental health care.

Publication Type

<71>

Accession Number

20203300702

Author

Choi ChulHwan; Bum ChulHo

Title

Changes in the type of sports activity due to COVID-19: hypochondriasis and the intention of continuous participation in sports.

Source

International Journal of Environmental Research and Public Health; 2020. 17(13)31 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

This study focused on empirically analyzing sport activity participants' perceptions of hypochondriasis caused by fear of infection and changes in continuous participatory behavior patterns. To this end, a comparative analysis was conducted with a focus on the forms of participation and age of sport activity participants. For the final comparative analysis, a 2 × 3 factorial multivariate analysis of variance was conducted after confirming the validity and reliability of data based on 229 questionnaires collected from healthy respondents who have never been infected with COVID-19. The results showed statistically significant differences between worry about illness, which is a subscale of hypochondriasis, disease phobia, thanatophobia, and intent to continue according to age. Statistically significant differences were also found when considering the type of sport for worry about illness, which is a subscale of hypochondriasis, disease phobia, symptom preoccupation, and intent to continue. Furthermore, interaction effects between the two independent variables, i.e., age and type of sport, were

found for disease phobia, a subscale of hypochondriasis, and thanatophobia. In summary, age and type of sport, which are important factors for the COVID-19 infection and symptoms, were found to affect the sport activity patterns. These results proved that COVID-19 may have caused the participants to have different perceptions depending on their characteristics and change their form of continuous participation. These findings will provide useful data for predicting the perception and behavioral patterns of sports participants if diseases like COVID-19 occur in the future. They also show how to live a healthy life through exercise.

Publication Type

Journal article.

<72>

Accession Number

20203297077

Author

Silva-Jaimes, M. I.

Title

SARS-CoV-2 and other emerging viruses and their relationship to safety in the food chain. [Spanish]

Source

Scientia Agropecuaria; 2020. 11(2):267-277. many ref.

Publisher

Universidad Nacional de Trujillo

Location of Publisher

Trujillo

Country of Publication

Peru

Abstract

Influenza pandemics are related to the viral flow of wild and migratory birds, passing to pigs and poultry (intermediate hosts), which would end up infecting humans. Process management through Good Farming Practices for animal production and Animal Welfare should be important preventive measures

to avoid this contagion. In coronaviruses and Ebola there are ancestral hosts (such as bats) and intermediate hosts (such as *Civettictis civetta* or *Paradoxurus hermaphroditus* for SARS-CoV-1, dromedaries for MERS-CoV, and snakes and *Manis javanica* for SARS-CoV-2). In its natural state the inter-specie jump would take much longer to occur; however, the existence of wet markets, where animals are traded, would have allowed viruses to find a new host in humans. In addition to pneumonia, the invasion of SARS-CoV-2 produces temporary discomfort, such as diarrhea, due to the abundance of the ACE-2 receptor in both lung cells and enterocytes, where its replication would increase the probability of transmission by the fecal-oral route. This risk could be minimized by improving Good Manufacturing Practice (GMP) procedures in the food industry. Future research should clarify the relationship between viruses and their hosts, as well as the effect of climate change and proteins availability for human consumption, on these pandemics.

#### Publication Type

Journal article.

<73>

#### Accession Number

20203297076

#### Author

Quevedo-León, R.; Bastías-Montes, J. M.; Espinoza-Tellez, T.; Ronceros, B.; Balic, I.; Muñoz, O.

#### Title

Inactivation of coronaviruses in food industry: the use of inorganic and organic disinfectants, ozone, and UV radiation.

#### Source

Scientia Agropecuaria; 2020. 11(2):257-266. many ref.

#### Publisher

Universidad Nacional de Trujillo

#### Location of Publisher

Trujillo

#### Country of Publication



Peru

## Abstract

Currently there is a worldwide pandemic due to Covid-19, which has caused a great impact on humanity in social, economic, psychological aspects and unfortunately on health. Due to the risk that food can also be a medium to cause virus diseases, the procedures in the food industry safety programs must be revised; and, to be more specific, to disinfect Covid-19. Some effective disinfectants that have been proved to inactivate the coronavirus are: chlorine dioxide, sodium hypochlorite, quaternary compound, ozone and UV-C (shortwave ultraviolet light). In this review, some treatments used to inactivate a virus, with an emphasis to the coronavirus family, and other influenza viruses, are reported. It has been concluded that the coronavirus could be inactivated using free chlorine solutions at 30 mg/L, sodium hypochlorite 0.25%, or Chlorine Dioxide (99% purity) diluted at 1/2.5 relation. Also, alcohol is an effective disinfectant at concentrations of 62 to 71% of ethanol. With respect to the use of the quaternary compound, it can be used at concentrations of 0.10%. Ozone is another promising disinfectant to inactivate the coronavirus and Covid-19. Doses of ozone between 10 to 20 ppm for 10 to 15 minutes are recommended to inactivate the coronavirus with 3.5 log<sub>10</sub> reductions. However, a warning should be reported to the use of high doses of exposure because it can be a risk to human health. UV-C can inactivate the coronavirus at a value of 67 J/m<sup>2</sup> by 1 to 30 minutes of exposure.

## Publication Type

Journal article.

<74>

## Accession Number

20203297074

## Author

García, L.; Veneros, J.; Tineo, D.

## Title

Severe Acute Respiratory Syndrome (SARS-CoV-2): a national public health emergency and its impact on food security in Peru.

## Source

Scientia Agropecuaria; 2020. 11(2):241-245. 34 ref.

## Publisher

Universidad Nacional de Trujillo

Location of Publisher

Trujillo

Country of Publication

Peru

Abstract

On March 16, 2020, a policy of quarantine and social isolation initiated in Peru imposed by the declaration of National Public Health Emergency for Severe Acute Respiratory Syndrome (SARS-CoV-2), which is affecting everyone. The research aimed to collect information that anticipates the impacts on the quantity and the need to distribute food for food security. From a global point of view, fiscal, monetary, and macro-financial policies corresponding to approximately 7% of the National GDP. These efforts will be insufficient if they are not complemented by adequate planning to supply the needs of Peru with at least 484,402.1 kilos of food per month, concerning agricultural products contained in the index basket and that need to be distributed in all regions of the country, such as rice, potatoes and at least 14 other products. In conclusion, measures in four aspects are urgent: technological, scientific, humanitarian, and planning, in addition to those implemented, to mitigate the impacts on food security, now and post-pandemic, it is suggested that the issue should be treated from a transdisciplinary perspective.

Publication Type

Journal article.

<75>

Accession Number

20203296319

Author

Bonvecchio, A.; Miranda, S. P.; Irizarry, L.; Cuenca, M. H.; Walls, M. V. T.; Bernal, J.; Mata, C.; Bautista, F. L.; Palacios, C.; Aldana, M. F.; Guti&eacute;rrez, M.; Mendivil, L. L.; Reyes, M. L.; Moliterno, P.; Moyano, D.; Murillo, D.; Palomares, L.; P&aacute;ramo, K.; P&eacute;rez, A.; Trak-Fellermeier, M. A.; L&oacute;pez, M. V.

Title

Micronutrient recommendations for vulnerable groups in context of undernutrition, during the COVID-19 pandemic in Latin America. [Spanish]

Source

Archivos Latinoamericanos de Nutricion; 2019. 69(4):259-273. 106 ref.

Publisher

Sociedad Latinoamericana de Nutricion

Location of Publisher

Caracas

Country of Publication

Venezuela

Abstract

The COVID-19 crisis (SARS-CoV-2) might transform into a food catastrophe in Latin America and would increase the number of people suffering from hunger from 135 to 265 million, particularly in Venezuela, Guatemala, Honduras, Haiti and El Salvador, already facing economic and health crises. This manuscript presents the position of a group of Latin American experts in nutrition for establishing the recommendations for consumption and/or supplementation with vitamin A, C, D, zinc, iron, folates and multiple micronutrients, in undernutrition contexts, for vulnerable population of pregnant and lactating women, children under 5 years and the elderly. The recommendations seek to decrease the potential impact that COVID-19 will have on nutritional status during the pandemic. The position arises from the discussion of the experts based on the review of current scientific evidence for these vulnerable groups. It aims to reach stakeholders, public policy makers, health personnel and civil society organizations. Only after breastfeeding and a sufficient diet in terms of quantity and quality, a supplementation with the micronutrients mentioned above can help prevent and treat viral diseases, strengthen the immune system and even reduce complications. Breastfeeding with respiratory hygiene measures, the provision of multiple micronutrients powders for children from 6 months to 5 years of age and the supply of iron and folates or multiple micronutrients tablets for pregnant women are proven and effective strategies that must continue to be implemented during COVID-19 pandemic. For older adults, supplementation with vitamin C, D and zinc might be indicated.

Publication Type

Journal article.

<76>

Accession Number

20203296318

Author

Palacios, C.; Bernal, J.; Bonvecchio, A.; Guti erez, M.; Herrera Cuenca, M.; Irizarry, L.; Mendivil, L. L.; L pez Bautista, F.; L pez, M.; Mata, C.; Moliterno, P.; Moyano, D.; Murillo, D.; Pacheco Miranda, S.; Palomares, L.; P ramo, K.; P rez, A.; Tijerina Walls, M. V.; Trak-Fellermeier, M. A.

Title

Nutritional recommendations for healthcare and essential personnel exposed to COVID-19 in Latin America. [Spanish]

Source

Archivos Latinoamericanos de Nutricion; 2019. 69(4):242-258. 135 ref.

Publisher

Sociedad Latinoamericana de Nutricion

Location of Publisher

Caracas

Country of Publication

Venezuela

Abstract

These recommendations are based on current scientific evidence obtained through meta-analysis and systematic reviews on nutrition and the prevention of respiratory infections related to SARS-CoV, MERS-CoV or influenza, similar in structure to SARS-CoV-2. They are aimed at primary health care personnel and to those who provide essential services to the community and are, consequently, at high risk of COVID-19 infection. These individuals wear personal protective equipment, work long shifts, sometimes under extreme conditions, which can lead to insufficient rest, high stress levels, depression, poor nutrition and dehydration. Together, these factors have a negative impact on the immune system and could result in an increased risk of infection. An adequate intake of micronutrients and other bioactive compounds is essential for optimal immune performance. There is moderate evidence supporting supplementation, individually, with vitamin C (2 000 mg), vitamin D (1 000-2 000 IU) and zinc ( $\leq 40$  mg) for the prevention of respiratory infections in adults. Insufficient evidence was found to support supplementation with vitamin A, niacin, folic acid, B12, omega 3, probiotics and polyphenols; however, the consumption of foods rich in these nutrients is recommended to support immune function. It is recommended that workers follow the recommendation of consuming 400 g/day of fruits and vegetables, remain hydrated and limit caffeine. There is no scientific evidence supporting the consumption of alkaline foods to prevent infections. The aforementioned recommendations are particularly relevant during the pandemic.

Publication Type

<77>

Accession Number

20203292530

Author

Temsah, M. H.; Al-Sohime, F.; Alamro, N.; Al-Eyadhy, A.; Al-Hasan, K.; Amr Jamal; Al-Maglouth, I.; Fadi Aljamaan; Amri, M. A.; Barry, M.; Al-Subaie, S.; Somily, A. M.

Title

The psychological impact of COVID-19 pandemic on health care workers in a MERS-CoV endemic country. (First thematic issue on novel coronavirus (COVID-19).)

Source

Journal of Infection and Public Health; 2020. 13(6):877-882. 43 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: The global pandemic of coronavirus disease of 2019 (COVID-19) has led to unprecedented psychological stress on health workers (HCWs). We aimed to assess the psychological impact of COVID-19 on HCWs in comparison to the stress brought on by the Middle East respiratory syndrome coronavirus (MERS-CoV) epidemic in Saudi Arabia. Method: Between February 5th and 16th, 2020, 811 health-care workers (HCWs) of a tertiary care teaching hospital were invited to fill a questionnaire regarding concerns and worries about the novel coronavirus pandemic, along with Generalized Anxiety Disorder (GAD-7) Anxiety Severity screening tool. Results: Out of 582 HCWs who completed the survey questionnaire (response rate of 71.8%), about 40% were exposed previously to MERS-CoV infected or suspected patients during a previous hospital outbreak. While there were no COVID-19 cases reported yet in Saudi Arabia at the time of data collection, still, the anxiety level from

COVID-19 was significantly higher than that from MERS-CoV or seasonal influenza: 41.1% were more worried about COVID-19, 41.4% were similarly worried about both MERS-CoV and COVID-19, and 17.5% were more stressed by the previous MERS-CoV hospital outbreak. The most frequent concern was transmitting the infection to family and friends (2.71/5) than to themselves only (2.57/5). Conclusion: Pandemic and epidemic infectious diseases such as COVID-19 or MERS-CoV impose a significant level of anxiety and stress on healthcare workers who are caring of infected patients, with their main concern being the risk of transmitting the infection to their families or to acquire it themselves. Therefore, optimizing the compliance of healthcare workers with the proper infection prevention and control measures is paramount during the infectious disease outbreak, to ensure their safety, to decrease the likelihood of getting infected or transmitting the infection to others, and consequently to alleviate their psychological stress and anxiety.

#### Publication Type

Journal article.

<78>

#### Accession Number

20203292526

#### Author

Quadri, M. F. A.; Jafer, M. A.; Alqahtani, A. S.; Mutahar, S. A. B. A.; Odabi, N. I.; Daghri, A. A.; Tadakamadla, S. K.

#### Title

Novel corona virus disease (COVID-19) awareness among the dental interns, dental auxiliaries and dental specialists in Saudi Arabia: a nationwide study. (First thematic issue on novel coronavirus (COVID-19).)

#### Source

Journal of Infection and Public Health; 2020. 13(6):856-864. 26 ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

Background: Dental health care workers (DHCW's) are invariably at a higher risk of contracting COVID-19. The objectives were; to investigate the current knowledge on COVID-19 among the DHCW's; and to conduct quasi-experiment among the DHCW's who were unaware of the disseminated COVID-19 information. Methods: A nationwide cross-sectional study targeting dental interns, auxiliaries, and specialists with a two-staged cluster sampling technique was performed. A 17-item questionnaire was subjected to reliability and validity tests before being administered. The participants for quasi-experiment were separated from the original sample after their initial response. Chi-square test assessed responses to knowledge statements between the participants. Difference in mean knowledge scores between the categories of DHCW's and sources of COVID-19 information was assessed using ANOVA. Data from the quasi experiment (pre vs post knowledge intervention) was subjected to paired t-test. Percentage of DHCWs providing correct or wrong responses to each knowledge statement at baseline and after 7 days were compared using McNemar test. Results: The overall sample consisted of 706 (N) participants, and the DHCW's with no prior knowledge on COVID-19 (N = 206) were part of the quasi experiment. Findings from cross-sectional study revealed that knowledge was significantly ( $p < 0.05$ ) related to the qualification level (interns vs auxiliaries vs specialists). However, the difference in the source of information (WHO/CDC vs Journal articles vs MoH) did not demonstrate any effect. Number of participants with correct responses to knowledge questions had significantly ( $p < 0.05$ ) increased after intervention. Also, the overall mean knowledge score ( $10.74 \pm 2.32$  vs  $12.47 \pm 1.68$ ;  $p < 0.001$ ) had increased significantly after the intervention. Conclusion: In conclusion, the basic knowledge on COVID-19 among the DHCW's in Saudi Arabia is acceptable. Timely dissemination of information by the Ministry of Health, Saudi Arabia had a positive impact on the COVID-19 knowledge score of the DHCW's.

## Publication Type

Journal article.

<79>

## Accession Number

20203299940

## Author

Syed Hasan; Attique Rehman; Zhang WenDong

Title

Disparate impacts of COVID-19 lockdowns in Pakistan affecting girls and rural residents.

Source

Working Paper - Department of Economics, Iowa State University; 2020. (20010):20 pp. 13 ref.

Publisher

Iowa State University, Department of Economics

Location of Publisher

Ames

Country of Publication

USA

Abstract

In this article, we examine the feasibility of working and studying from home in Pakistan. We take advantage of the 2018-19 Pakistan Social and Living Standards Measurement (PSLM) Survey, released only weeks ago. PSLM is a nationally representative household survey with extensive information on employment outcomes, children's educational attainment, internet and TV access information, and handwashing place. Following Dingel and Neiman (2020)'s approach, we define the feasibility of jobs that can be done from home for both urban and rural districts. We also investigate the possibilities for students to study from home via TV or internet. We find that only 10% of jobs in Pakistan can be done from home, and rates are even lower for rural residents, as so many of Pakistan's workers are in low-skill, low-paying service industries and cannot work from home. Our results also highlight the homeschooling challenges Pakistan's students face, given low rates of access to TV and the internet. Pre-existing inequalities in which many rural female students already lack educational opportunities will further compound these difficulties. Our results highlight the need for state's financial support for vulnerable workers and expanded internet access for both teaching and effective job performance.

Publication Type

Bulletin.

<80>

Accession Number

20203296860



Author

Tizard, I. R.

Title

Vaccination against coronaviruses in domestic animals.

Source

Vaccine; 2020. 38(33):5123-5130. many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The current pandemic of COVID-19 has set off an urgent search for an effective vaccine. This search may well benefit from the experiences of the animal health profession in the development and use of coronavirus vaccines in domestic animal species. These animal vaccines will in no way protect humans against COVID-19 but knowledge of the difficulties encountered in vaccinating animals may help avoid or minimize similar problems arising in humans. Diverse coronaviruses can infect the domestic species from dogs and cats, to cattle and pigs to poultry. Many of these infections are controlled by routine vaccination. Thus, canine coronavirus vaccines are protective in puppies but the disease itself is mild and self-limiting. Feline coronavirus infections may be mild or may result in a lethal immune-mediated disease - feline infectious peritonitis. As a result, vaccination of domestic cats must seek to generate-protective immunity without causing immune-mediated disease. Vaccines against bovine coronavirus are widely employed in cattle where they protect against enteric and respiratory disease in young calves. Two major livestock species suffer from economically significant and severe coronavirus diseases. Thus, pigs may be infected with six different coronaviruses, one of which, porcine epidemic diarrhea, has proven difficult to control despite the development of several innovative vaccines. Porcine epidemic diarrhea virus undergoes frequent genetic changes. Likewise, infectious bronchitis coronavirus causes an economically devastating disease of chickens. It too undergoes frequent genetic shifts and as a result, can only be controlled by extensive and repeated vaccination. Other issues that have been encountered in developing these animal vaccines include a relatively short duration of protective immunity, and a lack of effectiveness of inactivated vaccines. On the other hand, they have been relatively cheap to make and lend themselves to mass vaccination procedures.

Publication Type

Journal article.

<81>

Accession Number

20203294918

Author

Buonsenso, D.; Onesimo, R.; Valentini, P.; Chiaretti, A.; Gatto, A.; Attin&grave;, G.; Conti, G.; Vento, G.; Cambieri, A.; Mercuri, E.; Zampino, G.

Title

Children's healthcare during corona virus disease 19 pandemic the Italian experience.

Source

Pediatric Infectious Disease Journal; 2020. 39(7):e137-e140. 9 ref.

Publisher

Lippincott Williams & Wilkins, Inc.

Location of Publisher

Hagerstown

Country of Publication

USA

Abstract

The unexpected outbreak of Corona Virus Disease 19 had several consequences worldwide and on the Italian Health System. We report our experience in the reorganization of our Pediatric Department to prevent the risk of infection for both children and staff. We strongly believe that the need to face an unpredictable emergency situation should not affect the quality of the assistance to the non-Corona Virus Disease patients. Since its first description in China,<sup>1,2</sup> the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has spread in almost every country in the world. The first cases of Corona Virus Disease 19 (COVID-19) were identified in Italy in the third week of February, followed by a massive increase, reaching over 15,000 new cases and over 1000 deaths within 2 weeks. The unexpected outbreak had several consequences on the Italian National Health System. The massive access of COVID-19 cases to the emergency departments resulted in a saturation of the intensive care units and of the available inpatients' wards. As a consequence, many hospitals, especially in Northern Italy, had to completely restructure their services to accommodate the increased request.<sup>3</sup> National and regional emergency plans have been implemented according to the World Health Organization guidelines and to the local needs, to provide dedicated services for suspected COVID-19 cases and

guarantee appropriate health care for all the other patients. Most of the planning has been focused on intensive care units, with special attention to the care of elderly, and more generally of high-risk patients, such as those with disabilities, congenital or acquired immune disorders, oncologic disorders and transplant recipients. Less attention has been paid to the pediatric population. This is not surprising as although children are not spared by the SARS-CoV-2, they only account for approximately 1% of the identified cases of COVID-19, and very few deaths under the age of 10 years have been reported. These numbers are probably not reflecting the real pediatric prevalence of infection as children have often been reported to have milder and nonspecific clinical signs, sometimes even in the absence of fever.<sup>4-8</sup> While there is less concern about the severity of the infection in childhood, it must not be underestimated that children may still contribute to the spreading of the infection. A proper reorganization is therefore necessary in the pediatric services, to identify children who may have milder and nonspecific signs of infection and, at the same time, protecting the other pediatric patients at the hospital for other reasons. We report our experience in the reorganization of the Pediatric Department in our University Hospital in Rome. As the COVID-19 outbreak in central Italy occurred approximately 2 weeks later than in Northern Italy, we had the possibility to plan in advance some preventive measures. The Fondazione Policlinico Universitario A. Gemelli IRCCS has been selected as one of the "COVID-19 hospitals" in our region. As the hospital covers the care of both adults and children, it has been important to develop a plan also for children, taking advantage of the experience rapidly collected in adult patients. Traditionally, our Pediatric Department is divided in different, but interconnected, main macro-areas of activity (Fig. 1), distributed on different floors. Each group of residents is assigned to a specific area, but there is a significant interaction among the different groups because of the multidisciplinary approach needed in many of the children followed in the individual services.

#### Publication Type

Journal article.

<82>

#### Accession Number

20203288621

#### Author

Daumas, R. P.; Azevedo e Silva, G.; Tasca, R.; Costa Leite, I. da; Brasil, P.; Greco, D. B.; Grabois, V.; Sousa Campos, G. W. de

#### Title

The role of primary care in the Brazilian healthcare system: limits and possibilities for fighting COVID-19. (Thematic Section: Covid-19.)

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Source

Cadernos de Saude Publica; 2020. 36(6)25 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The objective of the article was to discuss the roles of the primary health care (PHC) system in the Brazilian health care system in the ongoing COVID-19 pandemic. Through community work, PHC can act to reduce the infection's spread, monitor mild cases in home isolation, support communities during social distancing, identify and deal with situations of individual or collective vulnerability, and especially guarantee access to healthcare and the necessary referrals during the epidemic's most critical phases. PHC can thus play a central role in mitigating the pandemic's effects, maintaining and extending its attributes such as access to the first contact access, long-term person-focused care, comprehensive care, and coordination of care, and especially cultural competence and family and community orientation. In individual clinical care, using telehealth modalities, PHC professionals can divide suspected cases on self-isolation and identification of warning signs; identify patients who cannot be cared for at home; monitor the clinical evolution of these suspected cases; conduct teleconsultations for more complex cases; and request referral to a hospital when signs of clinical deterioration are identified. All these measures help reduce demand and the risks of infection in emergency units and allow concentrating the latter's resources on treatment of more serious cases.

Publication Type

Journal article.

<83>

Accession Number

20203288619

Author

Mascarenhas, M. D. M.; Araujo Batista, F. M. de; Rodrigues, M. T. P.; Alencar Alves Barbosa, O. de; Barros, V. C.

Title

Simultaneous occurrence of COVID-19 and dengue: what do the data show? (Thematic Section: Covid-19.)

Source

Cadernos de Saude Publica; 2020. 36(6)19 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The objective of the article was to discuss the concurrent infection of COVID-19 and dengue in Brazil. Besides the COVID-19 epidemic, Brazil has faced seasonal dengue epidemics from March to June since 1986. The increase in rainfall and gaps in *Aedes aegypti* mosquito vector control have contributed to the rise in dengue during this period. The situation is similar with respiratory diseases like influenza, which display seasonal outbreaks, especially in the cooler autumn and winter months. With the spatial and temporal coincidence of these diseases, the Brazilian Unified National Health System (SUS), which already presented deficiencies in clinical care for dengue and other diseases, was forced to quickly expand its physical infrastructure, purchase equipment and supplies, build field hospitals, train healthcare professionals, and increase its testing capacity. Still, the impact of COVID-19 on the public healthcare system appears most acutely in the high demand for hospitalization, exhausting the supply of intensive care beds and mechanical ventilators in some regions of Brazil.

Publication Type

Journal article.

<84>

Accession Number

20203300050

Author

Cho SeungJin; Lee JunYeong; Winters, J. V.

Title

COVID-19 employment status impacts on food sector workers.

Source

Working Paper - Department of Economics, Iowa State University; 2020. (20013):37 pp. 50 ref.

Publisher

Iowa State University, Department of Economics

Location of Publisher

Ames

Country of Publication

USA

Abstract

Food production and distribution is essential for human well-being, but the food sector has experienced a number of difficulties maintaining worker health and productivity during the COVID-19 pandemic. We examine employment status changes of persons recently employed in the U.S. food sector with a focus on food manufacturing and grocery stores. We find that the pandemic significantly reduced the probability of continued active employment for previous workers in both food manufacturing and grocery stores. Individual-level analysis confirms that the COVID-19 infection rate in an individual's local labor market is a strong and significant factor. The employment changes are not just due to unemployment during facility closures. Previous workers increasingly exit the labor force as the severity of the COVID-19 infection rate in their local area worsens. The considerable risk of infection drives many previous food sector workers to stop working altogether. Maintaining worker health and safety is essential for a stable food supply.

Publication Type

Bulletin.

<85>

Accession Number

20203297351

Author

Al-Tawfiq, J. A.; Memish, Z. A.

Title

Middle East respiratory syndrome coronavirus and severe acute respiratory syndrome coronavirus.  
(Community-acquired pneumonia: a global perspective.)

Source

Seminars in Respiratory and Critical Care Medicine; 2020. 41(4):568-578. 161 ref.

Publisher

Thieme Medical Publishers, Inc.

Location of Publisher

New York

Country of Publication

USA

Abstract

Emerging infectious diseases continue to be of a significant importance worldwide with the potential to cause major outbreaks and global pandemics. In 2002, the world had witnessed the appearance of the severe acute respiratory syndrome coronavirus in China which disappeared abruptly within 6 months. About a decade later, a new and emerging novel coronavirus named the Middle East respiratory syndrome coronavirus (MERS-CoV) was described in a patient from Saudi Arabia. These two coronaviruses shared multiple similarities in the epidemiology, clinical presentations, and posed challenges in its prevention and management. Seven years since its discovery, MERS-CoV continues to be a lethal zoonotic pathogen capable of causing severe pneumonia with high case fatality rates and the ability to cause large health care-associated outbreaks.

Publication Type

Journal article.

<86>

Accession Number

20203297839

Author

Liang WenHua; Guan WeiJie; Li CaiChen; Li YiMin; Liang HengRui; Zhao Yi; Liu XiaoQing; Sang Ling; Chen RuChong; Tang ChunLi; Wang Tao; Wang Wei; He QiHua; Chen ZiSheng; Wong SookSan; Zanin, M.; Liu, J.; Xu Xin; Huang, J.; Li JianFu; Ou LiMin; Cheng Bo; Xiong Shan; Xie ZhanHong; Ni ZhengYi; et al.

Title

Clinical characteristics and outcomes of hospitalised patients with COVID-19 treated in Hubei (epicentre) and outside Hubei (non-epicentre): a nationwide analysis of China.

Source

European Respiratory Journal; 2020. 55(6)14 ref.

Publisher

European Respiratory Society

Location of Publisher

Sheffield

Country of Publication

UK

Abstract

Background: During the outbreak of coronavirus disease 2019 (COVID-19), consistent and considerable differences in disease severity and mortality rate of patients treated in Hubei province compared to those in other parts of China have been observed. We sought to compare the clinical characteristics and outcomes of patients being treated inside and outside Hubei province, and explore the factors underlying these differences. Methods: Collaborating with the National Health Commission, we established a retrospective cohort to study hospitalised COVID-19 cases in China. Clinical characteristics, the rate of severe events and deaths, and the time to critical illness (invasive ventilation or intensive care unit admission or death) were compared between patients within and outside Hubei. The impact of Wuhan-related exposure (a presumed key factor that drove the severe situation in Hubei, as Wuhan is the epicentre as well the administrative centre of Hubei province) and the duration between symptom onset and admission on prognosis were also determined. Results: At the data cut-off (31 January 2020), 1590 cases from 575 hospitals in 31 provincial administrative regions were collected (core cohort). The overall rate of severe cases and mortality was 16.0% and 3.2%, respectively. Patients in Hubei (predominantly with Wuhan-related exposure, 597 (92.3%) out of 647) were older (mean age 49.7 versus 44.9 years), had more cases with comorbidity (32.9% versus 19.7%), higher symptomatic burden, abnormal radiologic manifestations and, especially, a longer waiting time between symptom onset and admission (5.7 versus 4.5 days) compared with patients outside Hubei. Patients in Hubei (severe event rate 23.0% versus 11.1%, death rate 7.3% versus 0.3%, HR (95% CI) for critical illness 1.59



(1.05- 2.41)) have a poorer prognosis compared with patients outside Hubei after adjusting for age and comorbidity. However, among patients outside Hubei, the duration from symptom onset to hospitalisation (mean 4.4 versus 4.7 days) and prognosis (HR (95%) 0.84 (0.40-1.80)) were similar between patients with or without Wuhan-related exposure. In the overall population, the waiting time, but neither treated in Hubei nor Wuhan-related exposure, remained an independent prognostic factor (HR (95%) 1.05 (1.01-1.08)). Conclusion: There were more severe cases and poorer outcomes for COVID-19 patients treated in Hubei, which might be attributed to the prolonged duration of symptom onset to hospitalisation in the epicentre. Future studies to determine the reason for delaying hospitalisation are warranted.

Publication Type

Journal article.

<87>

Accession Number

20203297802

Author

Mousa, Y. J.; Mahmood, M. B.; Isihag, F. A.; Mohammed, A. A.

Title

Are promising mechanisms of hydroxychloroquine abolish COVID-19 activity? A review study.

Source

Iraqi Journal of Veterinary Sciences; 2020. 34(2):345-349. 28 ref.

Publisher

College of Veterinary Medicine, University of Mosul

Location of Publisher

Mosul

Country of Publication

Iraq

Abstract

To explore the benefits of Hydroxychloroquine (HCQ), (which is an antimalarial agent that has shown effective pharmacological properties in different malarial conditions and immunological disorders, particularly in chloroquine-sensitive malaria), in the treatment and prevention of Corona Virus Disease-2019 (COVID-19) pandemic because HCQ was recently advocated to minimize the pathogenicity of COVID-19. The aim of this review is to shed the light on a possible mechanism by which HCQ can defeat the COVID-19, a disease characterized by the WHO as a pandemic. Literatures from Web of Science, Scopus, PubMed, Science Direct and Google Scholar were cast-off to search the literature data. The keywords used are antimalarial agent, COVID-19, Hydroxychloroquine, SARS-CoV-2 and Zinc sulfate. The review summarizes the benefits of using HCQ against COVID-19 through exploiting the ability of this antimalarial agent in ameliorating the body immunity, inhibiting and/or delaying the viral glycosylation by increasing the pH inside the host cell and also via suppressing the viral transcription and replication through the formation of a complex structure after binding with zinc. We concluded that these interfering properties of HCQ support human immunity to fight against the progression of COVID-19. We hypothesize that the therapeutic efficiency of HCQ against the COVID-19 can be enhanced by the concurrent administration of zinc sulfate.

Publication Type

Journal article.

<88>

Accession Number

20203307240

Author

Kljeć; anin Franić;

Title

The use of the words pasji or pseći (dog) in veterinary medicine. [Croatian]

Source

Hrvatski Veterinarski Vjesnik; 2020. 28(2):52-55. 16 ref.

Publisher

Hrvatska Veterinarska Komora

Location of Publisher

Zagreb

## Country of Publication

Croatia

## Abstract

The COVID-19 pandemic and the consequent risk of infection in Croatia have raised additional concerns in pet owners about whether their dogs and cats could be a possible source of disease for humans. And while the scientific facts as well as the responses given by Croatian virologists have eased these owners' fears, we could not fail to notice the occurrence of different attributes and forms of adjectives related to dogs in various texts on veterinary portals and websites. For example, during the one interview a question was asked about dog coronavirus (termed as pasji koronavirus), to which the veterinarian replied using a different term - pseći koronavirus. Therefore, one could wonder whether diseases typical for dogs should be addressed as pasje or psece, or whether dog feed should be called pasja or pseca. In this article an overview of the occurrence of these two adjective is given in general language and veterinary literature, as well as recommendations about which should be used in professional and scientific articles.

## Publication Type

Journal article.

<89>

## Accession Number

20203303442

## Author

Carswell, G.; Neve, G. de; Yuvaraj, S.

## Title

Fifty days of lockdown in India: a view from two villages in Tamil Nadu.

## Source

Economic and Political Weekly; 2020. 55(25)8 ref.

## Publisher

Sameeksha Trust

## Location of Publisher

Mumbai

Country of Publication

India

Abstract

Villagers in Tiruppur district in Tamil Nadu, India's largest knitwear manufacturing and export hub, face different levels of hardship due to the lockdown in the wake of COVID-19. This article details the coping strategies of garment, power loom, and agricultural workers in two villages-Allapuram and Mannapalayam.

Publication Type

Journal article.

<90>

Accession Number

20203303428

Author

Valdivia-Granda, W. A.; Richt, J. A.

Title

What we need to consider during and after the SARS-CoV-2 pandemic.

Source

Vector Borne and Zoonotic Diseases; 2020. 20(7):477-483.

Publisher

Mary Ann Liebert, Inc.

Location of Publisher

New Rochelle

Country of Publication

USA

Abstract

Even though extreme containment and mitigation strategies were implemented by numerous governments around the world to slow down the spread of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), the number of critically ill patients and fatalities keeps rising. This crisis has highlighted the socioeconomic disparities of health care systems within and among countries. As new CoVID policies and responses are implemented to lessen the impact of the virus, it is imperative (1) to consider additional mitigation strategies critical for the development of effective countermeasures, (2) to promote long-term policies and strict regulations of the trade of wildlife and live animal markets, and (3) to advocate for necessary funding and investments in global health, specifically for the prevention of and response to natural and manmade pandemics. This document considers some of these challenges.

Publication Type

Journal article.

<91>

Accession Number

20203304656

Author

Jeon YongWoo; Park EunSuk; Jung SunJae; Kim Yeon; Choi JunYong; Kim HyeonChang

Title

Protection of healthcare workers against COVID-19 at a large teaching hospital in Seoul, Korea.

Source

Yonsei Medical Journal; 2020. 61(7):631-634. 9 ref.

Publisher

Yonsei University College of Medicine

Location of Publisher

Seoul

Country of Publication

Korea Republic

Abstract

Thirteen patients with coronavirus disease 2019 (COVID-19) visited a university hospital in Seoul before recognizing their disease infections, causing contact with 184 hospital workers. We classified the patients into four risk levels and provided corresponding management measures. At 31 days after the last event, all screening laboratory results were negative, and no symptoms/signs were reported.

Publication Type

Journal article.

<92>

Accession Number

20203302706

Author

Wang KaiJin; Zhu XueTong; Xu JianCheng

Title

Laboratory biosafety considerations of SARS-CoV-2 at biosafety level 2.

Source

Health Security; 2020. 18(3):232-236. 11 ref.

Publisher

Mary Ann Liebert, Inc.

Location of Publisher

New Rochelle

Country of Publication

USA

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the pathogen that causes coronavirus disease 2019 (COVID-19), which was first detected in Wuhan, China. Recent studies have updated the epidemiologic and clinical characteristics of COVID-19 continuously. In China, diagnostic tests and laboratory tests of specimens from persons under investigation are usually performed in a biosafety level 2 environment. Laboratory staff may be at greater risk of exposure due to a higher concentration and invasiveness of emerging pathogens. Current infection prevention strategies are

based on lessons learned from severe acute respiratory syndrome, expert judgments, and related regulations. This article summarizes biosafety prevention and control measures performed in severe acute respiratory syndrome coronavirus 2 testing activities and provides practical suggestions for laboratory staff to avoid laboratory-acquired infections in dealing with public health emergencies.

Publication Type

Journal article.

<93>

Accession Number

20203299004

Author

Ye ChunMing; Zhao ShengWen; Yang XiuHong; Liu HaiYun

Title

Analysis and prediction of teenage athletes' ability to cope with the outbreak of COVID-19 based on machine learning. [Chinese]

Source

Journal of Physical Education; 2020. 27(3):68-73.

Publisher

Editorial Department of Journal of Physical Education

Location of Publisher

Guangzhou

Country of Publication

China

Publication Type

Journal article.

<94>

Accession Number

20203292118

Author

Ma SiYuan; Yuan ZhiQiang; Peng YiZhi; Chen Jing; Li HaiSheng; Luo QiZhi; Song HuaPei; Xiang Fei; Tan JiangLin; Zhou JunYi; Ning Li; Hu GaoZhong; Luo GaoXing

Title

Experience and suggestion of medical practices for burns during the outbreak of COVID-19.

Source

Burns; 2020. 46(4):749-755. 16 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

COVID-19 is spreading almost all over the world at present, which is caused by the 2019 novel coronavirus (2019-nCoV). It was an epidemic firstly in Hubei province of China. The Chinese government has formally set COVID-19 in the statutory notification and control system for infectious diseases according to the Law of the People's Republic of China on the Prevention and Treatment of Infectious Diseases. China currently is still struggling to respond to COVID-19 though intensive actions with progress made. The Burn Department of our hospital is one of sections with the highest infectious risk of COVID-19. Based on our own experience and the guidelines on the diagnosis and treatment of COVID-19 (7th Version) with other regulations and literature, we describe our experience with suggestions for medical practices for burn units during the COVID-19 outbreak. We hope these experiences and suggestions benefit our international colleagues during the pandemic of the COVID-19.

Publication Type

Journal article.



<95>

Accession Number

20203297657

Author

Devaux, C. A.; Rolain, J. M.; Colson, P.; Raoult, D.

Title

New insights on the antiviral effects of chloroquine against coronavirus: what to expect for COVID-19?

Source

International Journal of Antimicrobial Agents; 2020. 55(5)many ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Recently, a novel coronavirus (2019-nCoV), officially known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), emerged in China. Despite drastic containment measures, the spread of this virus is ongoing. SARS-CoV-2 is the aetiological agent of coronavirus disease 2019 (COVID-19) characterised by pulmonary infection in humans. The efforts of international health authorities have since focused on rapid diagnosis and isolation of patients as well as the search for therapies able to counter the most severe effects of the disease. In the absence of a known efficient therapy and because of the situation of a public-health emergency, it made sense to investigate the possible effect of chloroquine/hydroxychloroquine against SARS-CoV-2 since this molecule was previously described as a potent inhibitor of most coronaviruses, including SARS-CoV-1. Preliminary trials of chloroquine repurposing in the treatment of COVID-19 in China have been encouraging, leading to several new trials. Here we discuss the possible mechanisms of chloroquine interference with the SARS-CoV-2 replication cycle.

Publication Type

Journal article.

<96>

Accession Number

20203297651

Author

Fantini, J.; Scala, C. di; Chahinian, H.; Yahy, N.

Title

Structural and molecular modelling studies reveal a new mechanism of action of chloroquine and hydroxychloroquine against SARS-CoV-2 infection.

Source

International Journal of Antimicrobial Agents; 2020. 55(5)30 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The recent emergence of the novel pathogenic SARS-coronavirus 2 (SARS-CoV-2) is responsible for a worldwide pandemic. Given the global health emergency, drug repositioning is the most reliable option to design an efficient therapy for infected patients without delay. The first step of the viral replication cycle [i.e. attachment to the surface of respiratory cells, mediated by the spike (S) viral protein] offers several potential therapeutic targets. The S protein uses the angiotension-converting enzyme-2 (ACE-2) receptor for entry, but also sialic acids linked to host cell surface gangliosides. Using a combination of structural and molecular modelling approaches, this study showed that chloroquine (CLQ), one of the drugs currently under investigation for SARS-CoV-2 treatment, binds sialic acids and gangliosides with high affinity. A new type of ganglioside-binding domain at the tip of the N-terminal domain of the SARS-CoV-2 S protein was identified. This domain (111-158), which is fully conserved among clinical isolates worldwide, may improve attachment of the virus to lipid rafts and facilitate contact with the ACE-2 receptor. This study showed that, in the presence of CLQ [or its more active derivative,

hydroxychloroquine (CLQ-OH)], the viral S protein is no longer able to bind gangliosides. The identification of this new mechanism of action of CLQ and CLQ-OH supports the use of these repositioned drugs to cure patients infected with SARS-CoV-2. The in-silico approaches used in this study might also be used to assess the efficiency of a broad range of repositioned and/or innovative drug candidates before clinical evaluation.

Publication Type

Journal article.

<97>

Accession Number

20203298842

Author

Bisciotti, G. N.; Eirale, C.; Corsini, A.; Baudot, C.; Saillant, G.; Chalabi, H.

Title

Return to football training and competition after lockdown caused by the COVID-19 pandemic: medical recommendations.

Source

Biology of Sport; 2020. 37(3):313-319. 85 ref.

Publisher

Institute of Sport

Location of Publisher

Warsaw

Country of Publication

Poland

Abstract

The lockdown caused by the COVID-19 pandemic represents a great unknown regarding the physiological changes induced in elite football players. Although it will differ from country to country, the return to sport for professional football players will follow a forced lockdown never experienced and longer than the normal annual season break. Moreover, in addition to an obvious decrease in

performance, the lockdown will possibly lead to an increase of the injury risk. In fact, preseason is always a period with a specific football injury epidemiology, with an increase in the incidence and prevalence of overuse injuries. Therefore, it seems appropriate to recommend that specific training and injury prevention programmes be developed, with careful load monitoring. Training sessions should include specific aerobic, resistance, speed and flexibility training programmes. The aerobic, resistance and speed training should respect some specific phases based on the progressiveness of the training load and the consequent physiological adaptation response. These different phases, based on the current evidence found in the literature, are described in their practical details. Moreover, injury prevention exercises should be incorporated, especially focusing on overuse injuries such as tendon and muscle lesions. The aim of this paper is to provide practical recommendations for the preparation of training sessions for professional footballers returning to sport after the lockdown.

#### Publication Type

Journal article.

<98>

#### Accession Number

20203298839

#### Author

Yousfi, N.; Bragazzi, N. L.; Briki, W.; Zmijewski, P.; Chamari, K.

#### Title

The COVID-19 pandemic: how to maintain a healthy immune system during the lockdown - a multidisciplinary approach with special focus on athletes.

#### Source

Biology of Sport; 2020. 37(3):211-216. 48 ref.

#### Publisher

Institute of Sport

#### Location of Publisher

Warsaw

#### Country of Publication

Poland

## Abstract

On January 31, 2020, the World Health Organization (WHO) declared the outbreak of a novel coronavirus responsible for an infection termed COVID-19 as a global public health emergency. To slow the spread of the coronavirus, countries around the world have been implementing various measures, including school and institutional closures, lockdown and targeted quarantine for suspected infected individuals. More than a third of the world's population have been home confined less than 4 months after the start of the outbreak. The present article aims to advise healthy individuals and athletes who are in lockdown regarding their lifestyle in order to keep healthy, safe and fit. The advice contained in the present article could apply to anyone aiming at remaining in good physical and mental health while forced to undergo lockdown, quarantine, or limited movement (movement control order). Boosting the immune system is crucial during such periods for confined people and especially for confined athletes. Specific recommendations must be followed concerning boosting the immune system through physiological and psychological management. This article analyses the available scientific evidence in order to recommend a practical approach, focusing on nutrition, intermittent fasting or caloric restriction, vitamin D insufficiency, sleep pattern, exercise, and psychodynamic aspects as factors impacting the immune system and human health in general.

## Publication Type

Journal article.

<99>

## Accession Number

20203291909

## Author

Kammar-García, A.; Vidal-Mayo, J. de J.; Vera-Zertuche, J. M.; Lazcano-Hernández, M.; Vera-López, O.; Segura-Badilla, O.; Aguilar-Alonso, P.; Navarro-Cruz, A. R.

## Title

Impact of comorbidities in Mexican SARS-COV-2-positive patients: a retrospective analysis in a national cohort.

## Source

Revista de Investigacion Clinica - Clinical and Translational Investigation; 2020. 72(3):151-158. 30 ref.

## Publisher

Permanyer Mexico

Location of Publisher

Mexico city

Country of Publication

Mexico

Abstract

Background: The coronavirus disease 2019 outbreak is a significant challenge for health-care systems around the world. Background: The objective of the study was to assess the impact of comorbidities on the case fatality rate (CFR) and the development of adverse events in patients positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the Mexican population. Materials and methods: We analyzed the data from 13,842 laboratory-confirmed SARS-CoV-2 patients in Mexico between January 1, 2020, and April 25, 2020. We investigated the risk of death and the development of adverse events (hospitalization, pneumonia, orotracheal intubation, and intensive care unit [ICU] admission), comparing the number of comorbidities of each patient. Results: The patient mean age was 46.6 +/- 15.6 years, 42.3% (n = 5853) of the cases were women, 38.8% of patients were hospitalized, 4.4% were intubated, 29.6% developed pneumonia, and 4.4% had critical illness. The CFR was 9.4%. The risk of hospitalization (odds ratio [OR] = 3.1, 95% confidence interval [CI]: 2.7-3.7), pneumonia (OR = 3.02, 95% CI: 2.6-3.5), ICU admission (OR = 2, 95% CI: 1.5-2.7), and CFR (hazard ratio = 3.5, 95% CI: 2.9-4.2) was higher in patients with three or more comorbidities than in patients with 1, 2, or with no comorbidities. Conclusions: The number of comorbidities may be a determining factor in the clinical course and its outcomes in SARS-CoV-2-positive patients.

Publication Type

Journal article.

<100>

Accession Number

20203305121

Author

McNamara, T.; Richt, J. A.; Larry Glickman

Title

A critical needs assessment for research in companion animals and livestock following the pandemic of COVID-19 in humans.

Source

Vector Borne and Zoonotic Diseases; 2020. 20(6):393-405. many ref.

Publisher

Mary Ann Liebert, Inc.

Location of Publisher

New Rochelle

Country of Publication

USA

Abstract

Problem: The emergence of novel coronavirus (SARS-CoV-2) in Wuhan, China, in November 2019 and a growing body of information compel inquiry regarding the transmissibility of infection between humans and certain animal species. Although there are a number of issues to be considered, the following points are most urgent: The potential for domesticated (companion) animals to serve as a reservoir of infection contributing to continued human-to-human disease, infectivity, and community spread. The ramifications to food security, economy, and trade issues should coronavirus establish itself within livestock and poultry. The disruption to national security if SARS-CoV-2 and its fairly well-established effects on smell (hyposmia/anosmia) to critical military service animals including explosive detector dog, narcotics detector dog, specialized search dog, combat tracker dog, mine detection dog, tactical explosive detector dog, improvised explosive device detector dog, patrol explosive detector dog, and patrol narcotics detector dog, as well as multipurpose canines used by special operations such as used by the U.S. customs and border protection agency (e.g., Beagle Brigade). This article presents in chronological order data that both individually (as received independently from multiple countries) and collectively urge studies that elucidate the following questions. 1. What animal species can be infected with SARS-CoV-2, the likely sources of infection, the period of infectivity, and transmissibility between these animals and to other animal species and humans? 2. What are the best diagnostic tests currently available for companion animals and livestock? 3. What expressions of illness in companion and other animal species can serve as disease markers? Although it is recognized that robust funding and methodology need to be identified to apply the best scientific investigation into these issues, there may be easily identifiable opportunities to capture information that can guide decision and study. First, it may be possible to quickly initiate a data collection strategy using in-place animal gatekeepers, such as zookeepers, veterinarians, kennel owners, feed lots, and military animal handlers. If provided a simple surveillance form, their detection of symptoms (lethargy, hyposmia, anosmia, and others) might be quickly reported to a central data collection site if one were created. Second, although current human COVID-19 disease is aligning around areas of population density and cluster events, it might be possible to overlay animal species density or veterinary reports that could signal some disease association in animals with COVID-19 patients. Unfortunately, although companion animals and zoo species have

repeatedly served as sentinels for emerging infectious diseases, they do not currently fall under the jurisdiction of any federal agency and are not under surveillance.

Publication Type

Journal article.

<101>

Accession Number

20203308739

Author

Al-Shamsi, H. O.; Abu-Gheida, I.; Rana, S. K.; Nijhawan, N.; Abdulsamad, A. S.; Alrawi, S.; Abuhaleeqa, M.; Almansoori, T. M.; Alkasab, T.; Aleassa, E. M.; McManus, M. C.

Title

Challenges for cancer patients returning home during SARS-COV-19 pandemic after medical tourism - a consensus report by the emirates oncology task force.

Source

BMC Cancer; 2020. 20(641):(10 July 2020). 52 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: The COVID-19 pandemic has caused a global health crisis. Numerous cancer patients from non-Western countries, including the United Arab Emirates (UAE), seek cancer care outside their home countries and many are sponsored by their governments for treatment. Many patients interrupted their cancer treatment abruptly and so returned to their home countries with unique challenges. In this review we will discuss practical challenges and recommendations for all cancer patients returning to their home countries from treatment abroad. Method: Experts from medical, surgical and other cancer



subspecialties in the UAE were invited to form a taskforce to address challenges and propose recommendations for patients returning home from abroad after medical tourism during the SARS-COV-19 Pandemic. Results: The taskforce which consisted of experts from medical oncology, hematology, surgical oncology, radiation oncology, pathology, radiology and palliative care summarized the current challenges and suggested a practical approaches to address these specific challenges to improve the returning cancer patients care. Lack of medical documentation, pathology specimens and radiology images are one of the major limitations on the continuation of the cancer care for returning patients. Difference in approaches and treatment recommendations between the existing treating oncologists abroad and receiving oncologists in the UAE regarding the optimal management which can be addressed by early and empathic communications with patients and by engaging the previous treating oncologists in treatment planning based on the available resources and expertise in the UAE. Interruption of curative radiotherapy (RT) schedules which can potentially increase risk of treatment failure has been a major challenge, RT dose-compensation calculation should be considered in these circumstances. Conclusion: The importance of a thorough clinical handover cannot be overstated and regulatory bodies are needed to prevent what can be considered unethical procedure towards returning cancer patients with lack of an effective handover. Clear communication is paramount to gain the trust of returning patients and their families. This pandemic may also serve as an opportunity to encourage patients to receive treatment locally in their home country. Future studies will be needed to address the steps to retain cancer patients in the UAE rather than seeking cancer treatment abroad.

#### Publication Type

Journal article.

<102>

#### Accession Number

20203304922

#### Author

Nunthavichitra, S.; Prapaso, S.; Luvira, V.; Muangnoicharoen, S.; Leungwutiwong, P.; Piyaphanee, W.

#### Title

COVID-19 presenting as acute undifferentiated febrile illness-a tropical world threat.

#### Source

American Journal of Tropical Medicine and Hygiene; 2020. 103(1):83-85. 15 ref.

#### Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

We report a young Thai man from the Thai-Myanmar border suffering from 2 days of fever and myalgia without respiratory tract signs or symptoms. He reported no history of travel through an area with confirmed COVID-19 cases or contact with sick persons. After excluding malaria and dengue, which are common causative agents of acute undifferentiated febrile illness (AUI) in Thailand, chest radiography was performed according to the patient triage protocol of our institute for AUI during the COVID-19 outbreak. Chest radiography revealed findings compatible with pneumonia. Nasopharyngeal, throat, and sputum samples tested positive for SARS-CoV-2 by real-time reverse transcriptase-PCR. The preadmission diagnosis of COVID-19 in this patient enabled appropriate management and isolation to prevent nosocomial transmission. Fever and nonspecific symptoms and laboratory results in early COVID-19 may be difficult to distinguish from tropical infectious diseases, especially when respiratory signs and symptoms are absent. This fact necessitates vigilant awareness in clinical investigation, management, and infection control, especially in tropical resource-limited settings.

Publication Type

Journal article.

<103>

Accession Number

20203304915

Author

Ratanarat, R.; Sivakorn, C.; Viarasilpa, T.; Schultz, M. J.

Title

Critical care management of patients with COVID-19: early experience in Thailand.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 103(1):48-54. 36 ref.

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Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

Since late December 2019, the world has been challenged with an outbreak of COVID-19. In Thailand, an upper middle-income country with a limited healthcare infrastructure and restricted human resources, nearly 3,000 confirmed COVID-19 cases have been reported as of early May 2020. Public health policies aimed at preventing new COVID-19 cases were very effective in halting the pandemic in Thailand. Case fatality in Thailand has been low (1.7%), at least in part due to early stratification according to risk of disease severity and timely initiation of supportive care with affordable measures. We present our initial experience with COVID-19 in Thailand, focusing on several aspects that may have played a crucial role in curtailment of the pandemic, and elements of care for severely ill COVID-19 patients, including stratification, isolation, and affordable diagnostic approaches and supportive care measures. We also discuss local considerations concerning some proposed experimental treatments.

Publication Type

Journal article.

<104>

Accession Number

20203304911

Author

Ogoina, D.

Title

COVID-19: the need for rational use of face masks in Nigeria.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 103(1):33-34. 17 ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

Because of the pandemic of COVID-19, the federal government of Nigeria has instituted a mandatory policy requiring everyone going out in public to wear face masks. Unfortunately, the Nigeria media is awash with images of misuse and abuse of face masks by the public, government officials, and healthcare workers. Medical masks are used widely in community settings amid reported scarcity within healthcare facilities. It is observed that some people wear face masks on their chin and neck, and mask wearers give no attention to covering their mouth and nose, especially when talking. Used face masks are kept with personal belongings or disposed indiscriminately in public spaces, leading to self and environmental contamination. Inappropriate use and disposal of face masks in Nigeria could promote the spread of the novel coronavirus in the country and negate the country's efforts to contain the COVID-19 pandemic. In the implementation of the universal masking policy in Nigeria, federal and state governments ought to consider local applicability, feasibility, and sustainability, as well as identify and mitigate all potential risks and unintended consequences. Also critical is the need for intensive public sensitization and education on appropriate use and disposal of face masks in the country.

Publication Type

Journal article.

<105>

Accession Number

20203304909

Author

Manju Rahi; Payal Das; Amit Sharma

Title

COVID-19 mitigation steps provide a blueprint for malaria control and elimination.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 103(1):28-30. 8 ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

Most countries around the world have responded promptly to the novel coronavirus disease (COVID-19) challenge by adopting considered and scientifically guided strategies for its containment. However, the situation is more complex for nations where malaria is endemic, as they now have the additional burden of COVID-19. In such nations, the healthcare systems are either in the preparatory or containment phase of the current pandemic. This enforced, sudden, and sharp public health refocus is likely to result in the disruption of annual malaria control activities such as distribution of insecticide-impregnated bed nets, indoor residual spraying of insecticide, maintenance of malaria surveillance, and mass provision of antimalarial drugs. Nonetheless, we feel that the best facets of COVID-19 public health management can become new guiding principles in malaria-endemic countries to improve malaria control and hasten malaria elimination. Redirection against malaria of the best public health initiatives used in COVID-19 containment could fast-track the global goal of a malaria-free world. Such public health advancement could be one positive outcome from the scourge of COVID-19.

Publication Type

Journal article.

<106>

Accession Number

20203292469

Author

Gupta, A.; Singla, R.; Caminero, J. A.; Singla, N.; Mrigpuri, P.; Mohan, A.

Title

Impact of COVID-19 on tuberculosis services in India.

Source

International Journal of Tuberculosis and Lung Disease; 2020. 24(6):637-639.

Publisher

International Union Against Tuberculosis and Lung Disease

Location of Publisher

Paris

Country of Publication

France

Publication Type

Correspondence.

<107>

Accession Number

20203291751

Author

Vollaard, A.; Gieling, E. M.; Linden, P. D. van der; Boer, B. S. M. G. J. de

Title

Hydroxychloroquine and chloroquine for COVID-19: no evidence of effectiveness. [Dutch]

Source

Nederlands Tijdschrift voor Geneeskunde; 2020. 164(24)22 ref.

Publisher

Bohn Stafleu Van Loghum

Location of Publisher

Houten

Country of Publication

Netherlands

## Abstract

On 3 March 2020, the document 'Drug treatment options for patients with COVID-19 (infections with SARS-CoV-2)' was published on the website of the Dutch Working Party on Antibiotic Policy (Stichting Werkgroep Antibioticabeleid, SWAB). Based on a 7-step analysis of the literature, hydroxychloroquine (HCQ) and chloroquine (CQ) were initially included in the SWAB document as possible drug treatments for hospitalized adult COVID-19 patients. However, recent weeks have seen the publication of the results of various studies into the effectiveness of treatment with HCQ and CQ in patients with COVID-19. On the basis of these results, we conclude that there is insufficient evidence to consider HCQ and CQ as meaningful treatment options in patients with COVID-19. Clinically relevant QTc prolongation occurs in at least 1 in 10 COVID-19 patients treated with HCQ or HQ.

## Publication Type

Journal article.

<108>

## Accession Number

20203292979

## Author

Etemadi, M.; Olyaeemaneh, A.; Tadayon, M. M.; Rostami, E.; Shiri, M.; Fazaeli, A. A.; Kabir, M. J.; Mehrabi Bahar, A.; Vosough Moghadam, A.

## Title

Psychometric analysis of health system resilience scale and assessing it in the face of Covid-19 crisis in Iran. [Persian]

## Source

Iranian Journal of Epidemiology; 2020. 16(1):fa4-fa19. 40 ref.

## Publisher

Iranian Epidemiological Association

## Location of Publisher

Tehran

## Country of Publication

Iran

## Abstract

**Background and Objectives:** The study aimed to analysis the psychometric properties of the health system resilience scale, assessing it and to introduce a conceptual model for qualitative analysis of Iran health system in the face of the civid-19 crisis. **Methods:** In this Mixed-method study, the determination of face and content validity was performed using 8 experts. The structure validity was investigated in a cross-sectional study through an electronic survey of 178 actors in the Iran health system. Resilience has been assessed in five dimensions using 5point Likert scale. **Results:** The percentage mean score of the Iranian health system resilience in the face of the Covid19 crisis was 41/08 and in the moderate level. The percentage mean score (standard deviation) for 5 dimension include awareness 39/2 (21), diversity 38/7 (21), self-regulation 36 (20/6), integration 39/9 (21/5) and adaptation 41/2 (21/8). Confirmatory factor analysis indicated the appropriate fit of the information with the five-component structure. **Conclusion:** The maximum score of resilience dimension belongs to adaptation and the lowest to the self-regulation indicating that it requires interventions to involve the private sector, and to design a new delivery system for crisis situations. The questionnaire can be used as a standard instrument for assessing the health system resilience.

## Publication Type

Journal article.

<109>

## Accession Number

20203288099

## Author

Herst, C. V.; Burkholz, S.; Sidney, J.; Sette, A.; Harris, P. E.; Massey, S.; Brasel, T.; Cunha-Neto, E.; Rosa, D. S.; Chao, W. C. H.; Carback, R.; Hodge, T.; Wang, L.; Ciotlos, S.; Lloyd, P.; Rubsamen, R.

## Title

An effective CTL peptide vaccine for Ebola Zaire based on survivors' CD8+ targeting of a particular nucleocapsid protein epitope with potential implications for COVID-19 vaccine design.

## Source

Vaccine; 2020. 38(28):4464-4475. 78 ref.



Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The 2013-2016 West Africa EBOV epidemic was the biggest EBOV outbreak to date. An analysis of virus-specific CD8+ T-cell immunity in 30 survivors showed that 26 of those individuals had a CD8+ response to at least one EBOV protein. The dominant response (25/26 subjects) was specific to the EBOV nucleocapsid protein (NP). It has been suggested that epitopes on the EBOV NP could form an important part of an effective T-cell vaccine for Ebola Zaire. We show that a 9-amino-acid peptide NP44-52 (YQVNNLEEI) located in a conserved region of EBOV NP provides protection against morbidity and mortality after mouse adapted EBOV challenge. A single vaccination in a C57BL/6 mouse using an adjuvanted microsphere peptide vaccine formulation containing NP44-52 is enough to confer immunity in mice. Our work suggests that a peptide vaccine based on CD8+ T-cell immunity in EBOV survivors is conceptually sound and feasible. Nucleocapsid proteins within SARS-CoV-2 contain multiple Class I epitopes with predicted HLA restrictions consistent with broad population coverage. A similar approach to a CTL vaccine design may be possible for that virus.

Publication Type

Journal article.

<110>

Accession Number

20203291590

Author

Singh, A. K.; Ashutosh Upadhyaya; Sonia Kumari; Sundaram, P. K.; Pawan Jeet

Title

Role of agriculture in making India \$5 trillion economy under corona pandemic circumstance.

Source

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[www.rcvsknowledge.org](http://www.rcvsknowledge.org)

Publisher

Society for Upliftment of Rural Economy (SURE)

Location of Publisher

Varanasi

Country of Publication

India

Abstract

India is currently trying hard to get a status of \$5.0 trillion economy. Agriculture contributes \$400 billion to the Indian economy, which is 2nd after China. To achieve this mammoth national target, all sectors of economy viz., agriculture, industry and service have to perform outstanding. To achieve this target, total export should be of \$1.0 trillion annually and share of agriculture and the allied sector should be 10%. To achieve \$100 million agri-export, smart agriculture is pivotal to sustain our products at international level. Agritech startup can play a vital role in this endeavour; however, the bottleneck should be removed with in the least possible time. If we succeed in this endeavour, this will not only lead to enhance per capita income from the current \$1800 to \$3600 but also double the income from farming systematically. Unfortunately, due to worldwide attack of global pandemic of Covid-2019 disease, every sphere of life has been severely paralysed. Agriculture sector was less affected as the food grain output was recorded highest ever (295.67 MT) and sector growth 3.7% in absolute term and 11.3% on the current price, during 2019-20. India will get rid off of such disasters relatively faster as compared to other nations, but this has the potential to push forward our economic dream to beam reality at least for a year or so. Probably India would be able to achieve the tag of \$5.0 trillion economy not sooner than 2026-27.

Publication Type

Journal article.

<111>

Accession Number

20203287127

Author

Ka&ccedil;ak, H.; Yildiz, M. S.

## Title

Stringency of government responses to COVID-19 and initial results: a comparison between five European countries and Turkey.

## Source

Turk Hijyen ve Deneysel Biyoloji Dergisi; 2020. 77(2):233-242. 25 ref.

## Publisher

Turkiye Halk Saglg Kurumu

## Location of Publisher

Ankara

## Country of Publication

Turkey

## Abstract

Objective: COVID-19, having no treatment and medical intervention strategy other than supportive treatment, necessitated prevention and containment measures. Quarantines, lock-downs of commercial places, school closures and many other types of interventions converged as cases and the number of deaths has increased. Causality and linkage between measures and their effects have become a concern. This study aims to compare the country policies (Italy, Spain, France, United Kingdom, Germany and Turkey) in terms of stringency levels and the dates interventions put into effect for containment of the pandemic and explore its effects on numbers of cases and deaths. Methods: The Government Response Stringency Index (GRSI), which is created to measure stringency of government measures against COVID-19 was used for the comparisons. In order to compare countries' policies and their effects on case and death statistics, we initially aggregated the stringency data of countries and compiled them with logistic numbers of cases and deaths. Additionally, variation between country responses could be more apparent by decomposing the total stringency score to individual policy components. Results: Number of cases and deaths, intervention stringency levels and components of policies were compared. The number of cases per million population was higher than other countries for Spain and Italy despite their more stringent measures. Turkey had the least cases per million value with relatively less stringent policies. The number of deaths per million population and stringency levels was higher for French, Italy, and Spain. Turkey and Germany seem to control at least the number of deaths with less stringent measures. United Kingdom had the least stringent scores but a considerable number of deaths. After close investigation of countries' stringency patterns with first case dates, it can be observed that Turkey is diverse from any other country, having taken action for any type of intervention before or concurrent with the first case, as the other countries had taken the measures weeks after their first cases. Conclusion: Inconsistency of perspective towards the outbreak and delay for implementation led European countries to take strict precautions against COVID-19 for longer period for the next phases of intervention. Turkey took action earlier than other nations before the number of cases increased, and reached less number of cases and deaths with less stringent measures. Comparison between intervention stringency levels and policy enforcement rapidity of selected countries highlighted the importance of implementation of measures on time.

Publication Type

Journal article.

<112>

Accession Number

20203289556

Author

Francis, M. J.

Title

A veterinary vaccine development process map to assist in the development of new vaccines.

Source

Vaccine; 2020. 38(29):4512-4515. 8 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The UK Government recognised the importance of vaccines in the control of new emerging disease threats and in 2015 established the UK Vaccine Network to focus on specific areas of need. One of these was the understanding of what is involved in the development of a new vaccine and what are the potential bottlenecks to a rapid response in the face of an epidemic such as Ebola, MERS and more recently COVID-19. A Working Group was established to initially produce a Vaccine Development Process Map for a Human Vaccine. However, in view of the importance of animal wellbeing and the significant impact of diseases with Zoonotic potential, a similar Map has been created outlining the Veterinary Vaccine Development Process. This paper describes the production of that Map and covers the process from the generation of a Target Product Profile (TPP) through Discovery and Feasibility, and on to Product Development and Registration.

Publication Type

Journal article.

<113>

Accession Number

20203287679

Author

Ahmed Hezima; Abdulmalek Aljafari; Abdulmoiz Aljafari; Abdulkader Mohammad; Ibrahim Adel

Title

Knowledge, attitudes, and practices of Sudanese residents towards COVID-19.

Source

Eastern Mediterranean Health Journal; 2020. 26(6):646-651. 10 ref.

Publisher

World Health Organization, Regional Office for the Eastern Mediterranean

Location of Publisher

Cairo

Country of Publication

Egypt

Abstract

Background: Coronavirus disease 2019 (COVID-19) is a severe acute respiratory infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Sufficient knowledge, positive attitudes, and correct practices are crucial for the prevention of COVID-19. Aims: This study aimed at assessing the knowledge, attitudes and practices of a sample of Sudanese residents towards COVID-19. Methods: A cross-sectional community-based survey was conducted on 812 participants, including both sexes and aged 18 years and above, with the exclusion of health care workers. Considerable care was taken to include people with different education levels. Results: Among the survey respondents (n=812), 45.8% were women, 40.4% held a bachelor's degree, 5.7% were uneducated, and 51.1% were aged 18-25 years. The overall correct rate of the knowledge questionnaire was 78.2%; 66.9% agreed that religious gatherings and events should be cancelled to prevent the spread of COVID-19; 34.1% of respondents

wore medical masks; and 57.9% avoided shaking hands in recent days. Conclusion: This study showed that sampled Sudanese residents have incomplete knowledge and poor practices towards COVID-19. However, we found that women and people aged 18-25 years were more knowledgeable and had more positive attitudes towards COVID-19. We hope that concerned authorities will establish awareness programmes to improve the ability to combat this disease.

Publication Type

Journal article.

<114>

Accession Number

20203280703

Author

Lau, S. K. P.; Luk, H. K. H.; Wong, A. C. P.; Fan, R. Y. Y.; Lam, C. S. F.; Li, K. S. M.; Ahmed, S. S.; Chow, F. W. N.; Cai JianPiao; Zhu Xun; Chan, J. F. W.; Lau, T. C. K.; Cao KaiYuan; Li MengFeng; Woo, P. C. Y.; Yuen KwokYung

Title

Identification of a novel betacoronavirus (Merbecovirus) in Amur hedgehogs from China.

Source

Viruses; 2019. 11(11)many ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

While dromedaries are the immediate animal source of Middle East Respiratory Syndrome (MERS) epidemic, viruses related to MERS coronavirus (MERS-CoV) have also been found in bats as well as hedgehogs. To elucidate the evolution of MERS-CoV-related viruses and their interspecies transmission

pathway, samples were collected from different mammals in China. A novel coronavirus related to MERS-CoV, Erinaceus amurensis hedgehog coronavirus HKU31 (Ea-HedCoV HKU31), was identified from two Amur hedgehogs. Genome analysis supported that Ea-HedCoV HKU31 represents a novel species under Merbecovirus, being most closely related to Erinaceus CoV from European hedgehogs in Germany, with 79.6% genome sequence identity. Compared to other members of Merbecovirus, Ea-HedCoV HKU31 possessed unique non-structural proteins and putative cleavage sites at ORF1ab. Phylogenetic analysis showed that Ea-HedCoV HKU31 and BetaCoV Erinaceus/VMC/DEU/2012 were closely related to NeoCoV and BatCoV PREDICT from African bats in the spike region, suggesting that the latter bat viruses have arisen from recombination between CoVs from hedgehogs and bats. The predicted HKU31 receptor-binding domain (RBD) possessed only one out of 12 critical amino acid residues for binding to human dipeptidyl peptidase 4 (hDPP4), the MERS-CoV receptor. The structural modeling of the HKU31-RBD-hDPP4 binding interphase compared to that of MERS-CoV and Tylonycteris bat CoV HKU4 (Ty-BatCoV HKU4) suggested that HKU31-RBD is unlikely to bind to hDPP4. Our findings support that hedgehogs are an important reservoir of Merbecovirus, with evidence of recombination with viruses from bats. Further investigations in bats, hedgehogs and related animals are warranted to understand the evolution of MERS-CoV-related viruses.

#### Publication Type

Journal article.

<115>

#### Accession Number

20203292016

#### Author

Hanney, S. R.; Kanya, L.; Pokhrel, S.; Jones, T. H.; Boaz, A.

#### Title

How to strengthen a health research system: WHO's review, whose literature and who is providing leadership?

#### Source

Health Research Policy and Systems; 2020. 18(72):(23 June 2020). 91 ref.

#### Publisher

BioMed Central Ltd

## Location of Publisher

London

## Country of Publication

UK

## Abstract

Background: Health research is important for the achievement of the Sustainable Development Goals. However, there are many challenges facing health research, including securing sufficient funds, building capacity, producing research findings and using both local and global evidence, and avoiding waste. A WHO initiative addressed these challenges by developing a conceptual framework with four functions to guide the development of national health research systems. Despite some progress, more is needed before health research systems can meet their full potential of improving health systems. The WHO Regional Office for Europe commissioned an evidence synthesis of the systems-level literature. This Opinion piece considers its findings before reflecting on the vast additional literature available on the range of specific health research system functions related to the various challenges. Finally, it considers who should lead research system strengthening. Main text: The evidence synthesis identifies two main approaches for strengthening national health research systems, namely implementing comprehensive and coherent strategies and participation in partnerships. The literature describing these approaches at the systems level also provides data on ways to strengthen each of the four functions of governance, securing financing, capacity-building, and production and use of research. Countries effectively implementing strategies include England, Ireland and Rwanda, whereas West Africa experienced effective partnerships. Recommended policy approaches for system strengthening are context specific. The vast literature on each function and the ever-growing evidence-base are illustrated by considering papers in just one key journal, Health Research Policy and Systems, and analysing the contribution of two national studies. A review of the functions of the Iranian system identifies over 200 relevant and mostly national records; an analysis of the creation of the English National Institute for Health Research describes the key leadership role played by the health department. Furthermore, WHO is playing leadership roles in helping coordinate partnerships within and across health research systems that have been attempting to tackle the COVID-19 crisis. Conclusions: The evidence synthesis provides a firm basis for decision-making by policy-makers and research leaders looking to strengthen national health research systems within their own national context. It identifies five crucial policy approaches- conducting situation analysis, sustaining a comprehensive strategy, engaging stakeholders, evaluating impacts on health systems, and partnership participation. The vast and ever-growing additional literature could provide further perspectives, including on crucial leadership roles for health ministries.

## Publication Type

Journal article.



<116>

Accession Number

20203292013

Author

Kisely, S.; Warren, N.; McMahon, L.; Dalais, C.; Henry, I.; Siskind, D.

Title

Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis.

Source

The BMJ; 2020. 369(M1642):(5 May 2020). 77 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Objective: To examine the psychological effects on clinicians of working to manage novel viral outbreaks, and successful measures to manage stress and psychological distress. Design: Rapid review and meta-analysis. Data sources: Cochrane Central Register of Controlled Trials, PubMed/Medline, PsycInfo, Scopus, Web of Science, Embase, and Google Scholar, searched up to late March 2020. Eligibility criteria for study selection: Any study that described the psychological reactions of healthcare staff working with patients in an outbreak of any emerging virus in any clinical setting, irrespective of any comparison with other clinicians or the general population. Results: 59 papers met the inclusion criteria: 37 were of severe acute respiratory syndrome (SARS), eight of coronavirus disease 2019 (covid-19), seven of Middle East respiratory syndrome (MERS), three each of Ebola virus disease and influenza A virus subtype H1N1, and one of influenza A virus subtype H7N9. Of the 38 studies that compared psychological outcomes of healthcare workers in direct contact with affected patients, 25 contained data that could be combined in a pairwise meta-analysis comparing healthcare workers at high and low risk of exposure. Compared with lower risk controls, staff in contact with affected patients had greater levels of both acute or post-traumatic stress (odds ratio 1.71, 95% confidence interval 1.28 to 2.29) and psychological distress (1.74, 1.50 to 2.03), with similar results for continuous outcomes. These findings were the same as in the other studies not included in the meta-analysis. Risk factors for psychological distress included being younger, being more junior, being the parents of dependent children, or having an infected family member. Longer quarantine, lack of practical support, and stigma also contributed.

Clear communication, access to adequate personal protection, adequate rest, and both practical and psychological support were associated with reduced morbidity. Conclusions: Effective interventions are available to help mitigate the psychological distress experienced by staff caring for patients in an emerging disease outbreak. These interventions were similar despite the wide range of settings and types of outbreaks covered in this review, and thus could be applicable to the current covid-19 outbreak.

#### Publication Type

Journal article.

<117>

#### Accession Number

20203292527

#### Author

Hassani, R. T. J.; Bennis, A.

#### Title

Hydroxychloroquine as antiviral prophylaxis for exposed caregivers to COVID-19: an urgent appraisal is needed. (First thematic issue on novel coronavirus (COVID-19).)

#### Source

Journal of Infection and Public Health; 2020. 13(6):865-867. 27 ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

#### Country of Publication

UK

#### Abstract

Background: Since the onset of the new coronavirus pandemic, the world is facing a public health emergency. Repositioning hydroxychloroquine (HQ) seems to be a promising option. Many emerging evidences have converged on the effectiveness of HQ in the treatment of Covid-19 infection. In a recent paper, Gautret et al. suggested that further works are needed to determine if HQ antiviral prophylaxis is

useful, especially for healthcare workers. Methods: The purpose of this paper is to assess the Covid-19 exposure and risks level among caregivers. For this, we performed research on internet and PubMed by crossing the following keywords: healthcare givers, healthcare workers, doctors, nurses, coronavirus, Covid-19, mortality, infection rate, chloroquine, hydroxychloroquine. Results: Data on healthcare worker's infection and mortality by Covid-19 are partial and are not systematically published. However, it seems that the infection rate varies between 3.8% and 9% depending on the country. Moreover, the mean age of this population is relatively old, especially in the OECD area. Conclusions: Anti-Covid-19 HQ prophylaxis should be urgently accessed, especially for healthcare workers. It is to be hoped that HQ prophylaxis reduces the morbidity and mortality from Covid-19 infection among this population which is particularly exposed and relatively old.

#### Publication Type

Journal article.

<118>

#### Accession Number

20203292505

#### Author

Tochitani, K.; Iwamoto, N.; Motobayashi, H.; Yamamoto, S.; Shimizu, T.

#### Title

Imported and locally transmitted mild SARS-CoV-2 pneumonia cases in Japan.

#### Source

Journal of Infection and Chemotherapy; 2020. 26(8):854-857. 15 ref.

#### Publisher

Elsevier

#### Location of Publisher

Oxford

#### Country of Publication

UK

#### Abstract

Here, we describe two mild SARS-CoV-2 pneumonia cases. One was imported from Wuhan, and the other was locally transmitted in Japan without recent travel to China. In both cases, lower respiratory tract symptoms were observed first, and high fever progressed in about one week. The laboratory findings revealed normal WBC and CRP despite apparent lung infiltrations, and typical observations on CT imaging were important diagnostic clues. In the domestic endemic situation, a comprehensive evaluation of the clinical course, and laboratory and radiological findings was required for diagnosis.

Publication Type

Journal article.

<119>

Accession Number

20203290644

Author

Quach HaLinh; Hoang NgocAnh

Title

COVID-19 in Vietnam: a lesson of pre-preparation.

Source

Journal of Clinical Virology; 2020. 1274 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: Vietnam was slowing the spread of COVID-19 to 200 cases by the end of March. From perspective of a relatively vulnerable healthcare systems, timely interventions were implemented to different stage of pandemic progress to limit the spread. Method: The authors compiled literature on different public health measures in Vietnam in compared to the progression of COVID-19 from January

to March 2020. Results: Three stages of pandemic progression of COVID-19 were recorded in Vietnam. At 213 confirmed cases under treatment and isolation, a range of interventions were enforced including intensive and expansive contact, mass testing, isolation, and sterilization. Many were in place before any case were reported. Conclusion: Preparation were key for Vietnam's healthcare system in the ever-changing landscape of COVID-19 pandemic.

Publication Type

Journal article.

<120>

Accession Number

20203293707

Author

Lee SunHee; Son Hyunjin; Peck KyongRan

Title

Can post-exposure prophylaxis for COVID-19 be considered as an outbreak response strategy in long-term care hospitals?

Source

International Journal of Antimicrobial Agents; 2020. 55(6)10 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

In the context of the ongoing global outbreak of coronavirus disease 2019 (COVID-19), management of exposure events is a concern. Long-term care hospitals (LTCHs) are particularly vulnerable to cluster outbreaks because facilities for patient isolation and healthcare personnel to care for these patients in isolation are difficult to arrange in a large outbreak situation. Although several drugs have been

proposed as treatment options, there are no data on the effectiveness and safety of post-exposure prophylaxis (PEP) for COVID-19. After a large COVID-19 exposure event in an LTCH in Korea, PEP using hydroxychloroquine (HCQ) was administered to 211 individuals, including 189 patients and 22 careworkers, whose baseline polymerase chain reaction (PCR) tests for COVID-19 were negative. PEP was completed in 184 (97.4%) patients and 21 (95.5%) careworkers without serious adverse events. At the end of 14 days of quarantine, all follow-up PCR tests were negative. Based on our experience, further clinical studies are recommended for COVID-19 PEP.

Publication Type

Journal article.

<121>

Accession Number

20203293704

Author

Zhao Ming

Title

Cytokine storm and immunomodulatory therapy in COVID-19: role of chloroquine and anti-IL-6 monoclonal antibodies.

Source

International Journal of Antimicrobial Agents; 2020. 55(6)19 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Highlights: \* Discussion of the role of immunomodulatory agents to reduce the cytokine storm in severe cases of COVID-19. \* Potential immunomodulatory agents currently used in the treatment of

COVID-19 (chloroquine, hydroxychloroquine and tocilizumab) are discussed. \* Other immunomodulatory agents with good safety profiles may be considered for use in combination with antiviral drugs for the treatment of severe or critical cases of COVID-19.

Publication Type

Journal article.

<122>

Accession Number

20203293702

Author

Olsen, M.; Cook, S. E.; Huang, V.; Pedersen, N.; Murphy, B. G.

Title

Perspectives: potential therapeutic options for SARS-CoV-2 patients based on feline infectious peritonitis strategies: central nervous system invasion and drug coverage.

Source

International Journal of Antimicrobial Agents; 2020. 55(6)25 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections are continuing to increase globally, and clinicians at hospitals are currently preparing lists of US Food and Drug Administration (FDA)-approved therapies as options for the treatment of SARS-CoV-2. For several years, we have been investigating anti-coronavirus therapies directed at feline infectious peritonitis (FIP) [1,2], a disease caused by a coronavirus with a nearly 100% mortality in felines. Feline enteric coronavirus (FEC), commonly found in many asymptomatic felines, mutates into the virulent and lethal FIP coronavirus [3].

We believe that our experimental observations for the treatment of FIP may be relevant and translational for recent in vitro results of SARS-CoV-2 [4] in the absence of extensive laboratory and human clinical trials. A FIP coronavirus protease inhibitor (GC376) was successful in the treatment of a subset of felines with FIP; however, in cases where there was neurological involvement, the protease inhibitor was unable to prevent progression of central nervous system (CNS) disease, resulting in neurological FIP and subsequent euthanasia [5]. The polymerase inhibitor GS-441524 has already demonstrated significant activity in a feline clinical trial against FIP [1], but the treatment of neurological involvement has yet to be demonstrated. Remdesivir, which is a prodrug of GS-441524, shows great promise for the treatment of SARS-CoV-2 [6] but is not currently approved by the FDA and is only available in an intravenous formulation. There is an urgent need for anti-SARS-CoV-2 therapies that are already FDA-approved, orally bioavailable, appropriate for organs that express the SARS-CoV-2 target angiotensin-converting enzyme 2 (ACE2), and may also complement or synergise with remdesivir upon approval. Whilst the detailed experimental results will be communicated elsewhere (unpublished data from BGM Laboratory), we believe our observations could support clinicians regarding treatment options in addition to supportive care.

#### Publication Type

Journal article.

<123>

#### Accession Number

20203278799

#### Author

Jureka, A. S.; Silvas, J. A.; Basler, C. F.

#### Title

Propagation, inactivation, and safety testing of SARS-CoV-2.

#### Source

Viruses; 2020. 12(6)19 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel



## Country of Publication

Switzerland

## Abstract

In late 2019, a novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged in Wuhan, the capital of the Chinese province Hubei. Since then, SARS-CoV-2 has been responsible for a worldwide pandemic resulting in over 4 million infections and over 250,000 deaths. The pandemic has instigated widespread research related to SARS-CoV-2 and the disease that it causes, COVID-19. Research into this new virus will be facilitated by the availability of clearly described and effective procedures that enable the propagation and quantification of infectious virus. As work with the virus is recommended to be performed at biosafety level 3, validated methods to effectively inactivate the virus to enable the safe study of RNA, DNA, and protein from infected cells are also needed. Here, we report methods used to grow SARS-CoV-2 in multiple cell lines and to measure virus infectivity by plaque assay using either agarose or microcrystalline cellulose as an overlay as well as a SARS-CoV-2 specific focus forming assay. We also demonstrate effective inactivation by TRIzol, 10% neutral buffered formalin, beta propiolactone, and heat.

## Publication Type

Journal article.

<124>

## Accession Number

20203278791

## Author

Ianevski, A.; Yao RouAn; Fenstad, M. H.; Biza, S.; Zusinaite, E.; Reisberg, T.; Lysvand, H.; L&oslash;seth, K.; Landsem, V. M.; Malmring, J. F.; Oksenysh, V.; Erlandsen, S. E.; Aas, P. A.; Hagen, L.; Pettersen, C. H.; Tenson, T.; Afset, J. E.; Nordb&oslash;slash;, S. A.; Bj&oslash;slash;r&aring;s, M.; Kainov, D. E.

## Title

Potential antiviral options against SARS-CoV-2 infection.

## Source

Viruses; 2020. 12(6)many ref.

## Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

As of June 2020, the number of people infected with severe acute respiratory coronavirus 2 (SARS-CoV-2) continues to skyrocket, with more than 6.7 million cases worldwide. Both the World Health Organization (WHO) and United Nations (UN) has highlighted the need for better control of SARS-CoV-2 infections. However, developing novel virus-specific vaccines, monoclonal antibodies and antiviral drugs against SARS-CoV-2 can be time-consuming and costly. Convalescent sera and safe-in-man broad-spectrum antivirals (BSAAs) are readily available treatment options. Here, we developed a neutralization assay using SARS-CoV-2 strain and Vero-E6 cells. We identified the most potent sera from recovered patients for the treatment of SARS-CoV-2-infected patients. We also screened 136 safe-in-man broad-spectrum antivirals against the SARS-CoV-2 infection in Vero-E6 cells and identified nelfinavir, salinomycin, amodiaquine, obatoclox, emetine and homoharringtonine. We found that a combination of orally available virus-directed nelfinavir and host-directed amodiaquine exhibited the highest synergy. Finally, we developed a website to disseminate the knowledge on available and emerging treatments of COVID-19.

Publication Type

Journal article.

<125>

Accession Number

20203285079

Author

Perricone, C.; Triggianese, P.; Bartoloni, E.; Cafaro, G.; Bonifacio, A. F.; Bursi, R.; Perricone, R.; Gerli, R.

Title

The anti-viral facet of anti-rheumatic drugs: lessons from COVID-19.

Source

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection has posed the world at a pandemic risk. Coronavirus-19 disease (COVID-19) is an infectious disease caused by SARS-CoV-2, which causes pneumonia, requires intensive care unit hospitalization in about 10% of cases and can lead to a fatal outcome. Several efforts are currently made to find a treatment for COVID-19 patients. So far, several anti-viral and immunosuppressive or immunomodulating drugs have demonstrated some efficacy on COVID-19 both in vitro and in animal models as well as in cases series. In COVID-19 patients a pro-inflammatory status with high levels of interleukin (IL)-1B, IL-1 receptor (R)A and tumor necrosis factor (TNF)-a has been demonstrated. Moreover, high levels of IL-6 and TNF-a have been observed in patients requiring intensive-care-unit hospitalization. This provided rationale for the use of anti-rheumatic drugs as potential treatments for this severe viral infection. Other agents, such as hydroxychloroquine and chloroquine might have a direct anti-viral effect. The anti-viral aspect of immunosuppressants towards a variety of viruses has been known since long time and it is herein discussed in the view of searching for a potential treatment for SARS-CoV-2 infection.

Publication Type

Journal article.

<126>

Accession Number

20203288618

Author

Souza, C. T. V. de; Santana, C. S. de; Ferreira, P.; Nunes, J. A.; Lourdes Benamor Teixeira, M. de; Silveira Gouv&ecirc;a, M. I. F. da

Title

Caring in the age of COVID-19: lessons from science and society.

Source

Cadernos de Saude Publica; 2020. 36(6)13 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

This paper focuses on our research and intervention in health promotion with patients and communities affected by various infectious diseases, in the project Knowledge-Sharing Platform. This project is developed at the National Institute of Infectious Diseases Evandro Chagas in the Oswaldo Cruz Foundation, Rio de Janeiro, Brazil, and promotes the continuing involvement of health researchers and professionals in the collaborative production of knowledge on health with patients and community groups and in their training as community health promoters. The new epidemic scenario created the demand for a space of dialogue and knowledge-sharing on the prevention of COVID-19 transmission. Due to the interruption of regular activities in the Knowledge-Sharing Platform, a strategy was launched to serve as a link between science and society and help overcome the social isolation imposed by the COVID-19 pandemic. The WhatsApp group allowed project members to participate by addressing questions (audio) on COVID-19 through mediation by community group leaders. The main questions by participants related to risk factors, transmission, immunity to the novel coronavirus, care related to prevention, symptoms, and treatment; and COVID-19 and influenza vaccine. The educational material Caring in the Age of COVID-19 was produced and shared with community leaders and distributed to the respective groups and was eventually shared in their communities as a response to a demand for knowledge that responds to the concerns of people already exposed to structural vulnerability.

Publication Type

Journal article.

<127>

Accession Number

20203288610

Author

Souza Noronha, K. V. M. de; Guedes, G. R.; Turra, C. M.; Andrade, M. V.; Botega, L.; Nogueira, D.; Calazans, J. A.; Carvalho, L.; Servo, L.; Ferreira, M. F.

Title

The COVID-19 pandemic in Brazil: analysis of supply and demand of hospital and ICU beds and mechanical ventilators under different scenarios.

Source

Cadernos de Saude Publica; 2020. 36(6)31 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

This study aims to analyze the pressure on the Brazilian health system from the additional demand created by COVID-19. The authors performed a series of simulations to estimate the demand for hospital beds (health micro-regions) as well as to ICU beds, and mechanical ventilators (health macro-regions) under different scenarios of intensity (infection rates equivalent to 0.01, 0.1, and 1 case per 100 inhabitants) and time horizons (1, 3, and 6 months). The results reveal a critical situation in the system for meeting this potential demand, with numerous health micro-regions and macro-regions operating beyond their capacity, compromising the care for patients, especially those with more severe symptoms. The study presents three relevant messages. First, it is necessary to slow the spread of COVID-19 in the Brazilian population, allowing more time for the reorganization of the supply and relieve the pressure on the health system. Second, the expansion of the number of available beds will be the key. Even if the private sector helps offset the deficit, the combined supply from the two sectors (public and private) would be insufficient in various macro-regions. The construction of field hospitals is important, both in places with a history of "hospital deserts" and in those already pressured by demand. The third message involves the regionalized organization of health services, whose design may be adequate in situations of routine demand, but which suffer additional challenges during pandemics, especially if patients have to travel long distances to receive care.

Publication Type

Journal article.

<128>

Accession Number

20203288606

Author

Melo, G. C. de; Araúcajo Neto, R. A. de; Araúcajo, K. C. G. M. de

Title

Forecasting the rate of cumulative cases of COVID-19 infection in northeast Brazil: a boltzmann function-based modeling study.

Source

Cadernos de Saude Publica; 2020. 36(6)28 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The COVID-19 death rate in Northeast Brazil is much higher when compared to the national average, demanding a study into the prognosis of the region for planning control measures and preventing the collapse of the health care system. We estimated the potential total cumulative cases of COVID-19 in the region for the next three months. Our study included all confirmed cases, from March 8 until April 28, 2020, collected from the official website that reports the situation of COVID-19 infections in Brazil. The Boltzmann function was applied to a data simulation for each set of data regarding different states. The model data were well fitted, with R<sup>2</sup> values close to 0.999. Up to April 28, 20,665 cases were confirmed in the region. The state of Ceara has the highest rate of accumulated cases per 100,000 inhabitants (75.75), followed by Pernambuco. We estimated that the states of Ceara, Sergipe and Paraiba will experience a dramatic increase in the rate of cumulative cases until July 31. Maranhao, Pernambuco, Rio Grande do Norte and Piaui showed a more discreet increase in the model. For Bahia and Alagoas, a 4.7 and 6.6-fold increase in the rate was estimated, respectively. We estimate a substantial increase in the rate of cumulative cases per 100,000 inhabitants in the region within three

months, especially for Ceara, Sergipe and Paraiba. The Boltzmann function proved to be a simple tool for epidemiological forecasting that can help planning the measures to contain COVID-19.

Publication Type

Journal article.

<129>

Accession Number

20203289861

Author

Chen, K.; Zhan Yue; Zhang YuMei; Fan ShengGen

Title

The impacts of COVID-19 on global food security and the coping strategy. [Chinese]

Source

China Rural Economy; 2020. (5)19 ref.

Publisher

Institute of Rural Development, Chinese Academy of Social Sciences

Location of Publisher

Beijing

Country of Publication

China

Abstract

As COVID-19 spreads around the globe, various border controls and containment measures have been introduced to contain the disease across countries. These controls could potentially lead to hiccups in global food security. The effects could be even stronger in those countries that are already facing exceptional emergencies due to ongoing or emerging conflicts and natural disasters. Currently, the global food supply is generally sufficient and the food prices remain stable. But there could be severe threats to global food security if the COVID-19 further spreads. Global food supply will be affected as a consequence of value chain disruption from lockdowns and other restrictions. Restrictions on movement within and across countries can hinder food-related logistic services, disrupt entire food supply chains

and affect food availability. Export restrictions will affect both low-income countries that depend on food imports and developing countries that depend on the export of primary agricultural products. The possible global recession caused by the COVID-19 spread will lead to reductions in income and purchasing power of residents, making it more difficult for residents to obtain adequate nutritious food. Countries need to work together to strengthen cooperation during this pandemic that is affecting all regions of the world. Governments will need to strengthen their cooperation on global governance and implement policies and programs that target those most vulnerable. Trade channels should be kept open. E-commerce and delivery companies should be encouraged to play a key role to secure continued food access both domestically and internationally.

Publication Type

Journal article.

<130>

Accession Number

20203289860

Author

Cheng GuoQiang; Zhu ManDe

Title

COVID-19 pandemic is affecting food security: trends, impacts and recommendations. [Chinese]

Source

China Rural Economy; 2020. (5)11 ref.

Publisher

Institute of Rural Development, Chinese Academy of Social Sciences

Location of Publisher

Beijing

Country of Publication

China

Abstract



The COVID-19 pandemic spreads rapidly around the world, triggering abnormal price fluctuations in the global food market and concerns about China's food security. The impacts of the pandemic on global food production and trade in the later period could be further increased, and there may be a higher volatility in the global food market. As liquidity is fully released in the global financial market, the risk of a food crisis similar to that in 2008 will increase if the international speculative capital speculates on the agricultural product market. The analysis shows that China's food security system can generally address the challenges of the increased global food market volatility, but there is a need to prevent and control the risk of the international price volatility of soybeans and other agricultural products that China imports in large quantities. This article argues that in order to attach great importance to the possible risks and challenges of global food market fluctuations, it is necessary to strengthen monitoring, draw early plans, address challenges systematically and implement measures comprehensively. Possible measures include effectively reducing the interference and impact of unstable expectation of imported cases of COVID-19 on domestic food market; further strengthening food production capacity; building a risk governance system to guarantee national food security; improving the reserve system for important agricultural products; reinforcing the global supply chain management of agricultural products; and enhancing the coordination of international food security, trade and investment policies.

Publication Type

Journal article.

<131>

Accession Number

20203283666

Author

Mani, J. S.; Johnson, J. B.; Steel, J. C.; Broszczak, D. A.; Neilsen, P. M.; Walsh, K. B.; Naiker, M.

Title

Natural product-derived phytochemicals as potential agents against coronaviruses: a review.

Source

Virus Research; 2020. 284many ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Coronaviruses are responsible for a growing economic, social and mortality burden, as the causative agent of diseases such as severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), avian infectious bronchitis virus (IBV) and COVID-19. However, there is a lack of effective antiviral agents for many coronavirus strains. Naturally existing compounds provide a wealth of chemical diversity, including antiviral activity, and thus may have utility as therapeutic agents against coronaviral infections. The PubMed database was searched for papers including the keywords coronavirus, SARS or MERS, as well as traditional medicine, herbal, remedy or plants, with 55 primary research articles identified. The overwhelming majority of publications focussed on polar compounds. Compounds that show promise for the inhibition of coronavirus in humans include scutellarein, silvestrol, tryptanthrin, saikosaponin B2, quercetin, myricetin, caffeic acid, psoralidin, isobavachalcone, and lectins such as griffithsin. Other compounds such as lycorine may be suitable if a therapeutic level of antiviral activity can be achieved without exceeding toxic plasma concentrations. It was noted that the most promising small molecules identified as coronavirus inhibitors contained a conjugated fused ring structure with the majority being classified as being polyphenols.

Publication Type

Journal article.

<132>

Accession Number

20203281777

Author

Lojkić, I.; Šćepić, I.; Krešić, N.; Janković, I. L.; Bedeković, T.

Title

In the shadow of COVID-19: towards declaring a rabies-free Croatia. [Croatian]

Source

Veterinarska Stanica; 2020. 51(4):417-423. 42 ref.

Publisher

Hrvatski veterinarski institut, Centar za peradarstvo

Location of Publisher

Zagreb

Country of Publication

Croatia

Abstract

One of the strategic goals of the European Union (EU) in the field of animal health is to declare the entire EU territory free of classical terrestrial rabies (caused by the classical rabies virus) by 2020. Thanks to the success of oral vaccination, implemented in Europe since 1978, most countries in Western and Central Europe have been free of rabies since the beginning of the 21st century. The last case of rabies in Croatia was recorded in the spring of 2014, just three years after the start of implementation of the national oral rabies vaccination programme. The logical next step is obtaining the official status of a rabies-free country, and consequently transitioning to a new rabies control policy in the country. However, understanding rabies as a global threat to health, especially given the presence of the virus in bats, constant monitoring is still needed.

Publication Type

Journal article.

<133>

Accession Number

20203284835

Author

Insiat Islam Rabby

Title

Current drugs with potential for treatment of COVID-19: a literature review.

Source

Journal of Pharmacy & Pharmaceutical Sciences; 2020. 23:58-64. 30 ref.

Publisher

Location of Publisher

Alberta

Country of Publication

Canada

Abstract

Purpose: SARS-CoV-2 first emerged in China in December 2019 and rapidly spread worldwide. No vaccine or approved drug is available to eradicate the virus, however, some drugs that are indicated for other afflictions seems to be potentially beneficial to treat the infection albeit without unequivocal evidence. The aim of this article is to review the published background on the effectiveness of these drugs against COVID-19 Methods: A thorough literature search was conducted on recently published studies which have published between January 1 to March 25, 2020. PubMed, Google Scholar and Science Direct databases were searched Results: A total 22 articles were found eligible. 8 discuss about treatment outcomes from their applied drugs during treatment of COVID-19 patients, 4 report laboratory tests, one report animal trial and other 9 articles discuss recommendations and suggestions based on the treatment process and clinical outcomes of other diseases such as malaria, ebola, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). The data and/or recommendations are categorized in 4 classes: (a) anti-viral and anti-inflammatory drugs, (b) anti-malaria drugs, (c) traditional Chinese drugs and (d) other treatments/drugs. Conclusion: All examined treatments, although potentiality effective against COVID-19, need either appropriate drug development or clinical trial to be suitable for clinical use.

Publication Type

Journal article.

<134>

Accession Number

20203291178

Author

Botes, W. M.; Thaldar, D. W.

Title

COVID-19 and quarantine orders: a practical approach.

Source

SAMJ - South African Medical Journal; 2020. 110(6):469-472. 27 ref.

Publisher

Health and Medical Publishing Group

Location of Publisher

Cape Town

Country of Publication

South Africa

Abstract

Quarantine is a very effective method for containing the spread of highly infectious diseases in large populations during a pandemic, but it is only effective if properly implemented. The co-operation and compliance of people entering quarantine are critical to its success. However, owing to the isolating and social distancing nature of quarantine, it often leads to extreme economic hardship and shortages in basic needs such as food, medicine, water and communication - and to the curtailment of certain universal social norms such as attending a parent's funeral. To escape these hardships, people often refuse to enter voluntary quarantine, or breach quarantine rules. In these circumstances, health authorities are obliged to act in the best interests of the public and obtain court orders to force some people into quarantine. In further extreme circumstances, when a national lockdown is ordered, non-compliance with quarantine measures may result in arrests and penalties. The scope of this article is limited to the period prior to and following such a lockdown, during which quarantine may still be vital for the containment of COVID-19. Because a quarantine order will deprive an individual of his or her freedom, this must be carefully balanced with the public interest. This article explains the legal and ethical considerations of this balancing exercise and provides practical guidance for obtaining quarantine orders.

Publication Type

Journal article.

<135>

Accession Number

20203291177

Author

Roux, C. le; Dramowski, A.

Title

Personal protective equipment (PPE) in a pandemic: approaches to PPE preservation for South African healthcare facilities.

Source

SAMJ - South African Medical Journal; 2020. 110(6):466-468. 22 ref.

Publisher

Health and Medical Publishing Group

Location of Publisher

Cape Town

Country of Publication

South Africa

Abstract

Personal protective equipment (PPE) is key to protecting healthcare workers from COVID-19 infection, but the pandemic has disrupted supply chains globally and necessitated rapid review of the scientific evidence for PPE re-use. In South Africa, where the COVID-19 epidemic is still developing, healthcare facilities have a short window of opportunity to improve PPE supply chains, train staff on prudent PPE use, and devise plans to track and manage the inevitable increases in PPE demand. This article discusses the available PPE preservation strategies and addresses the issue of decontamination and re-use of N95 respirators as a last-resort strategy for critical shortages during the pandemic.

Publication Type

Journal article.

<136>

Accession Number

20203291172

Author

Singh, J. A.

Title

COVID-19: mandatory institutional isolation v. voluntary home self-isolation.

Source

SAMJ - South African Medical Journal; 2020. 110(6):453-455. 8 ref.

Publisher

Health and Medical Publishing Group

Location of Publisher

Cape Town

Country of Publication

South Africa

Abstract

Since community transmission of COVID-19 became established in South Africa, individuals who test positive for COVID-19 and who do not require hospitalisation have been permitted to self-isolate in their homes to reduce the burden on the health system. The Premier of KwaZulu-Natal Province has since announced that self-isolation will no longer be permitted in the province. Instead, mandatory isolation in state-designated isolation sites would apply. This policy change marks a dangerous departure from the country's prevailing position on home-based self-isolation and should not be replicated elsewhere.

Publication Type

Journal article.

<137>

Accession Number

20203291111

Author

Xie Jiang; Covassin, N.; Fan ZhengYang; Prachi Singh; Gao Wei; Li GuanGxi; Kara, T.; Somers, V. K.

Title

Association between hypoxemia and mortality in patients with COVID-19.

Source

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Publisher

Mayo Foundation for Medical Education and Research

Location of Publisher

Rochester

Country of Publication

USA

Abstract

**Objective:** To identify markers associated with in-hospital death in patients with coronavirus disease 2019 (COVID-19)-associated pneumonia. **Patients and Methods:** A retrospective cohort study was conducted of 140 patients with moderate to critical COVID-19-associated pneumonia requiring oxygen supplementation admitted to the hospital from January 28, 2020, through February 28, 2020, and followed up through March 13, 2020, in Union Hospital, Wuhan, China. Oxygen saturation (SpO<sub>2</sub>) and other measures were tested as predictors of in-hospital mortality in survival analysis. **Results:** Of 140 patients with COVID-19-associated pneumonia, 72 (51.4%) were men, with a median age of 60 years. Patients with SpO<sub>2</sub> values of 90% or less were older and were more likely to be men, to have hypertension, and to present with dyspnea than those with SpO<sub>2</sub> values greater than 90%. Overall, 36 patients (25.7%) died during hospitalization after median 14-day follow-up. Higher SpO<sub>2</sub> levels after oxygen supplementation were associated with reduced mortality independently of age and sex (hazard ratio per 1-U SpO<sub>2</sub>, 0.93; 95% CI, 0.91 to 0.95; P<.001). The SpO<sub>2</sub> cutoff value of 90.5% yielded 84.6% sensitivity and 97.2% specificity for prediction of survival. Dyspnea was also independently associated with death in multivariable analysis (hazard ratio, 2.60; 95% CI, 1.24 to 5.43; P=.01). **Conclusion:** In this cohort of patients with COVID-19, hypoxemia was independently associated with in-hospital mortality. These results may help guide the clinical management of patients with severe COVID-19, particularly in settings requiring strategic allocation of limited critical care resources.

Publication Type

Journal article.

<138>

Accession Number

20203291102



## Author

Xiu LeShan; Binder, R. A.; Alarja, N. A.; Kochev, K.; Coleman, K. K.; Than, S. T.; Bailey, E. S.; Bui VuongN.; Toh TeckHock; Erdman, D. D.; Gray, G. C.

## Title

A RT-PCR assay for the detection of coronaviruses from four genera. (Special Section: Coronavirus.)

## Source

Journal of Clinical Virology; 2020. 12822 ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

Background: During the past two decades, three novel coronaviruses (CoVs) have emerged to cause international human epidemics with severe morbidity. CoVs have also emerged to cause severe epidemics in animals. A better understanding of the natural hosts and genetic diversity of CoVs are needed to help mitigate these threats. Background: To design and evaluate a molecular diagnostic tool for detection and identification of all currently recognized and potentially future emergent CoVs from the Orthocoronavirinae subfamily. Study design and Results: We designed a semi-nested, reverse transcription RT-PCR assay based upon 38 published genome sequences of human and animal CoVs. We evaluated this assay with 14 human and animal CoVs and 11 other non-CoV respiratory viruses. Through sequencing the assay's target amplicon, the assay correctly identified each of the CoVs; no cross-reactivity with 11 common respiratory viruses was observed. The limits of detection ranged from 4 to 4 10<sup>2</sup> copies/reaction, depending on the CoV species tested. To assess the assay's clinical performance, we tested a large panel of previously studied specimens: 192 human respiratory specimens from pneumonia patients, 5 clinical specimens from COVID-19 patients, 81 poultry oral secretion specimens, 109 pig slurry specimens, and 31 aerosol samples from a live bird market. The amplicons of all RT-PCR-positive samples were confirmed by Sanger sequencing. Our assay performed well with all tested specimens across all sample types. Conclusions: This assay can be used for detection and identification of all previously recognized CoVs, including SARS-CoV-2, and potentially any emergent CoVs in the Orthocoronavirinae subfamily.

## Publication Type

Journal article.

<139>

Accession Number

20203297840

Author

Wang XiaoRong; Zhou Qiong; He YuKun; Liu LingBo; Ma XinQian; Wei XiaoShan; Jiang NanChuan; Liang LiMei; Zheng YaLi; Ma Ling; Xu Yu; Yang Dong; Zhang JianChu; Yang BoHan; Jiang Ning; Deng Tao; Zhai BingBing; Gao Yang; Liu WenXuan; Bai XingHua; Pan Tao; Wang GuoQing; Chang YuJun; Zhang Zhi; Shi HuanZhong; et al.

Title

Nosocomial outbreak of COVID-19 pneumonia in Wuhan, China.

Source

European Respiratory Journal; 2020. 55(6)25 ref.

Publisher

European Respiratory Society

Location of Publisher

Sheffield

Country of Publication

UK

Abstract

Background: The novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), infected over 3300 healthcare workers in early 2020 in China. Little information is known about nosocomial infections of healthcare workers in the initial period. We analysed data from healthcare workers with nosocomial infections in Wuhan Union Hospital (Wuhan, China) and their family members. Methods: We collected and analysed data on exposure history, illness timelines and epidemiological characteristics from 25 healthcare workers with laboratory-confirmed coronavirus disease 2019 (COVID-19) and two healthcare workers in whom COVID-19 was highly suspected, as well as 10 of their family members with COVID-19, between 5 January and 12 February 2020. The demographics and clinical features of the 35 laboratory-confirmed cases were investigated and viral RNA of 12 cases was sequenced and analysed. Results: Nine clusters were found among the patients. All patients showed mild to moderate clinical manifestation and recovered without deterioration. The mean period of incubation was 4.5 days, the mean +/-sd clinical onset serial interval (COSI) was 5.2 +/-3.2 days, and the median virus shedding time was 18.5 days. Complete genomic sequences of 12 different coronavirus

strains demonstrated that the viral structure, with small irrelevant mutations, was stable in the transmission chains and showed remarkable traits of infectious traceability. Conclusions: SARS-CoV-2 can be rapidly transmitted from person to person, regardless of whether they have symptoms, in both hospital settings and social activities, based on the short period of incubation and COSI. The public health service should take practical measures to curb the spread, including isolation of cases, tracing close contacts, and containment of severe epidemic areas. Besides this, healthcare workers should be alert during the epidemic and self-quarantine if self-suspected of infection.

#### Publication Type

Journal article.

<140>

#### Accession Number

20203291672

#### Author

Yu JiuWang; Wang Lu; Bao LiDao

#### Title

Exploring the active compounds of traditional Mongolian medicine in intervention of novel coronavirus (COVID-19) based on molecular docking method.

#### Source

Journal of Functional Foods; 2020. 7141 ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

#### Country of Publication

UK

#### Abstract

Objective: This article intends to use molecular docking technology to find potential inhibitors that can respond to COVID-19 from active compounds in Mongolian medicine. Methods: Mongolian medicine

with anti-inflammatory and antiviral effects is selected from Mongolian medicine prescription preparations. TCMSP, ETCM database and document mining methods were used to collect active compounds. Swiss TargetPrediction and SuperPred server were used to find targets of compounds with smiles number. Drugbank and Genecard database were used to collect antiviral drug targets. Then the above targets were compared and analyzed to screen out antiviral targets of Mongolia medicine. Metascape database platform was used to enrich and analyze the GO (Gene ontology) annotation and KEGG pathway of the targets. In view of the high homology of gene sequences between SARS-CoV-2 S-protein RBD domain and SARS virus, as well as their similarities in pathogenesis and clinical manifestations, we established SARS-CoV-2 S-protein model using Swiss-Model. The ZDOCK protein docking software was applied to dock the S-protein with the human angiotensin ACE2 protein to find out the key amino acids of the binding site. Taking ACE2 as the receptor, the molecular docking between the active ingredients and the target protein was studied by AutoDock molecular docking software. The interaction between ligand and receptor is applied to provide a choice for screening anti-COVID-19 drugs. Results: A total of 253 active components were predicted. Metascape analysis showed that key candidate targets were significantly enriched in multiple pathways related to different toxins. These key candidate targets were mainly derived from phillyrin and chlorogenic acid. Through the protein docking between S-protein and ACE2, it is found that Glu329/Gln325 and Gln42/Asp38 in ACE2 play an important role in the binding process of the two. The results of molecular docking virtual calculation showed that phillyrin and chlorogenic acid could stably combine with Gln325 and Gln42/Asp38 in ACE2, respectively, which hindered the combination between S- protein and ACE2. Conclusion: Phillyrin and chlorogenic acid can effectively prevent the combination of SARS-CoV-2 S-protein and ACE2 at the molecular level. Phillyrin and chlorogenic acid can be used as potential inhibitors of COVID-19 for further research and development.

#### Publication Type

Journal article.

<141>

#### Accession Number

20203295928

#### Author

Rubin, G. D.; Ryerson, C. J.; Haramati, L. B.; Sverzellati, N.; Kanne, J. P.; Raoof, S.; Schluger, N. W.; Volpi, A.; Yim JaeJoon; Martin, I. B. K.; Anderson, D. J.; Kong, C.; Altes, T.; Bush, A.; Desai, S. R.; Goldin, J.; Goo JinMo; Humbert, M.; Inoue, Y.; Kauczor, H. U.; Luo FengMing; Mazzone, P. J.; Prokop, M.; Remy-Jardin, M.; Richeldi, L.; et al.

Title

The role of chest imaging in patient management during the COVID-19 pandemic.

Source

Chest; 2020. 158(1):106-116. 37 ref.

Publisher

American College of Chest Physicians

Location of Publisher

Northbrook

Country of Publication

USA

Abstract

With more than 900,000 confirmed cases worldwide and nearly 50,000 deaths during the first 3 months of 2020, the coronavirus disease 2019 (COVID-19) pandemic has emerged as an unprecedented health care crisis. The spread of COVID-19 has been heterogeneous, resulting in some regions having sporadic transmission and relatively few hospitalized patients with COVID-19 and others having community transmission that has led to overwhelming numbers of severe cases. For these regions, health care delivery has been disrupted and compromised by critical resource constraints in diagnostic testing, hospital beds, ventilators, and health care workers who have fallen ill to the virus exacerbated by shortages of personal protective equipment. Although mild cases mimic common upper respiratory viral infections, respiratory dysfunction becomes the principal source of morbidity and mortality as the disease advances. Thoracic imaging with chest radiography and CT are key tools for pulmonary disease diagnosis and management, but their role in the management of COVID-19 has not been considered within the multivariable context of the severity of respiratory disease, pretest probability, risk factors for disease progression, and critical resource constraints. To address this deficit, a multidisciplinary panel comprised principally of radiologists and pulmonologists from 10 countries with experience managing patients with COVID-19 across a spectrum of health care environments evaluated the utility of imaging within three scenarios representing varying risk factors, community conditions, and resource constraints. Fourteen key questions, corresponding to 11 decision points within the three scenarios and three additional clinical situations, were rated by the panel based on the anticipated value of the information that thoracic imaging would be expected to provide. The results were aggregated, resulting in five main and three additional recommendations intended to guide medical practitioners in the use of chest radiography and CT in the management of COVID-19.

Publication Type

Journal article.

<142>

Accession Number

20203295927

Author

Chen RuChong; Liang WenHua; Jiang Mei; Guan WeiJie; Zhan Chen; Wang Tao; Tang ChunLi; Sang Ling; Liu JiaXing; Ni ZhengYi; Hu Yu; Liu Lei; Shan Hong; Lei ChunLiang; Peng YiXiang; Wei Li; Liu Yong; Hu YaHua; Peng Peng; Wang JianMing; Liu JiYang; Chen Zhong; Li Gang; Zheng ZhiJian; Qiu ShaoQin; et al.

Title

Risk factors of fatal outcome in hospitalized subjects with coronavirus disease 2019 from a nationwide analysis in China.

Source

Chest; 2020. 158(1):97-105. 25 ref.

Publisher

American College of Chest Physicians

Location of Publisher

Northbrook

Country of Publication

USA

Abstract

Background: The novel coronavirus disease 2019 (COVID-19) has become a global health emergency. The cumulative number of new confirmed cases and deaths are still increasing out of China. Independent predicted factors associated with fatal outcomes remain uncertain. Research Question: The goal of the current study was to investigate the potential risk factors associated with fatal outcomes from COVID-19 through a multivariate Cox regression analysis and a nomogram model. Study Design and Methods: A retrospective cohort of 1,590 hospitalized patients with COVID-19 throughout China was established. The prognostic effects of variables, including clinical features and laboratory findings, were analyzed by using Kaplan-Meier methods and a Cox proportional hazards model. A prognostic nomogram was formulated to predict the survival of patients with COVID-19. Results: In this nationwide cohort, nonsurvivors included a higher incidence of elderly people and subjects with coexisting chronic illness, dyspnea, and laboratory abnormalities on admission compared with survivors. Multivariate Cox regression analysis showed that age  $\geq$  75 years (hazard ratio [HR], 7.86; 95% CI, 2.44-25.35), age between 65 and 74 years (HR, 3.43; 95% CI, 1.24-9.5), coronary heart disease (HR, 4.28; 95% CI, 1.14-16.13), cerebrovascular disease (HR, 3.1; 95% CI, 1.07-8.94), dyspnea (HR, 3.96; 95% CI,

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1.42-11), procalcitonin level > 0.5 ng/mL (HR, 8.72; 95% CI, 3.42-22.28), and aspartate aminotransferase level > 40 U/L (HR, 2.2; 95% CI, 1.1-6.73) were independent risk factors associated with fatal outcome. A nomogram was established based on the results of multivariate analysis. The internal bootstrap resampling approach suggested the nomogram has sufficient discriminatory power with a C-index of 0.91 (95% CI, 0.85-0.97). The calibration plots also showed good consistency between the prediction and the observation. Interpretation: The proposed nomogram accurately predicted clinical outcomes of patients with COVID-19 based on individual characteristics. Earlier identification, more intensive surveillance, and appropriate therapy should be considered in patients at high risk.

#### Publication Type

Journal article.

<143>

#### Accession Number

20203285374

#### Author

Banerjee, A.; Czinn, S. J.; Reiter, R. J.; Blanchard, T. G.

#### Title

Crosstalk between endoplasmic reticulum stress and anti-viral activities: a novel therapeutic target for COVID-19.

#### Source

Life Sciences; 2020. 25583 ref.

#### Publisher

Elsevier

#### Location of Publisher

New York

#### Country of Publication

USA

#### Abstract

The outbreak of COVID-19 caused by 2019-nCov/SARS-CoV-2 has become a pandemic with an urgent need for understanding the mechanisms and identifying a treatment. Viral infections including SARS-CoV are associated with increased levels of reactive oxygen species, disturbances of Ca<sup>++</sup> caused by unfolded protein response (UPR) mediated by endoplasmic reticulum (ER) stress and is due to the exploitation of virus's own protein i.e., viroporins into the host cells. Several clinical trials are on-going including testing Remdesivir (anti-viral), Chloroquine and Hydroxychloroquine derivatives (anti-malarial drugs) etc. Unfortunately, each drug has specific limitations. Herein, we review the viral protein involvement to activate ER stress transducers (IRE-1, PERK, ATF-6) and their downstream signals; and evaluate combination therapies for COVID-19 mediated ER stress alterations. Melatonin is an immunoregulator, anti-pyretic, antioxidant, anti-inflammatory and ER stress modulator during viral infections. It enhances protective mechanisms for respiratory tract disorders. Andrographolide, isolated from *Andrographis paniculata*, has versatile biological activities including immunomodulation and determining SARS-CoV-2 binding site. Considering the properties of both compounds in terms of anti-inflammatory, antioxidant, anti-pyrogenic, anti-viral and ER stress modulation and computational approaches revealing andrographolide docks with the SARS-CoV2 binding site, we predict that this combination therapy may have potential utility against COVID-19.

#### Publication Type

Journal article.

<144>

#### Accession Number

20203296448

#### Author

Kostynets, I.; Kostynets, V.; Baranov, V.

#### Title

Pent-up demand effect at the tourist market.

#### Source

Economics & Sociology; 2020. 13(2):279-288. 26 ref.

#### Publisher

Centre of Sociological Research (CSR)

#### Location of Publisher



Ternopil

Country of Publication

Ukraine

Abstract

The article is dedicated to modeling of the effect of the pent-up demand situation at the tourist market caused by the current epidemiological situation in the world. The authors have investigated the current trends at the global travel services market in connection with the COVID-19 outbreak. The article determines that tourism is most sensitive to the crises of epidemiological, political and economic nature. In this regard, the authors analyzed the situation with pent-up demand for tourist services based on the data from the previous periods. To simulate the effect of the pent-up demand situation at the tourist services market, the authors are looking at tourism products in Italy and France, considering the current COVID-19 outbreak in these countries. The authors analyzed the English-language and Russian-language queries "Tours to Italy" and "Journey to Paris" using the Google Trends data and determined the dynamics of search queries over the past five years. The correlation analysis has confirmed that the popularity of searches from potential consumers is closely correlated with the volume of real demand for tourist services.

Publication Type

Journal article.

<145>

Accession Number

20203297652

Author

Zhai Pan; Ding YanBing; Wu Xia; Long JunKe; Zhong YanJun; Li YiMing

Title

The epidemiology, diagnosis and treatment of COVID-19.

Source

International Journal of Antimicrobial Agents; 2020. 55(5)many ref.

Publisher

Elsevier B.V.

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Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

In December 2019, the outbreak of the novel coronavirus disease (COVID-19) in China spread worldwide, becoming an emergency of major international concern. SARS-CoV-2 infection causes clusters of severe respiratory illness similar to severe acute respiratory syndrome coronavirus. Human-to-human transmission via droplets, contaminated hands or surfaces has been described, with incubation times of 2-14 days. Early diagnosis, quarantine, and supportive treatments are essential to cure patients. This paper reviews the literature on all available information about the epidemiology, diagnosis, isolation and treatments of COVID-19. Treatments, including antiviral agents, chloroquine and hydroxychloroquine, corticosteroids, antibodies, convalescent plasma transfusion and vaccines, are discussed in this article. In addition, registered trials investigating treatment options for COVID-19 infection are listed.

Publication Type

Journal article.

<146>

Accession Number

20203291998

Author

El-Jardali, F.; Bou-Karroum, L.; Fadlallah, R.

Title

Amplifying the role of knowledge translation platforms in the COVID-19 pandemic response.

Source

Health Research Policy and Systems; 2020. 18(58):(03 June 2020). 29 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The COVID-19 pandemic presents the worst public health crisis in recent history. The response to the COVID-19 pandemic has been challenged by many factors, including scientific uncertainties, scarcity of relevant research, proliferation of misinformation and fake news, poor access to actionable evidence, time constraints, and weak collaborations among relevant stakeholders. Knowledge translation (KT) platforms, composed of organisations, initiatives and networks supporting evidence-informed policy-making, can play an important role in providing relevant and timely evidence to inform pandemic responses and bridge the gap between science, policy, practice and politics. In this Commentary, we highlight the emerging roles of KT platforms in light of the COVID-19 pandemic. We also reflect on the lessons learned from the efforts of a KT platform in a middle-income country to inform decision-making and practice during the COVID-19 pandemic. The lessons learned can be integrated into strengthening the role, structures and mandates of KT platforms as hubs for trustworthy evidence that can inform policies and practice during public health crises and in promoting their integration and institutionalisation within the policy-making processes.

Publication Type

Journal article.

<147>

Accession Number

20203291911

Author

Ortiz-Brizuela, E.; Villanueva-Reza, M.; Gonzalez-Lara, M. F.; Tamez-Torres, K. M.; Romon-Montes, C. M.; Diaz-Mejia, B. A.; Perez-Garcia, E.; Olivas-Martinez, A.; Rajme-Lopez, S.; Martinez-Guerra, B. A.; De-Leon-Cividanes, N. A.; Fernandez-Garcia, O. A.; Guerrero-Torres, L.; Torres-Gonzalez, L.; Carrera-Patiño, F. A.; Corral-Herrera, E. A.; Hernandez-Alem, A. N.; Tovar-Vargas, M. de los; Serrano-Pinto, Y. G.; Espejo-Ortiz, C. E.; Morales-Ortega, M. de la L.; Lozano-Cruz, A.; Cardenas-Fragoso, J. L.; Vidal-Mayo, J. de J.; Hernandez-Gilsoul, T.; et al.

## Title

Clinical and epidemiological characteristics of patients diagnosed with COVID-19 in a tertiary care center in Mexico City: a prospective cohort study.

## Source

Revista de Investigacion Clinica - Clinical and Translational Investigation; 2020. 72(3):165-177. 31 ref.

## Publisher

Permanyer Mexico

## Location of Publisher

Mexico city

## Country of Publication

Mexico

## Abstract

Background: Regional information regarding the characteristics of patients with coronavirus disease (COVID)-19 is needed for a better understanding of the pandemic. Background: The objective of the study to describe the clinical features of COVID-19 patients diagnosed in a tertiary-care center in Mexico City and to assess differences according to the treatment setting (ambulatory vs. hospital) and to the need of intensive care (IC). Methods: We conducted a prospective cohort, including consecutive patients with COVID-19 from February 26, 2020 to April 11, 2020. Results: We identified 309 patients (140 inpatients and 169 outpatients). The median age was 43 years (interquartile range, 33-54), 59.2% men, and 18.6% healthcare workers (12.3% from our center). The median body mass index (BMI) was 29.00 kg/m<sup>2</sup> and 39.6% had obesity. Compared to outpatients, inpatients were older, had comorbidities, cough, and dyspnea more frequently. Twenty-nine (20.7%) inpatients required treatment in the IC unit (ICU). History of diabetes (type 1 or 2) and abdominal pain were more common in ICU patients compared to non-ICU patients. ICU patients had higher BMIs, higher respiratory rates, and lower room-air capillary oxygen saturations. ICU patients showed a more severe inflammatory response as assessed by white blood cell count, neutrophil and platelet count, C-reactive protein, ferritin, procalcitonin, and albumin levels. By the end of the study period, 65 inpatients had been discharged because of improvement, 70 continued hospitalized, and five had died. Conclusions: Patients with comorbidities, either middle-age obese or elderly complaining of fever, cough, or dyspnea, were more likely to be admitted. At admission, patients with diabetes, high BMI, and clinical or laboratory findings consistent with a severe inflammatory state were more likely to require IC.

## Publication Type

Journal article.

<148>

Accession Number

20203291906

Author

Gómez-Moreno, C.; Hernández-Ruiz, V.; Hernández-Gilsoul, T.; Avila-Funes, J. A.

Title

Clinical decision making in older adults with COVID-19 in developing countries: looking beyond chronological age.

Source

Revista de Investigacion Clinica - Clinical and Translational Investigation; 2020. 72(3):127-134. 28 ref.

Publisher

Permanyer Mexico

Location of Publisher

Mexico city

Country of Publication

Mexico

Abstract

Background: The coronavirus disease 2019 (COVID-19) has been declared a global pandemic. Older adults have been found as a vulnerable group for developing severe forms of disease and increased mortality. Background: The objective of the study was to propose a pathway to assist the decision-making process for hospital resource allocation for older adults with COVID-19 using simple geriatric assessment-based tools. Methods: We reviewed the available literature at this point of the COVID-19 outbreak, focusing in older adult care to extract key recommendations for those health-care professionals who will be treating older adults in the hospital emergency ward (HEW) in developing countries during the COVID-19 pandemic. Results: We listed a series of easy recommendations for non-geriatrician doctors in the HEW and suggested simple tools for hospital resource allocation during critical care evaluation of older adults with COVID-19 in low- and middle-income countries. Conclusions: Age must not be used as the sole criterion for resource allocation among older adults with COVID-19. Simple and efficient tools are available to identify components of the comprehensive geriatric assessment, which could be useful to predict outcomes and provide high-quality care that would fit the particular needs of older adults in resource-limited settings amidst this global pandemic.

Publication Type

<149>

Accession Number

20203291905

Author

Ritwik Ghosh; Dubey, M. J.; Subhankar Chatterjee; Souvik Dubey

Title

Impact of COVID-19 on children: special focus on the psychosocial aspect.

Source

Minerva Pediatrica; 2020. 72(3):226-235. many ref.

Publisher

Edizioni Minerva Medica

Location of Publisher

Torino

Country of Publication

Italy

Abstract

Although medical literature shows that children are minimally susceptible to 2019-Corona virus disease (COVID-19), they are hit the hardest by psychosocial impact of this pandemic. Being quarantined in homes and institutions may impose greater psychological burden than the physical sufferings caused by the virus. School closure, lack of outdoor activity, aberrant dietary and sleeping habits are likely to disrupt children's usual lifestyle and can potentially promote monotony, distress, impatience, annoyance and varied neuropsychiatric manifestations. Incidences of domestic violence, child abuse, adulterated online contents are on the rise. Children of single parent and frontline workers suffer unique problems. The children from marginalized communities are particularly susceptible to the infection and may suffer from extended ill-consequences of this pandemic, such as child labor, child trafficking, child marriage, sexual exploitation and death etc. Parents, pediatricians, psychologists, social workers, hospital authorities, government and non-governmental organizations have important roles to play to mitigate the psychosocial ill-effects of COVID-19 on children and adolescents. To provide the basic amenities,

social security, medical care, and to minimize the educational inequities among the children of the different strata of the society are foremost priorities.

Publication Type

Journal article.

<150>

Accession Number

20203271430

Author

Zhao Fang; Fan Qian; Zhang Wei; Li Bo; Li DeJia; Zhang Jian

Title

Association between ABO blood group system and COVID-19 susceptibility in Wuhan.

Source

Frontiers in Cellular and Infection Microbiology; 2019. 9(November)

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

Background: The ABO blood group system has been associated with multiple infectious diseases, including hepatitis B, dengue haemorrhagic fever and so on. Coronavirus disease 2019 (COVID-19) is a new respiratory infectious disease and the relationship between COVID-19 and ABO blood group system needs to be explored urgently. Methods: A hospital-based case-control study was conducted at Zhongnan Hospital of Wuhan University from 1 January 2020 to 5 March 2020. A total of 105 COVID-19 cases and 103 controls were included. The blood group frequency was tested with the chi-square statistic, and odds ratios (ORs) with 95% confidence intervals (CIs) were calculated between cases and controls. In addition, according to gender, the studied population was divided into two subgroups, and

we assessed the association between cases and controls by gender. Finally, considering lymphopenia as a feature of COVID-19, the relationship between the ABO blood group and the lymphocyte count was determined in case samples. Results: The frequencies of blood types A, B, AB and O were 42.8%, 26.7%, 8.57% and 21.9%, respectively, in the case group. Association analysis between the ABO blood group and COVID-19 indicated that there was a statistically significant difference for blood type A ( $P=0.04$ ,  $OR=1.33$ ,  $95\% CI=1.02-1.73$ ) but not for blood types B, AB or O ( $P=0.48$ ,  $OR=0.90$ ,  $95\% CI=0.66-1.23$ ;  $P=0.61$ ,  $OR=0.88$ ,  $95\% CI=0.53-1.46$ ; and  $P=0.23$ ,  $OR=0.82$ ,  $95\% CI=0.58-1.15$ , respectively). An analysis stratified by gender revealed that the association was highly significant between blood type A in the female subgroup ( $P=0.02$ ,  $OR=1.56$ ,  $95\% CI=1.08-2.27$ ) but not in the male subgroup ( $P=0.51$ ,  $OR=1.14$ ,  $95\% CI=0.78-1.67$ ). The average level of lymphocyte count was the lowest with blood type A in patients, however, compared with other blood types, there was still no significant statistical difference. Conclusions: Our findings provide epidemiological evidence that females with blood type A are susceptible to COVID-19. However, these research results need to be validated in future studies.

#### Publication Type

Journal article.

<151>

#### Accession Number

20203287585

#### Author

Yuan ZheMing; Xiao Yi; Dai ZhiJun; Huang JianJun; Chen Yuan

#### Title

Modelling the effects of Wuhan's lockdown during COVID-19, China.

#### Source

Bulletin of the World Health Organization; 2020. 98(7):484-494.

#### Publisher

World Health Organization

#### Location of Publisher

Geneva

#### Country of Publication



Switzerland

## Abstract

**Objective:** To design a simple model to assess the effectiveness of measures to prevent the spread of coronavirus disease 2019 (COVID-19) to different regions of mainland China. **Methods:** We extracted data on population movements from an internet company data set and the numbers of confirmed cases of COVID-19 from government sources. On 23 January 2020 all travel in and out of the city of Wuhan was prohibited to control the spread of the disease. We modelled two key factors affecting the cumulative number of COVID-19 cases in regions outside Wuhan by 1 March 2020: (i) the total the number of people leaving Wuhan during 20-26 January 2020; and (ii) the number of seed cases from Wuhan before 19 January 2020, represented by the cumulative number of confirmed cases on 29 January 2020. We constructed a regression model to predict the cumulative number of cases in non-Wuhan regions in three assumed epidemic control scenarios. **Findings:** Delaying the start date of control measures by only 3 days would have increased the estimated 30 699 confirmed cases of COVID-19 by 1 March 2020 in regions outside Wuhan by 34.6% (to 41 330 people). Advancing controls by 3 days would reduce infections by 30.8% (to 21 235 people) with basic control measures or 48.6% (to 15 796 people) with strict control measures. Based on standard residual values from the model, we were able to rank regions which were most effective in controlling the epidemic. **Conclusion:** The control measures in Wuhan combined with nationwide traffic restrictions and self-isolation reduced the ongoing spread of COVID-19 across China.

## Publication Type

Journal article.

<152>

## Accession Number

20203284447

## Author

Nagano, H.; Oliveira, J. A. P. de; Barros, A. K.; Costa Junior, A. da S.

## Title

The 'Heart Kuznets Curve'? Understanding the relations between economic development and cardiac conditions.

## Source

World Development (Oxford); 2020. 132many ref.

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Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

As countries turn wealthier, some health indicators, such as child mortality, seem to have well-defined trends. However, others, including cardiovascular conditions, do not follow clear linear patterns of change with economic development. Abnormal blood pressure is a serious health risk factor with consequences for population growth and longevity as well as public and private expenditure in health care and labor productivity. This also increases the risk of the population in certain pandemics, such as COVID-19. To determine the correlation of income and blood pressure, we analyzed time-series for the mean systolic blood pressure (SBP) of men's population (mmHg) and nominal Gross Domestic Product per capita (GDPPC) for 136 countries from 1980 to 2008 using regression and statistical analysis by Pearson's correlation ( $r$ ). Our study finds a trend similar to an inverted-U shaped curve, or a 'Heart Kuznets Curve'. There is a positive correlation (increase GDPPC, increase SBP) in low-income countries, and a negative correlation in high-income countries (increase GDPPC, decrease SBP). As country income rises people tend to change their diets and habits and have better access to health services and education, which affects blood pressure. However, the latter two may not offset the rise in blood pressure until countries reach a certain income. Investing early in health education and preventive health care could avoid the sharp increase in blood pressure as countries develop, and therefore, avoiding the 'Heart Kuznets Curve' and its economic and human impacts.

Publication Type

Journal article.

<153>

Accession Number

20203285633

Author

Snyman, L. C.; Molokoane, F.; Seopela, L.; Mopane, N.; Mojela, M.

## Title

First results of universal SARS-CoV-2 virus testing of asymptomatic pregnant patients presenting for antenatal care at the kalafong provincial tertiary hospital.

## Source

Obstetrics and Gynaecology Forum; 2020. 30(2):19-21.

## Publisher

In-House Publications

## Location of Publisher

Craighall

## Country of Publication

South Africa

## Abstract

**Background:** The current COVID-19 pandemic caused by the SARS-CoV-2 virus has reached the stage of community spread in South Africa. Asymptomatic carriers have been reported amongst pregnant women. Against this background, a strategy of universal testing of all patients visiting facilities for antenatal care should be considered, as this information will allow proper planning of obstetric services as well as reducing risk to health care workers and patients. **Methods:** Asymptomatic pregnant women visiting Kalafong Provincial Tertiary Hospital in Atteridgeville, Pretoria, for antenatal care were randomly selected for SARS-CoV-2 PCR testing. **Results:** We report the results of the first 67 patients who were tested. Their mean age was 33.3 years (SD = 6.44), and 34.3% were HIV infected. Sixteen patients (32.8%) had comorbidities such as diabetes mellitus type II/gestational diabetes and hypertension. All 67 women tested negative for SARS-CoV-2 infection. **Conclusion:** The asymptomatic carrier status at this point in time is still zero, reflecting the early stage of the epidemic in Tshawane at the time of testing. Universal testing of this group of patients should continue, as early identification of asymptomatic carriers in pregnant women is essential for the provision of safe obstetric care, especially against the background of the presence of significant comorbidities in this population group.

## Publication Type

Journal article.

<154>

## Accession Number

Author

Aquino, E. M. L.; Silveira, I. H.; Pescarini, J. M.; Aquino, R.; Souza-Filho, J. A. de; Rocha, A. dos S.; Ferreira, A.; Victor, A.; Teixeira, C.; Machado, D. B.; Paixão, E.; Alves, F. J. O.; Pilecco, F.; Menezes, G.; Gabrielli, L.; Leite, L.; Almeida, M. da C. C. de; Ortelan, N.; Fernandes, Q. H. R. F.; Ortiz, R. J. F.; Palmeira, R. N.; Pinto Junior, E. P.; Araújo, E.; Souza, L. E. P. F. de; Netto, M. B.; et al.

Title

Social distancing measures to control the COVID-19 pandemic: potential impacts and challenges in Brazil. (Special Issue: COVID-19.)

Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2423-2446. 47 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 has challenged researchers and policy makers to identify public safety measures for preventing the collapse of healthcare systems and reducing deaths. This narrative review summarizes the available evidence on the impact of social distancing measures on the epidemic and discusses the implementation of these measures in Brazil. Articles on the effect of social distancing on COVID-19 were selected from the PubMed, medRxiv and bioRxiv databases. Federal and state legislation was analyzed to summarize the strategies implemented in Brazil. Social distancing measures adopted by the population appear effective, particularly when implemented in conjunction with the isolation of cases and quarantining of contacts. Therefore, social distancing measures, and social protection policies to guarantee the sustainability of these measures, should be implemented. To control COVID-19 in Brazil, it is also crucial that epidemiological monitoring is strengthened at all three levels of the Brazilian National Health System (SUS). This includes evaluating and using supplementary indicators to monitor the progression of the pandemic and the effect of the control measures, increasing testing capacity, and making disaggregated notifications and testing results transparent and broadly available.

Publication Type

Journal article.

<155>

Accession Number

20203279342

Author

Maha Saber-Ayad; Saleh, M. A.; Eman Abu-Gharbieh

Title

The rationale for potential pharmacotherapy of COVID-19.

Source

Pharmaceuticals; 2020. 13(5)141 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

On 11 March 2020, the coronavirus disease (COVID-19) was defined by the World Health Organization as a pandemic. Severe acute respiratory syndrome-2 (SARS-CoV-2) is the newly evolving human coronavirus infection that causes COVID-19, and it first appeared in Wuhan, China in December 2019 and spread rapidly all over the world. COVID-19 is being increasingly investigated through virology, epidemiology, and clinical management strategies. There is currently no established consensus on the standard of care in the pharmacological treatment of COVID-19 patients. However, certain medications suggested for other diseases have been shown to be potentially effective for treating this infection, though there has yet to be clear evidence. Therapies include new agents that are currently tested in several clinical trials, in addition to other medications that have been repurposed as antiviral and immune-modulating therapies. Previous high-morbidity human coronavirus epidemics such as the 2003 SARS-CoV and the 2012 Middle East respiratory syndrome coronavirus (MERS-CoV) prompted the identification of compounds that could theoretically be active against the emerging coronavirus SARS-CoV-2. Moreover, advances in molecular biology techniques and computational analysis have allowed for the better recognition of the virus structure and the quicker screening of chemical libraries to suggest potential therapies. This review aims to summarize rationalized pharmacotherapy considerations in COVID-19 patients in order to serve as a tool for health care professionals at the

forefront of clinical care during this pandemic. All the reviewed therapies require either additional drug development or randomized large-scale clinical trials to be justified for clinical use.

Publication Type

Journal article.

<156>

Accession Number

20203279317

Author

Hossain, S. T.

Title

Impacts of COVID-19 on the agri-food sector: food security policies of Asian Productivity Organization members.

Source

Journal of Agricultural Sciences (Sri Lanka); 2020. 15(2):116-132. 36 ref.

Publisher

Sabaragamuwa University

Location of Publisher

Belihuloya

Country of Publication

Sri Lanka

Abstract

Purpose: Despite demographic differences, agriculture is a major source of socioeconomic stability among APO member economies. This report highlights potential risks faced by their agri-food sectors due to the COVID-19 pandemic and outlines the responses and policy actions each member is taking to address threats to food security and prevent hunger. Research Method: Publicly available information was synthesized, and insights from 19 individuals working in agriculture or agri-food-related areas in the public or private sectors or academia in APO member countries were obtained. Findings: Imminent, medium- and long-term food security challenges due to COVID-19 vary among APO member countries.

However, through the implementation of key policies, many stress the need for critical agricultural inputs, such as fertilizers and safe, quality seeds, to meet seasonal crop calendars. The longer COVID-19 containment measures stay in place, the more challenging the recovery process will be for ensuring smooth food production, accessibility to staple food and nutrition and trade among countries.

Originality/Value: Provides consolidated insight into policies and actions taken by APO member economies to mitigate the impacts of COVID-19 on food security and the agri-food sector.

#### Publication Type

Journal article.

<157>

#### Accession Number

20203275584

#### Author

Iddir, M.; Brito, A.; Dingeo, G.; Fernandez Campo, S. S. del; Samouda, H.; Frano, M. R. la; Bohn, T.

#### Title

Strengthening the immune system and reducing inflammation and oxidative stress through diet and nutrition: considerations during the COVID-19 crisis.

#### Source

Nutrients; 2020. 12(6)366 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Switzerland

#### Abstract

The coronavirus-disease 2019 (COVID-19) was announced as a global pandemic by the World Health Organization. Challenges arise concerning how to optimally support the immune system in the general population, especially under self-confinement. An optimal immune response depends on an adequate

diet and nutrition in order to keep infection at bay. For example, sufficient protein intake is crucial for optimal antibody production. Low micronutrient status, such as of vitamin A or zinc, has been associated with increased infection risk. Frequently, poor nutrient status is associated with inflammation and oxidative stress, which in turn can impact the immune system. Dietary constituents with especially high anti-inflammatory and antioxidant capacity include vitamin C, vitamin E, and phytochemicals such as carotenoids and polyphenols. Several of these can interact with transcription factors such as NF- $\kappa$ B and Nrf-2, related to anti-inflammatory and antioxidant effects, respectively. Vitamin D in particular may perturb viral cellular infection via interacting with cell entry receptors (angiotensin converting enzyme 2), ACE2. Dietary fiber, fermented by the gut microbiota into short-chain fatty acids, has also been shown to produce anti-inflammatory effects. In this review, we highlight the importance of an optimal status of relevant nutrients to effectively reduce inflammation and oxidative stress, thereby strengthening the immune system during the COVID-19 crisis.

Publication Type

Journal article.

<158>

Accession Number

20203275573

Author

Wolfson, J. A.; Leung, C. W.

Title

Food insecurity and COVID-19: disparities in early effects for US adults.

Source

Nutrients; 2020. 12(6)38 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland



## Abstract

The COVID-19 pandemic has dramatically increased food insecurity in the United States (US). The objective of this study was to understand the early effects of the COVID-19 pandemic among low-income adults in the US as social distancing measures began to be implemented. On 19-24 March 2020 we fielded a national, web-based survey (53% response rate) among adults with <250% of the federal poverty line in the US (N = 1478). Measures included household food security status and COVID-19-related basic needs challenges. Overall, 36% of low-income adults in the US were food secure, 20% had marginal food security, and 44% were food insecure. Less than one in five (18.8%) of adults with very low food security reported being able to comply with public health recommendations to purchase two weeks of food at a time. For every basic needs challenge, food-insecure adults were significantly more likely to report facing that challenge, with a clear gradient effect based on severity of food security. The short-term effects of the COVID-19 pandemic are magnifying existing disparities and disproportionately affecting low-income, food-insecure households that already struggle to meet basic needs. A robust, comprehensive policy response is needed to mitigate food insecurity as the pandemic progresses.

## Publication Type

Journal article.

<159>

## Accession Number

20203277977

## Author

Chang ChiaLin; McAleer, M.

## Title

Alternative global health security indexes for risk analysis of COVID-19.

## Source

International Journal of Environmental Research and Public Health; 2020. 17(9)15 ref.

## Publisher

MDPI AG

## Location of Publisher

Basel

## Country of Publication

Switzerland

## Abstract

Given the volume of research and discussion on the health, medical, economic, financial, political, and travel advisory aspects of the SARS-CoV-2 virus that causes the COVID-19 disease, it is essential to enquire if an outbreak of the epidemic might have been anticipated, given the well-documented history of SARS and MERS, among other infectious diseases. If various issues directly related to health security risks could have been predicted accurately, public health and medical contingency plans might have been prepared and activated in advance of an epidemic such as COVID-19. This paper evaluates an important source of health security, the Global Health Security Index (2019), which provided data before the discovery of COVID-19 in December 2019. Therefore, it is possible to evaluate how countries might have been prepared for a global epidemic, or pandemic, and acted accordingly in an effective and timely manner. The GHS index numerical scores are calculated as the arithmetic (AM), geometric (GM), and harmonic (HM) means of six categories, where AM uses equal weights for each category. The GHS Index scores are regressed on the numerical score rankings of the six categories to check if the use of equal weights of 0.167 in the calculation of the GHS Index using AM is justified, with GM and HM providing a check of the robustness of the arithmetic mean. The highest weights are determined to be around 0.244-0.246, while the lowest weights are around 0.186-0.187 for AM. The ordinal GHS Index is regressed on the ordinal rankings of the six categories to check for the optimal weights in the calculation of the ordinal Global Health Security (GHS) Index, where the highest weight is 0.368, while the lowest is 0.142, so the estimated results are wider apart than for the numerical score rankings. Overall, Rapid Response and Detection and Reporting have the largest impacts on the GHS Index score, whereas Risk Environment and Prevention have the smallest effects. The quantitative and qualitative results are different when GM and HM are used.

## Publication Type

Journal article.

<160>

## Accession Number

20203277969

## Author

Suleiman, A.; Bsisu, I.; Guzu, H.; Santarisi, A.; Alsatari, M.; Abbad, A.; Jaber, A.; Harb, T.; Abuhejleh, A.; Nadi, N.; Aloweidi, A.; Almustafa, M.

Title

Preparedness of frontline doctors in Jordan healthcare facilities to COVID-19 outbreak.

Source

International Journal of Environmental Research and Public Health; 2020. 17(9)31 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The number of COVID-19 (Coronavirus Disease of 2019) cases in Jordan is rising rapidly. A serious threat to the healthcare system appears on the horizon. Our study aims to evaluate preparedness of Jordanian frontline doctors to the worsening scenario. It has a questionnaire-based cross-sectional structure. The questionnaire was designed to evaluate preparedness according to knowledge about virus transmission and protective measures, adherence to protection guidelines, and psychological impacts affecting doctors. Institutional factors affecting doctors' readiness like adopting approach protocols and making protection equipment available were investigated; 308 doctors from different healthcare facilities participated (response rate: 53.9%). Approximately 25% of doctors ( $n = 77$ ) previously took care of COVID-19 patients, and 173 (56.2%) have institutional COVID-19 approach protocols. Only 57 doctors (18.5%) reported all PPE (Personal Protective Equipment) available. The self-reported score of preparedness to deal with COVID-19 patients was  $4.9 \pm 2.4$ . Doctors having institutional protocols for dealing with COVID-19 cases and those with sustained availability of PPE reported higher scores of preparedness ( $5.5 \pm 2.3$  and  $6.2 \pm 2.1$  with  $p < 0.001$ , respectively). Correlations with knowledge score, adherence to PPE score, and psychological impacts were investigated. The study revealed multiple challenges and insufficiencies that can affect frontline doctors' preparedness. Policy makers are urged to take these findings into consideration and to act promptly.

Publication Type

Journal article.

<161>

Accession Number

20203277942

Author

Shangguan ZiHeng; Wang YaoLin [Wang, Y. L. M.]; Sun Wen

Title

What caused the outbreak of COVID-19 in China: from the perspective of crisis management.

Source

International Journal of Environmental Research and Public Health; 2020. 17(9)61 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Since the first known case of a COVID-19 infected patient in Wuhan, China on 8 December 2019, COVID-19 has spread to more than 200 countries, causing a worldwide public health crisis. The existing literature fails to examine what caused this sudden outbreak from a crisis management perspective. This article attempts to fill this research gap through analysis of big data, officially released information and other social media sources to understand the root cause of the crisis as it relates to China's current management system and public health policy. The article draws the following conclusions: firstly, strict government control over information was the main reason for the early silencing of media announcements, which directly caused most people to be unprepared and unaware of COVID-19. Secondly, a choice between addressing a virus with an unknown magnitude and nature, and mitigating known public panic during a politically and culturally sensitive time, lead to falsehood and concealment. Thirdly, the weak autonomous management power of local public health management departments is not conducive for providing a timely response to the crisis. Finally, the privatization of many state-owned hospitals led to the unavailability of public health medical resources to serve affected patients in the Wuhan and Hubei Province. This article suggests that China should adopt a Singaporean-style public health crisis information management system to ensure information disclosure and information symmetry and should use it to monitor public health crises in real time. In addition, the central government should adopt the territorial administration model of a public health crisis and increase investment in public health in China.

Publication Type

Journal article.

<162>

Accession Number

20203277933

Author

Liu JuiYao; Chen TzengJi; Hwang ShinnJang

Title

Analysis of imported cases of COVID-19 in Taiwan: a nationwide study.

Source

International Journal of Environmental Research and Public Health; 2020. 17(9)23 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

In the early stages of the 2019 novel coronavirus disease (COVID-19) pandemic, containment of disease importation from epidemic areas was essential for outbreak control. This study is based on publicly accessible data on confirmed COVID-19 cases in Taiwan extracted from the Taiwan Centers for Disease Control website. We analysed the characteristics, infection source, symptom presentation, and route of identification of the 321 imported cases that were identified from 21 January to 6 April 2020. They were mostly returned Taiwanese citizens who had travelled to one or more of 37 countries for tourism, business, work, or study. Half of these cases developed symptoms before arrival, most of the remainder developed symptoms 1-13 days (mean 4.0 days) after arrival, and 3.4% never developed symptoms. Three-quarters of the cases had respiratory symptoms, 44.9% had fever, 13.1% lost smell or taste, and 7.2% had diarrhoea. Body temperature and symptom screening at airports identified 32.7% of the cases. Of the remainder, 27.7% were identified during home quarantining, 16.2% were identified via contact tracing, and 23.4% were reported by hospitals. Under the strict enforcement of these measures,

the incidence of locally acquired COVID-19 cases in Taiwan remains sporadic. In conclusion, proactive border control measures are effective for preventing community transmission of this disease.

Publication Type

Journal article.

<163>

Accession Number

20203283599

Author

Korstanje, M. E.

Title

The crisis of tourism research and COVID-19.

Source

International Journal of Safety and Security in Tourism/Hospitality; 2020. (21)11 ref.

Publisher

Centre for Business Review and Studies (CBRS)

Location of Publisher

Buenos Aires

Country of Publication

Argentina

Abstract

The present commentary pieces centers on the crisis the tourism industry faces today in view of the advance of COVID-19 as well as the consequences on the tourism research. The piece exerts a radical view on the economic-based paradigm laying the foundations to a new understanding of tourism epistemology. The economic based paradigm focused on the tourist as the only agent capable of providing valuable information but how can we study tourism in a world without tourism? The present piece explores the limitations and problems of tourism research when it embraces a managerial perspective pushing other methods and voices to a peripheral position.

Publication Type

Journal article.

<164>

Accession Number

20203280478

Author

Mendez-Dominguez, N.; Alvarez-Baeza, A.; Carrillo, G.

Title

Demographic and health indicators in correlation to interstate variability of incidence, confirmation, hospitalization, and lethality in Mexico: preliminary analysis from imported and community acquired cases during COVID-19 outbreak.

Source

International Journal of Environmental Research and Public Health; 2020. 17(12)29 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

This study's objective is to analyze the incidence, lethality, hospitalization, and confirmation of COVID-19 cases in Mexico. Sentinel surveillance for COVID-19 cases in Mexico began after the confirmation of the first patient with community transmission. Methods: This epidemiologic, cross-sectional study includes all clinically suspected, and laboratory-confirmed cases nationwide from the beginning of the outbreak to 21 April 2020. State-cluster demographic data and health indicators were analyzed in reference to epidemiologic measures, with logistic regressions for the dependent variables of incidence, confirmation, and lethality. Results: The national incidence was 13.89/100,000 inhabitants with a 6.52% overall lethality and a confirmed-case mortality of 11.1%. The incidence variation significantly correlated

with migration, but not urbanization. Pediatric patients were less prone to be tested OR = -3.92, while geriatric individuals were a priority. State lethality positively correlated with the proportion of the population assisted at public hospitals and correlated inversely to the number of hospitals and clinics in the state. Conclusions: Migration strongly correlated with incidence; elderly patients had lower odds of being hospitalized but were likely to die. Patients aged <15 were less prone to be laboratory-confirmed. Case confirmation was not performed in all hospitalized patients, but 72.15% of hospitalized patients had favorable outcomes to date.

#### Publication Type

Journal article.

<165>

#### Accession Number

20203280458

#### Author

Suso-Ribera, C.; Mart&iacute;n-Brufau, R.

#### Title

How much support is there for the recommendations made to the general population during confinement? A study during the first three days of the COVID-19 quarantine in Spain.

#### Source

International Journal of Environmental Research and Public Health; 2020. 17(12)26 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Switzerland

#### Abstract

Background: Recommendations on lifestyles during quarantine have been proposed by researchers and institutions since the COVID-19 crisis emerged. However, most of these have never been tested under



real quarantine situations or derive from older investigations conducted mostly in China and Canada in the face of infections other than COVID-19. The present study aimed at exploring the relationship between a comprehensive set of recommended lifestyles, socio-demographic, and personality variables and mood during the first stages of quarantine. Methods: A virtual snow-ball recollection technique was used to disseminate the survey across the general population in Spain starting the first day of mandatory quarantine (15 March 2020) until three days later (17 March). In total, 2683 Spanish adults (mean age = 34.86 years, SD = 13.74 years; 77.7% women) from the general population completed measures on socio-demographic, COVID-related, behavioral, personality/cognitive, and mood characteristics. Results: In the present study, depression and anger were higher than levels reported in a previous investigation before the COVID-19 crisis, while vigor, friendliness, and fatigue were lower. Anxiety levels were comparable. The expected direction of associations was confirmed for the majority of predictors. However, effect sizes were generally small and only a subset of them correlated to most outcomes. Intolerance of unpleasant emotions, neuroticism, and, to a lesser extent, agreeableness, sleep quality, young age, and time spent Internet surfing were the most robust and strongest correlates of mood states. Conclusions: Some recommended lifestyles (i.e., maintaining good quality of sleep and reducing Internet surfing) might be more important than others during the first days of quarantine. Promoting tolerance to unpleasant emotions (e.g., through online, self-managed programs) might also be of utmost importance. So far, recommendations have been made in general, but certain subgroups (e.g., certain personality profiles and young adults) might be especially vulnerable and should receive more attention.

#### Publication Type

Journal article.

<166>

#### Accession Number

20203280450

#### Author

Wang Qian; Zhang TianTian; Zhu HuanHuan; Wang Ying; Liu Xin; Bai Ge; Dai RuiMing; Zhou Ping; Luo Li

#### Title

Characteristics of and public health emergency responses to COVID-19 and H1N1 outbreaks: a case-comparison study.

#### Source

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Background: Recently, the novel coronavirus disease (COVID-19) has already spread rapidly as a global pandemic, just like the H1N1 swine influenza in 2009. Evidences have indicated that the efficiency of emergency response was considered crucial to curb the spread of the emerging infectious disease. However, studies of COVID-19 on this topic are relatively few. Methods: A qualitative comparative study was conducted to compare the timeline of emergency responses to H1N1 (2009) and COVID-19, by using a set of six key time nodes selected from international literature. Besides, we also explored the spread speed and peak time of COVID-19 and H1N1 swine influenza by comparing the confirmed cases in the same time interval. Results: The government's entire emergency responses to the epidemic, H1N1 swine influenza (2009) completed in 28 days, and COVID-19 (2019) completed in 46 days. Emergency responses speed for H1N1 was 18 days faster. As for the epidemic spread speed, the peak time of H1N1 came about 4 weeks later than that of COVID-19, and the H1N1 curve in America was flatter than COVID-19 in China within the first four months after the disease emerged. Conclusions: The speed of the emergency responses to H1N1 was faster than COVID-19, which might be an important influential factor for slowing down the arrival of the peak time at the beginning of the epidemic. Although COVID-19 in China is coming to an end, the government should improve the public health emergency system, in order to control the spread of the epidemic and lessen the adverse social effects in possible future outbreaks.

Publication Type

Journal article.

<167>

Accession Number

20203280444

Author

Chen XueWei; Chen HongLiang

Title

Differences in preventive behaviors of COVID-19 between urban and rural residents: lessons learned from a cross-sectional study in China.

Source

International Journal of Environmental Research and Public Health; 2020. 17(12)67 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

**Purpose:** The purpose of this study is to examine the differences in preventive behaviors of COVID-19 between urban and rural residents, as well as identify the factors that might contribute to such differences. **Methods:** Our online survey included 1591 participants from 31 provinces of China with 87% urban and 13% rural residents. We performed multiple linear regressions and path analysis to examine the relationship between rural status and behavioral intention, attitude, subjective norms, information appraisal, knowledge, variety of information source use, and preventive behaviors against COVID-19. **Findings:** Compared with urban residents, rural residents were less likely to perform preventive behaviors, more likely to hold a negative attitude toward the effectiveness of performing preventive behaviors, and more likely to have lower levels of information appraisal skills. We identified information appraisal as a significant factor that might contribute to the rural/urban differences in preventive behaviors against COVID-19 through attitude, subjective norms, and intention. We found no rural/urban differences in behavioral intention, subjective norms, knowledge about preventive behaviors, or the variety of interpersonal/media source use. **Conclusions:** As the first wave of the pandemic inundated urban areas, the current media coverage about COVID-19 prevention may not fully satisfy the specific needs of rural populations. Thus, rural residents were less likely to engage in a thoughtful process of information appraisal and adopt the appropriate preventive measures. Tailoring health messages to meet rural populations' unique needs can be an effective strategy to promote preventive health behaviors against COVID-19.

Publication Type

Journal article.

<168>

Accession Number

20203280442

Author

Maarefvand, M.; Hosseinzadeh, S.; Farmani, O.; Farahani, A. S.; Khubchandani, J.

Title

Coronavirus outbreak and stress in Iranians.

Source

International Journal of Environmental Research and Public Health; 2020. 17(12)34 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Iran has faced one of the worst COVID-19 outbreaks in the world, and no studies to date have examined COVID-19-related stress in the general Iranian population. In this first population-based study, a web-based survey was conducted during the peak of the outbreak to assess stress and its correlates in the Iranian population. A 54-item, valid, and reliable questionnaire, including items on demographic characteristics and past medical history, stress levels, awareness about signs and symptoms of COVID-19, knowledge about at-risk groups and prevention methods, knowledge about transmission methods, trust in sources of information, and availability of facemasks and sanitizers, was deployed via social and mass media networks. A total of 3787 Iranians participated in the study where the majority of the participants were females (67.4%), employed (56.1%), from developed provinces (81.6%), without chronic diseases (66.6%), and with  $\geq 13$  years of formal education (87.9%). The mean age of study participants was 34.9 years (range = 12-73), and the average stress score was 3.33 (SD =  $\pm 1.02$ ). Stress score was significantly higher for females, those who were 30-39 years old, housewives, those with chronic diseases, individuals who were aware that there is no vaccine to prevent COVID-19, those who could not get facemasks or sanitizers, and individuals with higher knowledge about at-risk groups ( $p < 0.05$ ). There was a significant correlation of stress scores with knowledge about prevention methods for COVID-19 ( $r = 0.21$ ,  $p = 0.01$ ) and trust in sources of information about

COVID-19 ( $r = -0.18$ ,  $p = 0.01$ ). All of the predictors, except knowledge of two important at-risk groups and education, had a significant effect on stress scores based on a multivariate regression model. The COVID-19 outbreak could increase stress among all population groups, with certain groups at higher risk. In the high-risk groups and based on experience with previous pandemics, interventions are needed to prevent long-term psychological effects. Professional support and family-centered programs should be a part of pandemic mitigation-related policymaking and public health practices.

Publication Type

Journal article.

<169>

Accession Number

20203280433

Author

Kwon ChanYoung; Kwak HuiYong; Kim JongWoo

Title

Using mind-body modalities via telemedicine during the COVID-19 crisis: cases in the Republic of Korea.

Source

International Journal of Environmental Research and Public Health; 2020. 17(12)24 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The coronavirus disease 2019 (COVID-19) pandemic affected the world, and its deleterious effects on human domestic life, society, economics, and especially on human mental health are expected to continue. Mental health experts highlighted health issues this pandemic may cause, such as depression,

anxiety, obsessive compulsive disorder, and post-traumatic stress disorder. Mind-body intervention, such as mindfulness meditation, has accumulated sufficient empirical evidence supporting the efficacy in improving human mental health states and the use for this purpose has been increasing. Notably, some of these interventions have already been tried in the form of telemedicine or eHealth. Korea, located adjacent to China, was exposed to COVID-19 from a relatively early stage, and today it is evaluated to have been successful in controlling this disease. "The COVID-19 telemedicine center of Korean medicine" has treated more than 20% of the confirmed COVID-19 patients in Korea with telemedicine since 9 March 2020. The center used telemedicine and mind-body modalities (including mindfulness meditation) to improve the mental health of patients diagnosed with COVID-19. In this paper, the telemedicine manual is introduced to provide insights into the development of mental health interventions for COVID-19 and other large-scale disasters in the upcoming new-normal era.

#### Publication Type

Journal article.

<170>

#### Accession Number

20203280425

#### Author

Li JianNan; Liang WenQi; Yuan BoCong; Zeng GuoJun

#### Title

Internalized stigmatization, social support, and individual mental health problems in the public health crisis.

#### Source

International Journal of Environmental Research and Public Health; 2020. 17(12)44 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Switzerland

## Abstract

This study investigates the relationship between internalized stigmatization brought on by epicenter travel experiences and mental health problems (including anxiety, depression, and shame) during the period of the novel coronavirus disease emergency in China. The cross-sectional data were collected using the time-lag design to avoid the common method bias as much as possible. Regression results using structural equation modeling show that the internalized stigmatization of epicenter travel experiences may have positive relationships with mental health problems (i.e., anxiety, depression, and shame), and such relationships can be moderated by social support. Specifically, the positive relationships between internalized stigmatization and mental health problems are buffered/strengthened when social support is at a high/low level. The findings of this study suggest that, in this epidemic, people who have epicenter travel experience could be affected by internalized stigmatization, no matter whether they have ever got infected.

## Publication Type

Journal article.

<171>

## Accession Number

20203280410

## Author

Su Yue; Xue Jia; Liu XiaoQian; Wu PeiJing; Chen JunXiang; Chen Chen; Liu TianLi; Gong WeiGang; Zhu TingShao

## Title

Examining the impact of COVID-19 lockdown in Wuhan and Lombardy: a psycholinguistic analysis on Weibo and Twitter.

## Source

International Journal of Environmental Research and Public Health; 2020. 17(12)46 ref.

## Publisher

MDPI AG

## Location of Publisher

Basel

## Country of Publication

Switzerland

## Abstract

Many countries are taking strict quarantine policies to prevent the rapid spread of COVID-19 (Corona Virus Disease 2019) around the world, such as city lockdown. Cities in China and Italy were locked down in the early stage of the pandemic. The present study aims to examine and compare the impact of COVID-19 lockdown on individuals' psychological states in China and Italy. We achieved the aim by (1) sampling Weibo users (geo-location = Wuhan, China) and Twitter users (geo-location = Lombardy, Italy); (2) fetching all the users' published posts two weeks before and after the lockdown in each region (e.g., the lockdown date of Wuhan was 23 January 2020); (3) extracting the psycholinguistic features of these posts using the Simplified Chinese and Italian version of Language Inquiry and Word Count (LIWC) dictionary; and (4) conducting Wilcoxon tests to examine the changes in the psycholinguistic characteristics of the posts before and after the lockdown in Wuhan and Lombardy, respectively. Results showed that individuals focused more on "home", and expressed a higher level of cognitive process after a lockdown in both Wuhan and Lombardy. Meanwhile, the level of stress decreased, and the attention to leisure increased in Lombardy after the lockdown. The attention to group, religion, and emotions became more prevalent in Wuhan after the lockdown. Findings provide decision-makers timely evidence on public reactions and the impacts on psychological states in the COVID-19 context, and have implications for evidence-based mental health interventions in two countries.

## Publication Type

Journal article.

<172>

## Accession Number

20203269248

## Author

Habib, Z. H.; Alam, A. N.

## Title

Biosafety measures in the laboratory during handling of specimens of SUSPECTED COVID-19 patients. (Special Issue: Newly emerging COVID19 infectious disease.)

## Source



Publisher

Bangladesh Infection Research Association

Location of Publisher

Dhaka

Country of Publication

Bangladesh

Abstract

The objective of the article was to discuss the protective biosafety measures that are implemented during specimen handling of suspected COVID-19 patients.

Publication Type

Journal article.

<173>

Accession Number

20203276095

Author

Phumthum, M.; Balslev, H.

Title

Anti-infectious plants of the Thai Karen: a meta-analysis.

Source

Antibiotics; 2020. 9(6)48 ref.

Publisher

MDPI AG

Location of Publisher

Basel

## Country of Publication

Switzerland

## Abstract

Pharmacology has developed many drugs to treat infections, but many people, especially in developing countries, cannot afford to purchase them, and still depend on traditional knowledge and local medicinal plants to fight off infections. In addition, numerous microbes have developed resistance to the pharmaceutical drugs developed to fight them, and for many, such as Covid-19, effective drugs remain to be found. Ethnomedicinal knowledge is useful, not only for local people as a source of medicine for primary health care, but also for new pharmacological discoveries. This study aimed to identify the plants that the Karen, the largest hill-tribe ethnic minority in northern and western Thailand, use for treatments of infectious diseases. We present a meta-analysis of data from 16 ethnobotanical studies of 25 Karen villages with the aim of understanding traditional knowledge and treatments and point to potential plants for further pharmacological development. The Karen used 127 plant species from 59 plant families to treat infections and infectious diseases. The Cultural Important Index (CI) showed that the Leguminosae, Euphorbiaceae, Asteraceae, Lauraceae, Apocynaceae, Menispermaceae, and Lamiaceae were the most commonly used families. As for species, *Cleidion javanicum*, *Tinospora crispa*, *Litsea cubeba*, *Aesculus assamica*, *Tadehagi triquetrum*, *Senna alata*, *Tithonia diversifolia*, *Embelia sessiliflora*, and *Combretum indicum* were the most commonly used in treatments of infectious diseases. We suggest that these plant species should be the first to be pharmacologically tested for possible development of medicines, and the remaining species registered should subsequently undergo testing.

## Publication Type

Journal article.

<174>

## Accession Number

20203276019

## Author

Randazzo, W.; Truchado, P.; Cuevas-Ferrando, E.; Simó, P.; Allende, A.; Sánchez, G.

## Title

SARS-CoV-2 RNA in wastewater anticipated COVID-19 occurrence in a low prevalence area.

## Source

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Water Research (Oxford); 2020. 181many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has caused more than 200,000 reported COVID-19 cases in Spain resulting in more than 20,800 deaths as of April 21, 2020. Faecal shedding of SARS-CoV-2 RNA from COVID-19 patients has extensively been reported. Therefore, we investigated the occurrence of SARS-CoV-2 RNA in six wastewater treatments plants (WWTPs) serving the major municipalities within the Region of Murcia (Spain), the area with the lowest COVID-19 prevalence within Iberian Peninsula. Firstly, an aluminum hydroxide adsorption-precipitation concentration method was validated using a porcine coronavirus (Porcine Epidemic Diarrhea Virus, PEDV) and mengovirus (MgV). The procedure resulted in average recoveries of 10 +/- 3.5% and 10 +/- 2.1% in influent water (n=2) and 3.3 +/- 1.6% and 6.2 +/- 1.0% in effluent water (n=2) samples for PEDV and MgV, respectively. Then, the method was used to monitor the occurrence of SARS-CoV-2 from March 12 to April 14, 2020 in influent, secondary and tertiary effluent water samples. By using the real-time RT-PCR (RT-qPCR) Diagnostic Panel validated by US CDC that targets three regions of the virus nucleocapsid (N) gene, we estimated quantification of SARS-CoV-2 RNA titers in untreated wastewater samples of 5.4 +/- 0.2 log<sub>10</sub> genomic copies/L on average. Two secondary water samples resulted positive (2 out of 18) and all tertiary water samples tested as negative (0 out of 12). This environmental surveillance data were compared to declared COVID-19 cases at municipality level, revealing that members of the community were shedding SARS-CoV-2 RNA in their stool even before the first cases were reported by local or national authorities in many of the cities where wastewaters have been sampled. The detection of SARS-CoV-2 in wastewater in early stages of the spread of COVID-19 highlights the relevance of this strategy as an early indicator of the infection within a specific population. At this point, this environmental surveillance could be implemented by municipalities right away as a tool, designed to help authorities to coordinate the exit strategy to gradually lift its coronavirus lockdown.

Publication Type

Journal article.

<175>

Accession Number

20203276569

Author

Scarmozzino, F.; Visioli, F.

Title

Covid-19 and the subsequent lockdown modified dietary habits of almost half the population in an Italian sample.

Source

Foods; 2020. 9(5)32 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The Covid-19 pandemic led to lockdowns in several parts of the world and, hence, changed some daily habits, including social interactions, the ability to perform sports, and-possibly-diet. The Italian government established and promulgated lockdown policies on 9 March 2020. We aim at assessing the effects of Covid-19-induced confinement policies on self-reported food consumption of self-selected Italians by means of a questionnaire that was created and diffused by the Internet. Nearly half, i.e., 49.6% of responders did not substantially modify their diet during the lockdown; however, 46.1% of them reported that they were eating more during confinement, and 19.5% gained weight. In particular, we report an increase in "comfort food" consumption, notably chocolate, ice-cream, and desserts (42.5%) and salty snacks (23.5%). In addition, 42.7% percent of this cohort attributed this increase to higher anxiety levels. Related to this, 36.8% of responders reported a decrease in alcohol consumption, even though 10.1% of them reported an increase. Interestingly, 21.2% of responders increased their consumption of fresh fruit and vegetables. Only 33.5% of those who declared decreased consumption attributed this change of diet to lower availability and ease of purchasing such items. Equally interesting, over half of responders, i.e., 56.2%, admitted that fruit and vegetables did not appeal to them while in lockdown. Purchases of ready-made meals were reduced by nearly 50%. Future large-scale similar studies should be undertaken worldwide and will help public health authorities shape their reactions to future, unavoidable pandemics.

Publication Type

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Journal article.

<176>

Accession Number

20203270394

Author

Yuan Shu; Jiang SiCong; Li ZiLin

Title

Analysis of possible intermediate hosts of the new coronavirus SARS-CoV-2.

Source

Frontiers in Veterinary Science; 2019. 5(November)38 ref.

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

Since infections with the new pneumonia virus (SARS-CoV-2) were first reported in China, the epidemic has spread rapidly. Now the virus has spread beyond China, and international exportation into most countries in the world is occurring. To date, the source(s) and complete route of transmission of the virus have not been clarified.

Publication Type

Journal article.

<177>

Accession Number

20203278997

Author

Chinnery, G. E.; Scriba, M. F.; Jonas, E. G.

Title

South African gastroenterology review - rapid emergent changes in the upper gastrointestinal endoscopy service routines at Groote Schuur Hospital with COVID-19 - innovation.

Source

South African Gastroenterology Review; 2020. 18(1):6-8.

Publisher

In-House Publications

Location of Publisher

Craighall

Country of Publication

South Africa

Abstract

Community spread of COVID-19 is now established in South Africa and recent data from China suggests up to 80% of infected individuals possibly being asymptomatic and thus an important possible source of contagion. Upper gastrointestinal (GI) endoscopy is considered a high-risk procedure, as it carries the potential of aerosolizing the SARS-CoV-2 virus. This has prompted our local endoscopic practice to change dramatically in a short space of time.

Publication Type

Journal article.

<178>

Accession Number

20203275869

Author

Gallo, L. A.; Gallo, T. F.; Young, S. L.; Moritz, K. M.; Akison, L. K.

Title

The impact of isolation measures due to COVID-19 on energy intake and physical activity levels in Australian university students.

Source

Nutrients; 2020. 12(6)42 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The coronavirus disease 2019 (COVID-19) pandemic resulted in physical isolation measures in many parts of the world. In Australia, nationwide restrictions included staying at home, unless seeking medical care, providing care, purchasing food, undertaking exercise, or attending work in an essential service. All undergraduate university classes transitioned to online, mostly home-based learning. We, therefore, examined the effect of isolation measures during the early phase of the COVID-19 pandemic in Australia (March/April) on diet (24-h recall) and physical activity (Active Australia Survey) patterns in third-year biomedical students. Findings were compared with students enrolled in the same course in the previous two years. In females, but not males, energy intake was ~20% greater during the pandemic, and snacking frequency and energy density of consumed snacks also increased compared with 2018 and 2019. Physical activity was impacted for both sexes during the pandemic with ~30% fewer students achieving "sufficient" levels of activity, defined by at least 150 min over at least five sessions, compared with the previous two years. In a follow-up study six to eight weeks later (14-18% response rate), during gradual easing of nationwide restrictions albeit continued gym closures and online learning, higher energy intake in females and reduced physical activity levels in both sexes persisted. These data demonstrate the health impacts of isolation measures, with the potential to affect long-term diet and activity behaviours.

Publication Type

Journal article.

<179>

Accession Number

20203281494

Author

Zhu XiaoJuan; Ge YiYue; Wu Tao; Zhao KangChen; Chen Yin; Wu Bin; Zhu FengCai; Zhu BaoLi; Cui LunBiao

Title

Co-infection with respiratory pathogens among COVID-2019 cases.

Source

Virus Research; 2020. 28511 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Accumulating evidence shows that microbial co-infection increases the risk of disease severity in humans. There have been few studies about SARS-CoV-2 co-infection with other pathogens. In this retrospective study, 257 laboratory-confirmed COVID-19 patients in Jiangsu Province were enrolled from January 22 to February 2, 2020. They were re-confirmed by real-time RT-PCR and tested for 39 respiratory pathogens. In total, 24 respiratory pathogens were found among the patients, and 242 (94.2%) patients were co-infected with one or more pathogens. Bacterial co-infections were dominant in all COVID-19 patients, *Streptococcus pneumoniae* was the most common, followed by *Klebsiella pneumoniae* and *Haemophilus influenzae*. The highest and lowest rates of co-infections were found in patients aged 15-44 and below 15, respectively. Most co-infections occurred within 1-4 days of onset of COVID-19 disease. In addition, the proportion of viral co-infections, fungal co-infections and bacterial-fungal co-infections were the highest severe COVID-19 cases. These results will provide a helpful reference for diagnosis and clinical treatment of COVID-19 patients.

Publication Type



<180>

Accession Number

20203281934

Author

Fattorini, D.; Regoli, F.

Title

Role of the chronic air pollution levels in the COVID-19 outbreak risk in Italy.

Source

Environmental Pollution; 2020. 264

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

After the initial outbreak in China, the diffusion in Italy of SARS-CoV-2 is exhibiting a clear regional trend with more elevated frequency and severity of cases in Northern areas. Among multiple factors possibly involved in such geographical differences, a role has been hypothesized for atmospheric pollution. We provide additional evidence on the possible influence of air quality, particularly in terms of chronicity of exposure on the spread viral infection in Italian regions. Actual data on Covid-19 outbreak in Italian provinces and corresponding long-term air quality evaluations, were obtained from Italian and European agencies, elaborated and tested for possible interactions. Our elaborations reveal that, beside concentrations, the chronicity of exposure may influence the anomalous variability of SARS-CoV-2 in Italy. Data on distribution of atmospheric pollutants (NO<sub>2</sub>, O<sub>3</sub>, PM<sub>2.5</sub> and PM<sub>10</sub>) in Italian regions during the last 4 years, days exceeding regulatory limits, and years of the last decade (2010-2019) in which the limits have been exceeded for at least 35 days, highlight that Northern Italy has been constantly exposed to chronic air pollution. Long-term air-quality data significantly correlated with cases

of Covid-19 in up to 71 Italian provinces (updated April 27, 2020) providing further evidence that chronic exposure to atmospheric contamination may represent a favourable context for the spread of the virus. Pro-inflammatory responses and high incidence of respiratory and cardiac affections are well known, while the capability of this coronavirus to bind particulate matters remains to be established. Atmospheric and environmental pollution should be considered as part of an integrated approach for sustainable development, human health protection and prevention of epidemic spreads but in a long-term and chronic perspective, since adoption of mitigation actions during a viral outbreak could be of limited utility.

Publication Type

Journal article.

<181>

Accession Number

20203264099

Author

Tong ZhenDong; Tang An; Li KeFeng; Li Peng; Wang HongLing; Yi JingPing; Zhang YongLi; Yan JianBo

Title

Potential presymptomatic transmission of sars-cov-2, Zhejiang Province, China, 2020.

Source

Emerging Infectious Diseases; 2020. 26(5):1052-1054. 1 ref.

Publisher

National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

We report a 2-family cluster of persons infected with severe acute respiratory syndrome coronavirus 2 in the city of Zhoushan, Zhejiang Province, China, during January 2020. The infections resulted from

contact with an infected but potentially presymptomatic traveler from the city of Wuhan in Hubei Province.

Publication Type

Journal article.

<182>

Accession Number

20203276318

Author

Hirvonen, K.; Abate, G. T.; Brauw, A. de

Title

Food and nutrition security in Addis Ababa, Ethiopia during COVID-19 pandemic: may 2020 report.

Source

ESSP Working Paper - Ethiopia Strategy Support Program; 2020. (143):iv + 22 pp. 32 ref.

Publisher

International Food Policy Research Institute (IFPRI)

Location of Publisher

Washington D.C.

Country of Publication

USA

Abstract

We called by telephone a representative sample of 600 households in Addis Ababa, Ethiopia to assess household food and nutrition security status during the COVID-19 pandemic. More than half the households indicated that their incomes were lower than expected and more than one-third reported that they are extremely stressed about the situation. Using a pre-pandemic 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 a period just before the pandemic (January and February 2020), indicators measuring food security have significantly worsened. In April, households were 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, possibly because most households have used their savings to buffer food consumption. It is likely that these savings will not last for much longer, calling for a rapid scale-up of existing support programs.

#### Publication Type

Bulletin.

<183>

#### Accession Number

20203276304

#### Author

Ölcer, S.; Yilmaz-Aslan, Y.; Brzoska, P.

#### Title

Lay perspectives on social distancing and other official recommendations and regulations in the time of COVID-19: a qualitative study of social media posts.

#### Source

BMC Public Health; 2020. 20(963):(19 June 2020). 36 ref.

#### Publisher

BioMed Central Ltd

#### Location of Publisher

London

#### Country of Publication

UK

#### Abstract

Background: COVID-19 caused by a new form of coronavirus (SARS-CoV-2) first appeared in China end of 2019 and quickly spread to all counties of the world. To slow down the spread of the virus and to limit the pressure on the health care systems, different regulations and recommendations have been implemented by authorities, comprising amongst others the closure of all entertainment venues and social distancing. These measures have received mixed reactions, particularly from young individuals, with many not following available advice. Drawing on the information in social media discussion forums,

the present study explores the reasons why people ignore the orders and recommendations of the authorities and why the authorities are unable to produce a shared sense of inclusion concerning protective measures against the COVID-19 outbreak. Methods: Three open-access social media forums (Reddit, Twitter, and YouTube comments) were systematically searched with respect to COVID-19-related beliefs, attitudes, and behaviours of individuals. The data was retrieved in the first 3 weeks of March 2020. Qualitative document analysis and qualitative content analysis were used as the methodical approach. The data was reviewed by all authors and jointly interpreted to minimise inconsistencies. Results: The study reveals that reasons such as information pollution on social media, the persistence of uncertainty about the rapidly spreading virus, the impact of the social environment on the individual, and fear of unemployment associated with inequality in the distribution of income lead people to ignore the orders and recommendations of the authorities. The findings suggest that government representatives and politicians could not produce a shared sense of inclusion concerning protective measures against the COVID-19 outbreak, due to not building trust among the public and taking concrete economic steps to satisfy them. Conclusion: In uncertain crises, transparency in the presentation of information and government policies emerge as influential determinants in creating social susceptibility and solidarity. The differences between social classes constitute one of the important factors that affect the decision-making mechanisms of individuals in determining the necessary steps to be undertaken in times of crisis.

#### Publication Type

Journal article.

<184>

#### Accession Number

20203274488

#### 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

Critical care for COVID-19 affected patients: position statement of the Indian Society of Critical Care Medicine.

#### Source

Indian Journal of Critical Care Medicine; 2020. 24(4):222-241. 37 ref.

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Publisher

Jaypee Brothers Medical Publishers Pvt. Ltd.

Location of Publisher

New Delhi

Country of Publication

India

Abstract

The global pandemic involving severe acute respiratory syndrome-coronavirus-2 (SARS-COV-2) has stretched the limits of science. Ever since it emerged from the Wuhan province in China, it has spread across the world and has been fatal to about 4% of the victims. This position statement of the Indian Society of Critical Care Medicine represents the collective opinion of the experts chosen by the society.

Publication Type

Journal article.

<185>

Accession Number

20203278798

Author

Pastorino, B.; Touret, F.; Gilles, M.; Luciani, L.; Lamballerie, X. de; Charrel, R. N.

Title

Evaluation of chemical protocols for inactivating SARS-CoV-2 infectious samples.

Source

Viruses; 2020. 12(6)20 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Clinical samples collected in coronavirus disease 19 (COVID-19), patients are commonly manipulated in bio-safety level 2 laboratories for molecular diagnostic purposes. Here, we tested French norm NF-EN-14476+A2 derived from European standard EN-14885 to assess the risk of manipulating infectious viruses prior to RNA extraction. SARS-CoV-2 cell-culture supernatant and nasopharyngeal samples (virus-spiked samples and clinical samples collected in COVID-19 patients) were used to measure the reduction of infectivity after 10 min contact with lysis buffer containing various detergents and chaotropic agents. A total of thirteen protocols were evaluated. Two commercially available formulations showed the ability to reduce infectivity by at least 6 log 10, whereas others proved less effective.

Publication Type

Journal article.

<186>

Accession Number

20203275672

Author

Sidor, A.; Rzymiski, P.

Title

Dietary choices and habits during COVID-19 lockdown: Experience from Poland.

Source

Nutrients; 2020. 12(6)many ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Abstract

The outbreak of coronavirus disease (COVID-19) in late December 2019 in China, which later developed into a pandemic, has forced different countries to implement strict sanitary regimes and social distancing measures. Globally, at least four billion people were under lockdown, working remotely, home schooling children, and facing challenges coping with quarantine and the stressful events. The present cross-sectional online survey of adult Poles (n = 1097), conducted during a nationwide quarantine, aimed to assess whether nutritional and consumer habits have been affected under these conditions. Over 43.0% and nearly 52% reported eating and snacking more, respectively, and these tendencies were more frequent in overweight and obese individuals. Almost 30% and over 18% experienced weight gain (mean +/- SD 3.0 +/- 1.6 kg) and loss (-2.9 +/- 1.5 kg), respectively. Overweight, obese, and older subjects (aged 36-45 and >45) tended to gain weight more frequently, whereas those with underweight tended to lose it further. Increased BMI was associated with less frequent consumption of vegetables, fruit, and legumes during quarantine, and higher adherence to meat, dairy, and fast-foods. An increase in alcohol consumption was seen in 14.6%, with a higher tendency to drink more found among alcohol addicts. Over 45% of smokers experienced a rise in smoking frequency during the quarantine. The study highlights that lockdown imposed to contain an infectious agent may affect eating behaviors and dietary habits, and advocates for organized nutritional support during future epidemic-related quarantines, particularly for the most vulnerable groups, including overweight and obese subjects.

Publication Type

Journal article.

<187>

Accession Number

20203275636

Author

Mehmel, M.; Jovanovi&cacute;, N.; Spitz, U.

Title

Nicotinamide riboside-The current state of research and therapeutic uses.

Source

Nutrients; 2020. 12(6)many ref.



Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Nicotinamide riboside (NR) has recently become one of the most studied nicotinamide adenine dinucleotide (NAD<sup>+</sup>) precursors, due to its numerous potential health benefits mediated via elevated NAD<sup>+</sup> content in the body. NAD<sup>+</sup> is an essential coenzyme that plays important roles in various metabolic pathways and increasing its overall content has been confirmed as a valuable strategy for treating a wide variety of pathophysiological conditions. Accumulating evidence on NRs' health benefits has validated its efficiency across numerous animal and human studies for the treatment of a number of cardiovascular, neurodegenerative, and metabolic disorders. As the prevalence and morbidity of these conditions increases in modern society, the great necessity has arisen for a rapid translation of NR to therapeutic use and further establishment of its availability as a nutritional supplement. Here, we summarize currently available data on NR effects on metabolism, and several neurodegenerative and cardiovascular disorders, through to its application as a treatment for specific pathophysiological conditions. In addition, we have reviewed newly published research on the application of NR as a potential therapy against infections with several pathogens, including SARS-CoV-2. Additionally, to support rapid NR translation to therapeutics, the challenges related to its bio-availability and safety are addressed, together with the advantages of NR to other NAD<sup>+</sup> precursors.

Publication Type

Journal article.

<188>

Accession Number

20203272542

Author

Zhang XiaoJun; Wang FanFan; Zhu ChangWen; Wang ZhiQiang

Title

Willingness to self-isolate when facing a pandemic risk: model, empirical test, and policy recommendations.

Source

International Journal of Environmental Research and Public Health; 2020. 17(1)59 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Infected people are isolated to minimize the spread of pandemic diseases. Therefore, the factors related to self-isolation (SI) should not be neglected, and it is important to investigate the factors leading the infected (or possibly infected) people to choose to self-isolate. In this paper, we tried to show that the theory of planned behavior provides a useful conceptual framework for SI when facing a pandemic risk, and a regression method with Chinese provincial (Guangdong Province) data was applied to investigate how attitude (ATT), subjective norms (SN), and perceived behavioral control (PBC) influence SI when facing a pandemic emergency. The results and the robustness tests confirm that ATT, SN, and PBC have a significant positive influence on SI when facing a pandemic emergency. ATT plays the most important role, followed by SN and then PBC. Based on the factors of SI, we found, through theoretical and empirical analyses, at least three important aspects that local governments need to consider to encourage citizens to self-isolate when facing a pandemic.

Publication Type

Journal article.

<189>

Accession Number

20203275605

Author

Ammar, A.; Brach, M.; Trabelsi, K.; Chtourou, H.; Boukhris, O.; Masmoudi, L.; Bouaziz, B.; Bentlage, E.; How, D.; Ahmed, M.; M&uuml;ller, P.; M&uuml;ller, N.; Aloui, A.; Hammouda, O.; Paineiras-Domingos, L. L.; Braakman-Jansen, A.; Wrede, C.; Bastoni, S.; Pernambuco, C. S.; Mataruna, L.; Taheri, M.; Irandoust, K.; Khacharem, A.; Bragazzi, N. L.; Chamari, K.; Glenn, J. M.; et al.

#### Title

Effects of COVID-19 home confinement on eating behaviour and physical activity: results of the ECLB-COVID19 international online survey.

#### Source

Nutrients; 2020. 12(6)33 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Switzerland

#### Abstract

Background: Public health recommendations and governmental measures during the COVID-19 pandemic have resulted in numerous restrictions on daily living including social distancing, isolation and home confinement. While these measures are imperative to abate the spreading of COVID-19, the impact of these restrictions on health behaviours and lifestyles at home is undefined. Therefore, an international online survey was launched in April 2020, in seven languages, to elucidate the behavioural and lifestyle consequences of COVID-19 restrictions. This report presents the results from the first thousand responders on physical activity (PA) and nutrition behaviours. Methods: Following a structured review of the literature, the "Effects of home Confinement on multiple Lifestyle Behaviours during the COVID-19 outbreak (ECLB-COVID19)" Electronic survey was designed by a steering group of multidisciplinary scientists and academics. The survey was uploaded and shared on the Google online survey platform. Thirty-five research organisations from Europe, North-Africa, Western Asia and the Americas promoted the survey in English, German, French, Arabic, Spanish, Portuguese and Slovenian languages. Questions were presented in a differential format, with questions related to responses "before" and "during" confinement conditions. Results: 1047 replies (54% women) from Asia (36%), Africa (40%), Europe (21%) and other (3%) were included in the analysis. The COVID-19 home confinement had a negative effect on all PA intensity levels (vigorous, moderate, walking and overall). Additionally, daily sitting time increased from 5 to 8 h per day. Food consumption and meal patterns (the type of food, eating out of control, snacks between meals, number of main meals) were more unhealthy during confinement, with only alcohol binge drinking decreasing significantly. Conclusion: While isolation is a necessary measure to protect public health, results indicate that it alters physical activity and eating behaviours in a health compromising direction. A more detailed analysis of survey data will allow for a segregation of these responses in different age groups, countries and other subgroups, which will help

develop interventions to mitigate the negative lifestyle behaviours that have manifested during the COVID-19 confinement.

Publication Type

Journal article.

<190>

Accession Number

20203273728

Author

Taype-Rondan, A.; Hurtado-Roca, Y.; Estrada-Martínez, M.; Timaná-Ruiz, R.

Title

Clinical recommendations for evaluation and risk management of COVID-19 in healthcare personnel in the Peruvian Social Insurance (EsSalud). [Spanish]

Source

Acta Medica Peruana; 2020. 37(1):84-87. 6 ref.

Publisher

Colegio Medico del Peru

Location of Publisher

Lima

Country of Publication

Peru

Abstract

We are currently experiencing a coronavirus disease (COVID-19) pandemic. A vulnerable group of being infected by this pathogenic agent is health personnel. For this reason, the Health Technology Assessment and Research Institute (IETSI in Spanish) of the Peruvian social insurance (EsSalud) has issued clinical recommendations on risk assessment and management of health care personnel in the context of the COVID-19 pandemic, which we will summarize in this paper. An evaluation and management flow chart are included, as well as a table to determine the risk of developing COVID-19 infection.

Publication Type

Journal article.

<191>

Accession Number

20203280584

Author

Bleasel, M. D.; Peterson, G. M.

Title

Emetine, ipecac, ipecac alkaloids and analogues as potential antiviral agents for coronaviruses.

Source

Pharmaceuticals; 2020. 13(3)48 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 coronavirus is currently spreading around the globe with limited treatment options available. This article presents the rationale for potentially using old drugs (emetine, other ipecac alkaloids or analogues) that have been used to treat amoebiasis in the treatment of COVID-19. Emetine had amongst the lowest reported half-maximal effective concentration (EC50) from over 290 agents screened for the Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS) coronaviruses. While EC50 concentrations of emetine are achievable in the blood, studies show that concentrations of emetine can be almost 300 times higher in the lungs. Furthermore, based on the relative EC50s of emetine towards the coronaviruses compared with *Entamoeba histolytica*, emetine could be much more effective as an anti-coronavirus agent than it is against amoebiasis. This paper also discusses the known side effects of emetine and related compounds, how those side effects can be

managed, and the optimal method of administration for the potential treatment of COVID-19. Given the serious and immediate threat that the COVID-19 coronavirus poses, our long history with emetine and the likely ability of emetine to reach therapeutic concentrations within the lungs, ipecac, emetine, and other analogues should be considered as potential treatment options, especially if in vitro studies confirm viral sensitivity.

Publication Type

Journal article.

<192>

Accession Number

20203283628

Author

Vikram Saini; Kriti Sikri; Batra, S. D.; Priya Kalra; Kamini Gautam

Title

Development of a highly effective low-cost vaporized hydrogen peroxide-based method for disinfection of personal protective equipment for their selective reuse during pandemics.

Source

Gut Pathogens; 2020. 12(29):(19 June 2020). 33 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: Personal Protective Equipment (PPE) is required to safely work with biological agents of bacterial (i.e. Mycobacterium tuberculosis) or viral origin (Ebola and SARS). COVID-19 pandemic especially has created unforeseen public health challenges including a global shortage of PPE needed for the safety of health care workers (HCWs). Although sufficient stocks of PPE are currently available,

their critical shortage may develop soon due to increase in demand and depletion of existing supply lines. To empower our HCWs and ensure their continued protection, proactive measures are urgently required to develop procedures to safely decontaminate the PPEs to allow their "selective reuse" during contingency situations. Methods: Herein, we have successfully developed a decontamination method based on vaporized hydrogen peroxide (VHP). We have used a range of concentration of hydrogen peroxide to disinfect PPE (coveralls, face-shields, and N-95 masks). To ensure a proper disinfection, we have evaluated three biological indicators namely Escherichia coli, Mycobacterium smegmatis and spores of Bacillus stearothermophilus, considered as the gold standard for disinfection processes. We next evaluated the impact of repeated VHP treatment on physical features, permeability, and fabric integrity of coveralls and N-95 masks. Next, we performed Scanning Electron Microscopy (SEM) to evaluate microscopic changes in fiber thickness of N-95 masks, melt blown layer or coverall body suits. Considering the fact that any disinfection procedure should be able to meet local requirements, our study included various regionally procured N-95 masks and coveralls available at our institute All India Institute of Medical Sciences (AIIMS), New Delhi, India. Lastly, the practical utility of VHP method developed herein was ascertained by operationalizing a dedicated research facility disinfecting used PPE during COVID-19. Results: Our prototype studies show that a single VHP cycle (7-8% Hydrogen peroxide) could disinfect PPE and PPE housing room of about 1200 cubic feet (length 10 ft breadth 10 ft height 12 ft) in less than 10 min, as noted by a complete loss of B. stearothermophilus spore revival. The results are consistent and reproducible as tested in over 10 cycles in our settings. Further, repeated VHP treatment did not result in any physical tear, deformity or other appreciable change in the coverall and N-95 masks. Our permeation tests evaluating droplet penetration did not reveal any change in permeability post-VHP treatments. Also, SEM analysis indeed revealed no significant change in fiber thickness or damage to fibers of coveralls or melt blown layer of N-95 masks essential for filtration. There was no change in user comfort and experience following VHP treatment of PPE. Based on results of these studies, and parameters developed and optimized, an institutional research facility to disinfect COVID-19 PPE is successfully established and operationalized with more than 80% recovery rate for used PPE post-disinfection. Conclusions: Our study, therefore, successfully establishes the utility of VHP to effectively disinfect PPE for a possible reuse as per the requirements. VHP treatment did not damage coveralls, cause physical deformity and also did not alter fabric architecture of melt blown layer. We observed that disinfection process was successful consistently and therefore believe that the VHP-based decontamination model will have a universal applicability and utility. This process can be easily and economically scaled up and can be instrumental in easing global PPE shortages in any biosafety facility or in health care settings during pandemic situation such as COVID-19.

#### Publication Type

Journal article.

<193>

Accession Number

20203283619

Author

Amer, H. W.; Mohamed, H. A.

Title

Effect of nursing instructions about COVID-19 preventive measures on knowledge and reported practice of hospitalized school age children.

Source

International Journal of Pediatrics; 2020. 8(6):11449-11465.

Publisher

Mashhad University of Medical Sciences

Location of Publisher

Mashhad

Country of Publication

Iran

Abstract

Background: COVID-19, novel coronavirus, has been identified by the World Health Organization as a pandemic that causes highly transmittable respiratory disease. Lack of awareness about COVID-19 preventive measures represents a global threat. The aim of the current study was to evaluate the effect of nursing instructions about COVID-19 preventive measures on knowledge and reported practice of hospitalized school age children. Materials and Methods: One group pre-posttest quasi-experimental design was utilized to carry out the current study. Setting: The study was conducted in the medical wards at Cairo University Specialized Pediatric Hospital CUSPH. Sample: A purposive sample of 100 hospitalized school age children was included in the study. Data Collection Tool: Structured interview questionnaire designed by the researcher contained seventy-eight questions related to children's demographic data, general knowledge about COVID-19, symptoms, modes of transmission, treatment and prevention was used. Results: More than half of the children's ages ranged from 10 to 12 years, they were males and ranked as first child. The results of the current study revealed that there were statistically significant differences in total mean score of children's knowledge before and after receiving nursing instructions and total mean score of children reported-practices Conclusion: School age children had insufficient knowledge about novel COVID-19; along with low standards of reported-practices. After nursing instructions, higher total mean scores were detected regarding their knowledge and reported-practices. Recommendations: Pediatric nurses must provide awareness and public knowledge regarding the novel COVID-19 with simple Arabic illustrative educational booklets and posters about COVID-19 for all children in all health care settings to prevent the spread of this pandemic disease.



Publication Type

Journal article.

<194>

Accession Number

20203283603

Author

Tomé, M.; Amorim, E.; Smith, M. L.

Title

Analysis of the informative content on official tourism websites about traveller health and the risks related to COVID-19. [Portuguese]

Source

International Journal of Safety and Security in Tourism/Hospitality; 2020. (21)40 ref.

Publisher

Centre for Business Review and Studies (CBRS)

Location of Publisher

Buenos Aires

Country of Publication

Argentina

Abstract

The main objective of this study was to analyze the content provided on the official tourism websites of the five countries with the largest receptive tourist flow on the American continent (USA, Mexico, Canada, Argentina and Brazil) and on the European continent (France, Spain, Italy, Turkey and Germany), in relation to public health for travellers in the highlighted countries, evaluating in particular the information content related to the COVID-19 pandemic. The preliminary results indicate that all the official tourism websites analyzed prioritize promotional content about destinations and, although most of them make some kind of reference to COVID-19, they do not provide adequate information to minimize the risks of COVID-19 to the health of travellers.

Publication Type

Journal article.

<195>

Accession Number

20203283602

Author

Ngo, F.; Nicely, A.

Title

Visitor (trader) harassment: two drivers not examined.....criminological theories explored.

Source

International Journal of Safety and Security in Tourism/Hospitality; 2020. (21)34 ref.

Publisher

Centre for Business Review and Studies (CBRS)

Location of Publisher

Buenos Aires

Country of Publication

Argentina

Abstract

Prior to the 2020 Corona virus pandemic (COVID-19), the harassment of visitors by local micro-traders was of significant concern to tourism leaders around the world, and this was occurring while many of the factors fueling such behaviours remain unknown. The goal of the present discourse was to introduce two criminological theories that may result in the discovery of drivers not yet examined through empirical research. In fact, the authors suggested that in addition to other factors the phenomenon may also be due to micro-traders experiencing low levels of self-control and negative strain, factors that could heighten post COVID-19.

Publication Type

Journal article.

<196>

Accession Number

20203280529

Author

Bisanzio, D.; Kraemer, M. U. G.; Bogoch, I. I.; Brewer, T.; Brownstein, J. S.; Reithinger, R.

Title

Use of Twitter social media activity as a proxy for human mobility to predict the spatiotemporal spread of COVID-19 at global scale.

Source

Geospatial Health; 2020. 15(1):19-24. 16 ref.

Publisher

Global Network of Geospatial Health

Location of Publisher

Naples

Country of Publication

Italy

Abstract

As of February 27, 2020, 82,294 confirmed cases of coronavirus disease (COVID-19) have been reported since December 2019, including 2,804 deaths, with cases reported throughout China, as well as in 45 international locations outside of mainland China. We predict the spatiotemporal spread of reported COVID-19 cases at the global level during the first few weeks of the current outbreak by analyzing openly available geolocated Twitter social media data. Human mobility patterns were estimated by analyzing geolocated 2013-2015 Twitter data from users who had: (i) tweeted at least twice on consecutive days from Wuhan, China, between November 1, 2013, and January 28, 2014, and November 1, 2014, and January 28, 2015; and (ii) left Wuhan following their second tweet during the time period under investigation. Publicly available COVID-19 case data were used to investigate the correlation among cases reported during the current outbreak, locations visited by the study cohort of Twitter users, and airports with scheduled flights from Wuhan. Infectious Disease Vulnerability Index (IDVI) data were obtained to identify the capacity of countries receiving travellers from Wuhan to respond to COVID-19. Our study cohort comprised 161 users. Of these users, 133 (82.6%) posted tweets from 157 Chinese cities (1,344 tweets) during the 30 days after leaving Wuhan following their second

tweet, with a median of 2 (IQR= 1-3) locations visited and a mean distance of 601 km (IQR= 295.2-834.7 km) traveled. Of our user cohort, 60 (37.2%) traveled abroad to 119 locations in 28 countries. Of the 82 COVID-19 cases reported outside China as of January 30, 2020, 54 cases had known geolocation coordinates and 74.1% (40 cases) were reported less than 15 km (median = 7.4 km, IQR= 2.9-285.5 km) from a location visited by at least one of our study cohort's users. Countries visited by the cohort's users and which have cases reported by January 30, 2020, had a median IDVI equal to 0.74. We show that social media data can be used to predict the spatiotemporal spread of infectious diseases such as COVID-19. Based on our analyses, we anticipate cases to be reported in Saudi Arabia and Indonesia; additionally, countries with a moderate to low IDVI (i.e.  $\leq 0.7$ ) such as Indonesia, Pakistan, and Turkey should be on high alert and develop COVID-19 response plans as soon as permitting.

#### Publication Type

Journal article.

<197>

#### Accession Number

20203278048

#### Author

Xie XiaoRu; Huang LiMan; Li Jun; Zhu Hong

#### Title

Generational differences in perceptions of food health/risk and attitudes toward organic food and game meat: the case of the COVID-19 crisis in China.

#### Source

International Journal of Environmental Research and Public Health; 2020. 17(9)85 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Switzerland

## Abstract

In December 2019, a novel laboratory-confirmed coronavirus (2019-nCoV) infection, which has caused clusters of severe illnesses, was first reported in Wuhan, the capital of Hubei province, China. This foodborne illness, which reportedly most likely originated in a seafood market where wild animals are sold illegally, has transmitted among humans through close contact, across the world. The aim of this study is to explore health/risk perceptions of and attitudes toward healthy/risky food in the immediate context of food crisis. More specifically, by using the data collected from 1008 respondents in January 2020, the time when China was hit hard by the "Corona Virus Disease 2019" (COVID-19), this study investigates the overall and different generational respondents' health/risk perceptions of and attitudes toward organic food and game meat. The results reveal that, firstly, based on their food health and risk perceptions of healthy and risky food, the respondents' general attitudes are positive toward organic food but relatively negative toward game meat. Secondly, older generations have a more positive attitude and are more committed to organic food. Younger generations' attitude toward game meat is more negative whereas older generations attach more importance to it because of its nutritional and medicinal values. In addition, this research also indicates that the COVID-19 crisis influences the respondents' perceptions of and attitudes toward organic food and game meat consumption. However, the likelihood of its impact on older generations' future change in diets is smaller, which implies that older generations' food beliefs are more stable.

## Publication Type

Journal article.

<198>

## Accession Number

20203278035

## Author

Lee MinJung; You MyoungSoon

## Title

Psychological and behavioral responses in South Korea during the early stages of coronavirus disease 2019 (COVID-19).

## Source

International Journal of Environmental Research and Public Health; 2020. 17(9)56 ref.

## Publisher

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MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Background: The psychological and behavioral responses during the early stage of Coronavirus disease 2019 (COVID-19) in South Korea were investigated to guide the public as full and active participants of public health emergency preparedness (PHEP), which is essential to improving resilience and reducing the population's fundamental vulnerability. Methods: Data were collected through an online survey four weeks after the Korea Centers for Disease Control and Prevention (KCDC) confirmed the first case in South Korea; 973 subjects were included in the analysis. Results: Respondents' perceived risk of COVID-19 infection; the majority of respondents reported that their perceived chance of infection was "neither high nor low" (51.3%). The average perceived severity score was higher than perceived susceptibility; 48.6% reported that the severity would be "high," while 19.9% reported "very high." Many respondents reported taking precautions, 67.8% reported always practicing hand hygiene, and 63.2% reported always wearing a facial mask when outside. Approximately 50% reported postponing or canceling social events, and 41.5% were avoiding crowded places. Practicing precautionary behaviors associated strongly with perceived risk and response efficacy of the behavior. Conclusions: Our study confirmed the significance of the psychological responses, which associated with behavioral responses and significantly influenced the public's level of public health emergency preparedness regarding the COVID-19 pandemic. This result has consequences not only for implementing public health strategies for the pandemic but also for understanding future emerging infectious diseases.

Publication Type

Journal article.

<199>

Accession Number

20203277371

Author

Wartecki, A.; Rzymiski, P.

Title

On the coronaviruses and their associations with the aquatic environment and wastewater.

Source

Water; 2020. 12(6)198 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The outbreak of Coronavirus Disease 2019 (COVID-19), a severe respiratory disease caused by betacoronavirus SARS-CoV-2, in 2019 that further developed into a pandemic has received an unprecedented response from the scientific community and sparked a general research interest into the biology and ecology of Coronaviridae, a family of positive-sense single-stranded RNA viruses. Aquatic environments, lakes, rivers and ponds, are important habitats for bats and birds, which are hosts for various coronavirus species and strains and which shed viral particles in their feces. It is therefore of high interest to fully explore the role that aquatic environments may play in coronavirus spread, including cross-species transmissions. Besides the respiratory tract, coronaviruses pathogenic to humans can also infect the digestive system and be subsequently defecated. Considering this, it is pivotal to understand whether wastewater can play a role in their dissemination, particularly in areas with poor sanitation. This review provides an overview of the taxonomy, molecular biology, natural reservoirs and pathogenicity of coronaviruses; outlines their potential to survive in aquatic environments and wastewater; and demonstrates their association with aquatic biota, mainly waterfowl. It also calls for further, interdisciplinary research in the field of aquatic virology to explore the potential hotspots of coronaviruses in the aquatic environment and the routes through which they may enter it.

Publication Type

Journal article.

<200>

Accession Number

20203274256

Author

Yao YuShan; Luo Zhen; Zhang XueWu

Title

In silico evaluation of marine fish proteins as nutritional supplements for COVID-19 patients.

Source

Food and Function; 2020. 11(6):5565-5572.

Publisher

Royal Society of Chemistry

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

To date, no specific drug has been discovered for the treatment of COVID-19 and hence, people are in a state of anxiety. Thus, there is an urgent need to search for various possible strategies including nutritional supplementation. In this study, we have tried to provide a reference for protein supplementation. Specifically, 20 marine fish proteins were subjected to in silico hydrolysis by gastrointestinal enzymes, and a large number of active peptides were generated. Then, the binding abilities of these peptides to SARS-CoV-2 main protease and monoamine oxidase A were assessed. The results showed that NADH dehydrogenase could be a good protein source in generating potent binders to the two enzymes, followed by cytochrome b. In addition, some high-affinity oligopeptides (VIQY, ICIY, PISQF, VISAW, AIPAW, and PVSQF) were identified as dual binders to the two enzymes. In summary, the supplementation of some fish proteins can be helpful for COVID-19 patients; the identified oligopeptides can be used as the lead compounds to design potential inhibitors against COVID-19 and anxiety.

Publication Type

Journal article.

<201>



Accession Number

20203275416

Author

Amewu, S.; Asante, S.; Pauw, K.; Thurlow, J.

Title

The economic costs of COVID-19 in sub-Saharan Africa: insights from a simulation exercise for Ghana.

Source

GSSP Working Paper - Ghana Strategy Support Program; 2020. (52):v + 18 pp. 42 ref.

Publisher

International Food Policy Research Institute (IFPRI)

Location of Publisher

Washington D.C.

Country of Publication

USA

Abstract

The objective in this paper is to estimate the economic costs of COVID-19 policies and external shocks in a developing country context, with a focus on agri-food system impacts. Ghana is selected as a case study. Ghana recorded its first two cases of COVID-19 infection on 12 March 2020. The government responded by gradually introducing social distancing measures, travel restrictions, border closures, and eventually a partial, two-week "partial" lockdown in the country's largest metropolitan areas of Accra and Kumasi. Social distancing measures have been enforced nationwide and include bans on conferences, workshops, and sporting and religious events, as well as the closure of bars and nightclubs. All educational institutions are also closed. The partial lockdown measures in urban areas directed all residents to remain home except for essential business, prohibited non-essential inter-city travel and transport, and only essential manufacturing and services operations were permitted to continue (The Presidency 2020). At the time the lockdown was announced, Ghana's Ministry of Finance revised its GDP growth estimate for 2020 downwards from 6.8 to 1.5 percent (MoF 2020), although the Minister warned that growth could fall further if lockdown measures were extended. The lockdown was initially extended for a third week but was officially lifted on 20 April. Social distancing measures remain in place nationwide, although a gradual easing of restrictions commenced in June. Ghana's borders remain closed at the time of writing.

Publication Type

Bulletin.

<202>

Accession Number

20203275411

Author

Abate, G. T.; Brauw, A. de; Hirvonen, K.

Title

Food and nutrition security in Addis Ababa, Ethiopia during COVID-19 pandemic: June 2020 report.

Source

ESSP Working Paper - Ethiopia Strategy Support Program; 2020. (145):iv + 24 pp.

Publisher

International Food Policy Research Institute (IFPRI)

Location of Publisher

Washington D.C.

Country of Publication

USA

Abstract

In early June 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 (survey period covering May). This was the second administration of a COVID-19 related survey to these households, following an initial survey conducted in early May 2020 covering the situation of the survey households in April. More than two-third of the households indicated in the second survey that their incomes were lower than expected (up from 58 percent in April) and 45 percent reported that they are extremely stressed about the situation (up from 35 percent in April). Using a pre-pandemic 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 a period just before the pandemic (January and February 2020), indicators measuring food security have significantly worsened but have remained the same since April. During the pandemic, households are less and 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, possibly because many households have been able to use their savings to buffer food consumption. As the pandemic is still in an early stage in Ethiopia, it is likely that these savings will not last throughout the pandemic, calling for a rapid scale-up of existing support programs.

Publication Type

Bulletin.

<203>

Accession Number

20203272323

Author

Cena, H.; Maffoni, S.; Braschi, V.; Brazzo, S.; Pallavicini, C.; Vietti, I.; Portale, S.; Corradi, E.

Title

Position paper of the Italian association of medical specialists in dietetics and clinical nutrition (ANSISA) on nutritional management of patients with COVID-19 disease.

Source

Mediterranean Journal of Nutrition and Metabolism; 2020. 13(2):113-117. 10 ref.

Publisher

IOS Press

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

COVID-19 disease is characterized by serious clinical manifestations which could require urgent hospitalization. Prolonged hospitalization, with catabolism and immobilization, induces a decrease in weight and muscle mass which can result in sarcopenia, a condition that impairs respiratory and cardiac function, worsening the prognosis. In this scenario there is an urgent need of nutritional indications aimed to prevent or contrast hospital malnutrition by improving the patient's response to therapy and to facilitate healthcare professionals in managing nutritional interventions on patients, reducing their already high workload due to the state of emergency.

Publication Type

<204>

Accession Number

20203270462

Author

Cao Ying; Sun YePing; Tian XiaoDong; Bai ZhiHua; Gong Yue; Qi JianXun; Liu, di; Liu WenJun; Li Jing

Title

Analysis of ACE2 gene encoding protein in mammalian species.

Source

Frontiers in Veterinary Science; 2019. 5(December)

Publisher

Frontiers Media S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

Human beings are currently experiencing a serious public health event. New coronavirus disease 2019 (COVID-19), caused by the novel severe acute respiratory syndrome coronavirus (SARS-CoV-2), has infected about 3 million people worldwide and killed more than 200,000, most being the elderly or people with potential chronic diseases or in immunosuppressive states. According to big data analysis, there are many proteins homologous to or interacting with the angiotensin-converting enzyme 2 (ACE2), which, therefore, may not be the only receptor for the novel coronavirus; other receptors may also exist in host cells of different species. These potential receptors may also play an important role in the infection process of the novel coronavirus. The current study aimed to discover such key proteins or receptors, and analyze the susceptibility of different animals to the novel coronavirus, in order to reveal the transmission of the virus in cross-species infection. We analyzed the proteins coded by the ACE2 gene in different mammalian species and predicted their correlation and homology with the human ACE2 receptor. The major finding of our predictive analysis suggested ACE2 gene-encoded proteins to

be highly homologous across mammals. Based on their high homology, their possibility of binding the spike-protein of SARS-CoV-2 is quite high and may be potential susceptible hosts, such as *Felis catus*, *Bos taurus*, *Rattus norvegicus* et al., special monitoring is particularly required for livestock that are in close contact with humans. Our results might provide ideas for the prevention and control of the novel coronavirus pneumonia.

Publication Type

Journal article.

<205>

Accession Number

20203274731

Author

Takano, T.; Satoh, K.; Doki, T.; Tanabe, T.; Hohdatsu, T.

Title

Antiviral effects of hydroxychloroquine and type I interferon on in vitro fatal feline coronavirus infection.

Source

Viruses; 2020. 12(5)31 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Feline infectious peritonitis (FIP) is a viral disease with a high morbidity and mortality by the FIP virus (FIPV, virulent feline coronavirus). Several antiviral drugs for FIP have been identified, but many of these are expensive and not available in veterinary medicine. Hydroxychloroquine (HCQ) is a drug approved by several countries to treat malaria and immune-mediated diseases in humans, and its antiviral effects on other viral infections (e.g., SARS-CoV-2, dengue virus) have been confirmed. We investigated whether

HCQ in association with interferon-omega (IFN-omega) is effective for FIPV in vitro. A total of 100 µM of HCQ significantly inhibited the replication of types I and II FIPV. Interestingly, the combination of 100 µM of HCQ and 104 U/mL of recombinant feline IFN-omega (rIFN-omega, veterinary registered drug) increased its antiviral activity against type I FIPV infection. Our study suggested that HCQ and rIFN-omega are applicable for treatment of FIP. Further clinical studies are needed to verify the combination of HCQ and rIFN-omega will be effective and safe treatment for cats with FIP.

Publication Type

Journal article.

<206>

Accession Number

20203274719

Author

Encinar, J. A.; Menendez, J. A.

Title

Potential drugs targeting early innate immune evasion of SARS-coronavirus 2 via 2'-O-methylation of viral RNA.

Source

Viruses; 2020. 12(5)162 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) causing the COVID-19 respiratory disease pandemic utilizes unique 2'-O-methyltransferase (2'-O-MTase) capping machinery to camouflage its RNA from innate immune recognition. The nsp16 catalytic subunit of the 2'-O-MTase is

unusual in its requirement for a stimulatory subunit (nsp10) to catalyze the ribose 2'-O-methylation of the viral RNA cap. Here we provide a computational basis for drug repositioning or de novo drug development based on three differential traits of the intermolecular interactions of the SARS-CoV-2-specific nsp16/nsp10 heterodimer, namely: (1) the S-adenosyl-l-methionine-binding pocket of nsp16, (2) the unique "activating surface" between nsp16 and nsp10, and (3) the RNA-binding groove of nsp16. We employed 9000 U.S. Food and Drug Administration (FDA)-approved investigational and experimental drugs from the DrugBank repository for docking virtual screening. After molecular dynamics calculations of the stability of the binding modes of high-scoring nsp16/nsp10-drug complexes, we considered their pharmacological overlapping with functional modules of the virus-host interactome that is relevant to the viral lifecycle, and to the clinical features of COVID-19. Some of the predicted drugs (e.g., tegobuvir, sonidegib, siramesine, antrafenine, bemcentinib, itacitinib, or phthalocyanine) might be suitable for repurposing to pharmacologically reactivate innate immune restriction and antagonism of SARS-CoV-2 RNAs lacking 2'-O-methylation.

#### Publication Type

Journal article.

<207>

#### Accession Number

20203274717

#### Author

Aboughdir, M.; Kirwin, T.; Khader, A. A.; Wang, B.

#### Title

Prognostic value of cardiovascular biomarkers in COVID-19: a review.

#### Source

Viruses; 2020. 12(5)46 ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Abstract

In early December 2019, the coronavirus disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) first emerged in Wuhan, China. As of May 10th, 2020, a total of over 4 million COVID-19 cases and 280,000 deaths have been reported globally, reflecting the raised infectivity and severity of this virus. Amongst hospitalised COVID-19 patients, there is a high prevalence of established cardiovascular disease (CVD). There is evidence showing that COVID-19 may exacerbate cardiovascular risk factors and preexisting CVD or may lead to cardiovascular complications. With intensive care units operating at maximum capacity and such staggering mortality rates reported, it is imperative during this time-sensitive COVID-19 outbreak to identify patients with an increased risk of adverse outcomes and/or myocardial injury. Preliminary findings from COVID-19 studies have shown the association of biomarkers of acute cardiac injury and coagulation with worse prognosis. While these biomarkers are recognised for CVD, there is emerging prospect that they may aid prognosis in COVID-19, especially in patients with cardiovascular comorbidities or risk factors that predispose to worse outcomes. Consequently, the aim of this review is to identify cardiovascular prognostic factors associated with morbidity and mortality in COVID-19 and to highlight considerations for incorporating laboratory testing of biomarkers of cardiovascular performance in COVID-19 to optimise outcomes.

Publication Type

Journal article.

<208>

Accession Number

20203275957

Author

Carducci, A.; Federigi, I.; Liu DaSheng; Thompson, J. R.; Verani, M.

Title

Making waves: coronavirus detection, presence and persistence in the water environment: state of the art and knowledge needs for public health.

Source

Water Research (Oxford); 2020. 179many ref.

Publisher



Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The main route of transmission of the human coronaviruses (HCoVs), and presumably also of the new pandemic SARS-CoV-2, is via droplets and close contacts, however their fecal elimination also suggests the possible spread via water. A scientific literature search was thus carried out to highlight the current state of the art and knowledge gaps regarding coronavirus in water. Since 1978 only 22 studies have met the inclusion criteria, and considered heterogeneous purposes, detection methods and types of water. In vitro experiments have addressed the recovery efficiency of analytical methods, survival in different types of water and the removal efficiency of water treatments. Field studies have monitored coronaviruses in surface waters, sewage, slurry, and biosolids. Overall, at the lab scale, HCoVs or surrogates can survive for several days at 4degreesC, however their persistence is lower compared with non-enveloped viruses and is strongly influenced by temperature and organic or microbial pollution. HCoVs have rarely been detected in field investigations, however may be due to the low recovery efficiency of the analytical methods. The scarcity of information on HCoV in the environment suggests that research is needed to understand the fate of these viruses in the water cycle.

Publication Type

Journal article.

<209>

Accession Number

20203275956

Author

Rosa, G. Ia; Bonadonna, L.; Lucentini, L.; Kenmoe, S.; Suffredini, E.

Title

Coronavirus in water environments: occurrence, persistence and concentration methods - a scoping review.

## Source

Water Research (Oxford); 2020. 17943 ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

Coronaviruses (CoV) are a large family of viruses causing a spectrum of disease ranging from the common cold to more severe diseases as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The recent outbreak of coronavirus disease 2019 (COVID-19) has become a public health emergency worldwide. SARS-CoV-2, the virus responsible for COVID-19, is spread by human-to-human transmission via droplets or direct contact. However, since SARS-CoV-2 (as well as other coronaviruses) has been found in the fecal samples and anal swabs of some patients, the possibility of fecal-oral (including waterborne) transmission need to be investigated and clarified. This scoping review was conducted to summarize research data on CoV in water environments. A literature survey was conducted using the electronic databases PubMed, EMBASE, and Web Science Core Collection. This comprehensive research yielded more than 3000 records, but only 12 met the criteria and were included and discussed in this review. In detail, the review captured relevant studies investigating three main areas: (1) CoV persistence/survival in waters; (2) CoV occurrence in water environments; (3) methods for recovery of CoV from waters. The data available suggest that: (i) CoV seems to have a low stability in the environment and is very sensitive to oxidants, like chlorine; (ii) CoV appears to be inactivated significantly faster in water than non-enveloped human enteric viruses with known waterborne transmission; (iii) temperature is an important factor influencing viral survival (the titer of infectious virus declines more rapidly at 23degreesC-25degreesC than at 4degreesC); (iv) there is no current evidence that human coronaviruses are present in surface or ground waters or are transmitted through contaminated drinking-water; (v) further research is needed to adapt to enveloped viruses the methods commonly used for sampling and concentration of enteric, non enveloped viruses from water environments. The evidence-based knowledge reported in this paper is useful to support risk analysis processes within the drinking and wastewater chain (i.e., water and sanitation safety planning) to protect human health from exposure to coronavirus through water.

## Publication Type

Journal article.

<210>

Accession Number

20203275910

Author

Martinez-Ferran, M.; Guía-Galipienso, F. de la; Sanchis-Gomar, F.; Pareja-Galeano, H.

Title

Metabolic impacts of confinement during the COVID-19 pandemic due to modified diet and physical activity habits.

Source

Nutrients; 2020. 12(6)66 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

While the detrimental effects of a chronic positive energy balance due to a sedentary lifestyle have been well established, the impacts of a short period of abruptly reduced physical activity and overeating arising from strict confinement due to the COVID-19 pandemic will soon start to emerge. To reasonably anticipate major consequences according to the available evidence, we hereby review the literature for studies that have explored the health impacts of several weeks of a reduction in physical activity and daily step-count combined with modified eating habits. These studies identify as main metabolic consequences increases in insulin resistance, total body fat, abdominal fat and inflammatory cytokines. All these factors have been strongly associated with the development of metabolic syndrome, which in turn increases the risk of multiple chronic diseases. A plausible mechanism involved in these impacts could be a positive energy balance promoted by maintaining usual dietary intake while reducing energy expenditure. This means that just as calorie intake restriction could help mitigate the deleterious impacts of a bout of physical inactivity, overeating under conditions of home confinement is very likely to exacerbate these consequences. Moreover, hypertension, diabetes, and cardiovascular disease have been identified as potential risk factors for more severely ill patients with COVID-19. Thus, adequate control of metabolic disorders could be important to reduce the risk of severe COVID-19.

Publication Type

<211>

Accession Number

20203281522

Author

Hudyono, R.; Bramantoro, T.; Benyamin, B.; Dwiandhono, I.; Soesilawati, P.; Hudyono, A. P.; Irmalia, W.; Nor Azlida, M. N.

Title

During and post COVID-19 pandemic: prevention of cross infection at dental practices in country with tropical climate.

Source

Dental Journal (Majalah Kedokteran Gigi); 2020. 53(2):81-87. 45 ref.

Publisher

Faculty of Dental Medicine, Universitas Airlangga

Location of Publisher

Surabaya

Country of Publication

Indonesia

Abstract

Background: COVID-19 has been regarded as a new pandemic in the world. This disease is highly contagious and can be transmitted easily through droplets and air. This matter is considered as a red flag to all dentists all over the globe. Until today, there is only a few specific guideline in regards to dental practice during and after the pandemic. The protocol only revolves around the limitation of patients' appointments and using level 3 personal protection equipment. There is no specific mention on the preparation method of the practice room especially in Indonesia. Purpose: This study aims to review literature on infection control in dental settings during COVID-19 pandemic and discuss possible recommendations based on available evidence. Review: The review also discussed the background of COVID-19, transmission, clinical findings, physicochemical properties, and cross infection in dental practice. Despite the usage of personal protective equipment, the rooms need to be set to specific

requirement to reduce contamination inside the room. Until today, COVID-19 transmission must be prevented with the best method available. Conclusion: No single protocol may fully guarantee the safety of the patients and dental workers. We suggest to combine the protocol listed above to minimize to self and cross-contamination 'new normal' practice.

Publication Type

Journal article.

<212>

Accession Number

20203281501

Author

Hou YuTong; Zhang LiLi; Ren MengTing; Han Zongxi; Sun JunFeng; Zhao Yan; Liu ShengWang

Title

A highly pathogenic GI-19 lineage infectious bronchitis virus originated from multiple recombination events with broad tissue tropism.

Source

Virus Research; 2020. 285many ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

In the present study, an IBV strain I0305/19 was isolated from a diseased commercial broiler flock in 2019 in China with high morbidity and mortality. The isolate I0305/19 was clustered together with viruses in sublineage D of GI-19 lineage on the basis of the complete S1 sequence analysis. Isolate I0305/19 and other GI-19 viruses isolated in China have the amino acid sequence MIA at positions 110-112 in the S protein. Further analysis based on the complete genomic sequence showed that the isolate

emerged through at least four recombination events between GI-19 ck/CH/LJS/120848- and GI-13 4/91-like strains, in which the S gene was found to be similar to that of the GI-19 ck/CH/LJS/120848-like strain. Pathological assessment showed the isolate was a nephropathogenic IBV strain that caused high morbidity of 100% and mortality of 80% in 1-day-old specificpathogen- free (SPF) chicks. The isolate I0305/19 exhibited broader tropisms in different tissues, including tracheas, lungs, bursa of Fabricius, spleen, liver, kidneys, proventriculus, small intestines, large intestines, cecum, and cecal tonsils. Furthermore, subpopulations of the virus were found in tissues of infected chickens; this finding is important in understanding how the virulent IBV strains can potentially replicate and evolve to cause disease. This information is also valuable for understanding the mechanisms of replication and evolution of other coronaviruses such as the newly emerged SARS-CoV-2.

#### Publication Type

Journal article.

<213>

#### Accession Number

20203281500

#### Author

Yang YongLe; Yu JiaQi; Huang YaoWei

#### Title

Swine enteric alphacoronavirus (swine acute diarrhea syndrome coronavirus): An update three years after its discovery.

#### Source

Virus Research; 2020. 28542 ref.

#### Publisher

Elsevier B.V.

#### Location of Publisher

Amsterdam

#### Country of Publication

Netherlands

## Abstract

Discovered in 2017, swine enteric alphacoronavirus (SeACoV), also known as swine acute diarrhea syndrome coronavirus (SADS-CoV) or porcine enteric alphacoronavirus (PEAV), is the fifth porcine CoV identified in diarrheal piglets. The presumed name "SADS-CoV" may not be appropriate since current studies have not provided strong evidence for high pathogenicity of the virus. SeACoV was the most recently recognized CoV of potential bat origin prior to the novel human severe acute respiratory syndrome CoV 2 (SARS-CoV-2), associated with the pandemic CoV disease 2019 (COVID-19). Although SeACoV is recognized as a regional epizootic virus currently, it possesses the most extensive cell species tropism in vitro among known CoVs. This review summarizes the emergence of SeACoV and updates the research progress made from 2017 to early 2020, mainly focusing on the etiology, epidemiology, evolutionary perspective, potential for interspecies transmission, pathogenesis and diagnosis.

## Publication Type

Journal article.

<214>

## Accession Number

20203279095

## Author

Andreucci, C. A.

## Title

Gyms and martial arts school after COVID-19: when to come back to train?

## Source

Advances in Physical Education; 2020. 10(2):114-120. 16 ref.

## Publisher

Scientific Research Publishing

## Location of Publisher

Irvine

## Country of Publication

USA

## Abstract

To determine with safety when and how to open gyms after the COVID-19 epidemic, it's very important since almost all places are locked down and probably will be closed for a while or permanently. We need to keep studying options and the ways to do it, therefore the sooner we discuss it, the less damage there will be, especially for owners and professionals. This article reviews systematically all numbers available about coronavirus until 01 April 2020. Until this date, COVID-19 is affecting 203 countries and territories around the world and 2 international conveyances: the Diamond Princess Cruise ship harbored in Yokohama, Japan, and Holland America's MS Zaandam cruise ship. Background: To determine when will be the right moment for gyms to come back and open their doors safely and how to prevent contamination of high risk people with COVID-19 in those places, directly and indirectly. Discussion: Well-known ways to help stop the spread of infection through personal hygiene, and adequate disinfection associated to social distancing, are reported in most articles about infection preventions, which are shown to be useful measures in SARS-COVID 2 also known as COVID-19. Conclusions: Private lessons are the best options after COVID-19, with control of body temperature before each class, a high level of personal hygiene and mat and equipment disinfection between classes for all activities in a gym. In group classes or closed spaces with more than 10 people, maintain 1 meter of distance if possible, using masks and gloves all the time until we have a better understanding of this virus's mutation. If possible and available, test coaches and instructors for COVID-19 every 14 days, the average period of incubation.

## Publication Type

Journal article.

<215>

## Accession Number

20203274085

## Author

Fan HuaHao; Wang LiQin; Liu WenLi; An XiaoPing; Liu ZhenDong; He XiaoQi; Song LiHua; Tong YiGang

## Title

Repurposing of clinically approved drugs for treatment of coronavirus disease 2019 in a 2019-novel coronavirus-related coronavirus model.



## Source

Chinese Medical Journal (Beijing); 2020. 133(9):1051-1056. 19 ref.

## Publisher

Chinese Medical Association Publishing House Co., Ltd

## Location of Publisher

Beijing

## Country of Publication

China

## Abstract

**Background:** Medicines for the treatment of 2019-novel coronavirus (2019-nCoV) infections are urgently needed. However, drug screening using live 2019-nCoV requires high-level biosafety facilities, which imposes an obstacle for those institutions without such facilities or 2019-nCoV. This study aims to repurpose the clinically approved drugs for the treatment of coronavirus disease 2019 (COVID-19) in a 2019-nCoV-related coronavirus model. **Methods:** A 2019-nCoV-related pangolin coronavirus GX\_P2V/pangolin/2017/Guangxi was described. Whether GX\_P2V uses angiotensin-converting enzyme 2 (ACE2) as the cell receptor was investigated by using small interfering RNA (siRNA)-mediated silencing of ACE2. The pangolin coronavirus model was used to identify drug candidates for treating 2019-nCoV infection. Two libraries of 2406 clinically approved drugs were screened for their ability to inhibit cytopathic effects on Vero E6 cells by GX\_P2V infection. The anti-viral activities and anti-viral mechanisms of potential drugs were further investigated. Viral yields of RNAs and infectious particles were quantified by quantitative real-time polymerase chain reaction (qRT-PCR) and plaque assay, respectively. **Results:** The spike protein of coronavirus GX\_P2V shares 92.2% amino acid identity with that of 2019-nCoV isolate Wuhan-hu-1, and uses ACE2 as the receptor for infection just like 2019-nCoV. Three drugs, including cepharanthine (CEP), selamectin, and mefloquine hydrochloride, exhibited complete inhibition of cytopathic effects in cell culture at 10  $\mu\text{mol/L}$ . CEP demonstrated the most potent inhibition of GX\_P2V infection, with a concentration for 50% of maximal effect [EC<sub>50</sub>] of 0.98  $\mu\text{mol/L}$ . The viral RNA yield in cells treated with 10  $\mu\text{mol/L}$  CEP was 15,393-fold lower than in cells without CEP treatment ( $[6.48 \pm 0.02] \times 10^{-4}$  vs.  $1.00 \pm 0.12$ ,  $t = 150.38$ ,  $P < 0.001$ ) at 72 h post-infection (p.i.). Plaque assays found no production of live viruses in media containing 10  $\mu\text{mol/L}$  CEP at 48 h p.i. Furthermore, we found CEP had potent anti-viral activities against both viral entry ( $0.46 \pm 0.12$ , vs.  $1.00 \pm 0.37$ ,  $t = 2.42$ ,  $P < 0.05$ ) and viral replication ( $[6.18 \pm 0.95] \times 10^{-4}$  vs.  $1.00 \pm 0.43$ ,  $t = 3.98$ ,  $P < 0.05$ ). **Conclusions:** Our pangolin coronavirus GX\_P2V is a workable model for 2019-nCoV research. CEP, selamectin, and mefloquine hydrochloride are potential drugs for treating 2019-nCoV infection. Our results strongly suggest that CEP is a wide-spectrum inhibitor of pan-betacoronavirus, and further study of CEP for treatment of 2019-nCoV infection is warranted.

## Publication Type

Journal article.

<216>

Accession Number

20203274036

Author

Moelling, K.; Broecker, F.

Title

Air microbiome and pollution: composition and potential effects on human health, including SARS coronavirus infection.

Source

Journal of Environmental and Public Health; 2020. 2020(1646943)111 ref.

Publisher

Hindawi

Location of Publisher

London

Country of Publication

UK

Abstract

Polluted air poses a significant threat to human health. Exposure to particulate matter (PM) and harmful gases contributes to cardiovascular and respiratory diseases, including allergies and obstructive lung disease. Air pollution may also be linked to cancer and reduced life expectancy. Uptake of PM has been shown to cause pathological changes in the intestinal microbiota in mice and humans. Less is known about the effects of pollution-associated microbiota on human health. Several recent studies described the microbiomes of urban and rural air samples, of the stratosphere and sand particles, which can be transported over long distances, as well as the air of indoor environments. Here, we summarize the current knowledge on airborne bacterial, viral, and fungal communities and discuss their potential consequences on human health. The current data suggest that bacterial pathogens are typically too sparse and short-lived in air to pose a significant risk for infecting healthy people. However, airborne fungal spores may exacerbate allergies and asthma. Little information is available on viruses including phages, and future studies are likely to detect known and novel viruses with a yet unknown impact on human health. Furthermore, varying experimental protocols have been employed in the recent microbiome and virome studies. Therefore, standardized methodologies will be required to allow for

better comparisons between studies. Air pollution has been linked to more severe outcomes of SARS (severe acute respiratory syndrome) coronavirus (SARS-CoV) infections. This may have contributed to severe SARS-CoV-2 outbreaks, especially those in China, Northern Italy, Iran, and New York City.

Publication Type

Journal article.

<217>

Accession Number

20203272179

Author

Levkoe, C. Z.; Knezevic, I.; Appavoo, D.; Moraes, A.; Scott, S.

Title

Serving up food studies online: teaching about "food from somewhere" from nowhere.

Source

Food, Culture and Society: An International Journal of Multidisciplinary Research; 2020. 23(3):434-453.  
many ref.

Publisher

Routledge

Location of Publisher

Abingdon

Country of Publication

UK

Abstract

Over the past decade, the popularity of food scholarship has led to an expansion of online food studies courses and programs. This push for online course offerings has been escalated due to the COVID-19 pandemic in early 2020. To date, much of the field has focused on examining the global concentration and integration of corporate food systems, often described as a "food from nowhere" regime. In contrast, the study of civil society organizations and social movements working toward more equitable and sustainable food systems points to the desire to (re)build a "food from somewhere" regime. How do

these ideas of de-spatialization and re-spatialization apply to teaching online food studies courses? In this reflective essay, five scholars and postsecondary instructors share experiences with online teaching about food systems. Our collective reflection reveals a number of benefits for postsecondary institutions, instructors, students, and pedagogical approaches. We also share key concerns, such as engaging students and encouraging participation, constraints for developing personal connections and the additional time and energy required to prepare and deliver courses. Beyond these opportunities and tensions, we point to the need for instructors to consider the implications of teaching about "food from somewhere" from nowhere. We offer these reflections to begin a much-needed conversation about.

#### Publication Type

Journal article.

<218>

#### Accession Number

20203278848

#### Author

Bijayeeta Deb; Hemal Shah; Suchi Goel

#### Title

Current global vaccine and drug efforts against COVID-19: pros and cons of bypassing animal trials.

#### Source

Journal of Biosciences; 2020. 45(82):(12 June 2020). 38 ref.

#### Publisher

Indian Academy of Sciences

#### Location of Publisher

Bengaluru

#### Country of Publication

India

#### Abstract

COVID-19 has become one of the biggest health concern, along with huge economic burden. With no clear remedies to treat the disease, doctors are repurposing drugs like chloroquine and remdesivir to

treat COVID-19 patients. In parallel, research institutes in collaboration with biotech companies have identified strategies to use viral proteins as vaccine candidates for COVID-19. Although this looks promising, they still need to pass the test of challenge studies in animal models. As various models for SARS-CoV-2 are under testing phase, biotech companies have bypassed animal studies and moved to Phase I clinical trials. In view of the present outbreak, this looks a justified approach, but the problem is that in the absence of animal studies, we can never predict the outcomes in humans. Since animal models are critical for vaccine development and SARS-CoV-2 has different transmission dynamics, in this review we compare different animal models of SARS-CoV-2 with humans for their pathogenic, immune response and transmission dynamics that make them ideal models for vaccine testing for COVID-19. Another issue of using animal model is the ethics of using animals for research; thus, we also discuss the pros and cons of using animals for vaccine development studies.

#### Publication Type

Journal article.

<219>

#### Accession Number

20203275749

#### Author

Morais, A. H. A.; Passos, T. S.; Maclel, B. L. L.; Silva-Maia, J. K. da

#### Title

Can probiotics and diet promote beneficial immune modulation and purine control in coronavirus infection?

#### Source

Nutrients; 2020. 12(6)many ref.

#### Publisher

MDPI AG

#### Location of Publisher

Basel

#### Country of Publication

Switzerland

## Abstract

Infection caused by the SARS-CoV-2 coronavirus worldwide has led the World Health Organization to declare a COVID-19 pandemic. Because there is no cure or treatment for this virus, it is emergingly urgent to find effective and validated methods to prevent and treat COVID-19 infection. In this context, alternatives related to nutritional therapy might help to control the infection. This narrative review proposes the importance and role of pro-biotics and diet as adjunct alternatives among the therapies available for the treatment of this new coronavirus. This review discusses the relationship between intestinal purine metabolism and the use of *Lactobacillus gasseri* and low-purine diets, particularly in individuals with hyperuricemia, as adjuvant nutritional therapies to improve the immune system and weaken viral replication, assisting in the treatment of COVID-19. These might be promising alternatives, in addition to many others that involve adequate intake of vitamins, minerals and bio-active compounds from food.

## Publication Type

Journal article.

<220>

## Accession Number

20203275742

## Author

Rodríguez-Pérez, C.; Molina-Montes, E.; Verardo, V.; Artacho, R.; García-Villanova, B.; Guerra-Hernández, E. J.; Ruiz-López, M. D.

## Title

Changes in dietary behaviours during the COVID-19 outbreak confinement in the Spanish COVIDiet study.

## Source

Nutrients; 2020. 12(6)39 ref.

## Publisher

MDPI AG

## Location of Publisher

Basel

## Country of Publication

Switzerland

## Abstract

The aim of this study was to evaluate whether dietary behaviours of the Spanish adult population were changed during the COVID-19 outbreak confinement. For that purpose, an online questionnaire, based on 44 items including socio-demographic data, Mediterranean diet (MedDiet) Adherence Screener (MEDAS) as a reference of a healthy diet, processed foods intake, changes in their usual food choices and weight gain was distributed using social media and snowball sampling. A total of 7514 participants (37% aged below 35 years, 70.6% female, 77.9% university-level education or higher) from all the Spanish territory completed the questionnaire. Results outlined healthier dietary behaviours during the confinement when compared to previous habits. Overall, the MEDAS score (ranging from 0 to 14, whereby higher a scoring reflects greater adherence to the MedDiet) increased significantly from 6.53 +/- 2 to 7.34 +/- 1.93 during the confinement. Multivariate logistic regression models, adjusted for age, gender, region and other variables, showed a statistically significant higher likelihood of changing the adherence to the MedDiet (towards an increase in adherence) in those persons who decreased the intake of fried foods, snacks, fast foods, red meat, pastries or sweet beverages, but increased MedDiet-related foods such as olive oil, vegetables, fruits or legumes during the confinement. COVID-19 confinement in Spain has led to the adoption of healthier dietary habits/behaviours in the studied population, as reflected by a higher adherence to the MedDiet. This improvement, if sustained in the long-term, could have a positive impact on the prevention of chronic diseases and COVID-19-related complications.

## Publication Type

Journal article.

<221>

## Accession Number

20203275730

## Author

Infusino, F.; Marazzato, M.; Mancone, M.; Fedele, F.; Mastroianni, C. M.; Severino, P.; Ceccarelli, G.; Santinelli, L.; Cavarretta, E.; Marullo, A. G. M.; Miraldi, F.; Carnevale, R.; Nocella, C.; Biondi-Zoccai, G.; Pagnini, C.; Schiavon, S.; Pugliese, F.; Frati, G.; D'Ettore, G.

## Title

Diet supplementation, probiotics, and nutraceuticals in SARS-CoV-2 infection: A scoping review.

Source

Nutrients; 2020. 12(6)150 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The severe acute respiratory syndrome coronavirus 2 (Sars-CoV-2) global pandemic is a devastating event that is causing thousands of victims every day around the world. One of the main reasons of the great impact of coronavirus disease 2019 (COVID-19) on society is its unexpected spread, which has not allowed an adequate preparation. The scientific community is fighting against time for the production of a vaccine, but it is difficult to place a safe and effective product on the market as fast as the virus is spreading. Similarly, for drugs that can directly interfere with viral pathways, their production times are long, despite the great efforts made. For these reasons, we analyzed the possible role of non-pharmacological substances such as supplements, probiotics, and nutraceuticals in reducing the risk of Sars-CoV-2 infection or mitigating the symptoms of COVID-19. These substances could have numerous advantages in the current circumstances, are generally easily available, and have negligible side effects if administered at the already used and tested dosages. Large scientific evidence supports the benefits that some bacterial and molecular products may exert on the immune response to respiratory viruses. These could also have a regulatory role in systemic inflammation or endothelial damage, which are two crucial aspects of COVID-19. However, there are no specific data available, and rigorous clinical trials should be conducted to confirm the putative benefits of diet supplementation, probiotics, and nutraceuticals in the current pandemic.

Publication Type

Journal article.

<222>

Accession Number



20203278805

Author

Fronza, R.; Lusic, M.; Schmidt, M.; Lucic, B.

Title

Spatial-temporal variations in atmospheric factors contribute to SARS-CoV-2 outbreak.

Source

Viruses; 2020. 12(6)45 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The global outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection causing coronavirus disease 2019 (COVID-19) has reached over five million confirmed cases worldwide, and numbers are still growing at a fast rate. Despite the wide outbreak of the infection, a remarkable asymmetry is observed in the number of cases and in the distribution of the severity of the COVID-19 symptoms in patients with respect to the countries/regions. In the early stages of a new pathogen outbreak, it is critical to understand the dynamics of the infection transmission, in order to follow contagion over time and project the epidemiological situation in the near future. While it is possible to reason that observed variation in the number and severity of cases stems from the initial number of infected individuals, the difference in the testing policies and social aspects of community transmissions, the factors that could explain high discrepancy in areas with a similar level of healthcare still remain unknown. Here, we introduce a binary classifier based on an artificial neural network that can help in explaining those differences and that can be used to support the design of containment policies. We found that SARS-CoV-2 infection frequency positively correlates with particulate air pollutants, and specifically with particulate matter 2.5 (PM<sub>2.5</sub>), while ozone gas is oppositely related with the number of infected individuals. We propose that atmospheric air pollutants could thus serve as surrogate markers to complement the infection outbreak anticipation.

Publication Type

Journal article.

<223>

Accession Number

20203278804

Author

Fernandes, R. S.; Freire, M. C. L. C.; Bueno, R. V.; Godoy, A. S.; Gil, L. H. V. G.; Oliva, G.

Title

Reporter replicons for antiviral drug discovery against positive single-stranded RNA viruses.

Source

Viruses; 2020. 12(6)many ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Single-stranded positive RNA ((+) ssRNA) viruses include several important human pathogens. Some members are responsible for large outbreaks, such as Zika virus, West Nile virus, SARS-CoV, and SARS-CoV-2, while others are endemic, causing an enormous global health burden. Since vaccines or specific treatments are not available for most viral infections, the discovery of direct-acting anti-virals (DAA) is an urgent need. Still, the low-throughput nature of and bio-safety concerns related to traditional antiviral assays hinders the discovery of new inhibitors. With the advances of reverse genetics, reporter replicon systems have become an alternative tool for the screening of DAAs. Herein, we review decades of the use of (+) ssRNA viruses replicon systems for the discovery of antiviral agents. We summarize different strategies used to develop those systems, as well as highlight some of the most promising inhibitors identified by the method. Despite the genetic alterations introduced, reporter replicons have been shown to be reliable systems for screening and identification of viral replication inhibitors and, therefore, an important tool for the discovery of new DAAs.

Publication Type

Journal article.

<224>

Accession Number

20203275712

Author

Zhao Ai; Li ZhongYu; Ke YaLei; Huo ShanShan; Ma YiDi; Zhang YuMei; Zhang Jian; Ren ZhongXia

Title

Dietary diversity among Chinese residents during the COVID-19 outbreak and its associated factors.

Source

Nutrients; 2020. 12(6)43 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

COVID-19, a Public Health Emergency of International Concern, has imposed enormous challenges on the health system, economy, and food supply and has substantially modified people's lifestyles. This study aimed to (1) explore the dietary diversity during the lockdown time in China and (2) examine factors associated with dietary diversity including socio-economic characteristics, sources for food and food purchases, and specific dietary behaviors responding to COVID-19 and isolation. A cross-sectional questionnaire-based survey was conducted online in March 2020. Multi-stage sampling was used to recruit participants living in Hubei Province and other parts of China. Dietary diversity was assessed using the Household Dietary Diversity Score (HDDS) and clustering analysis was used to categorize people with different propensities of methods for purchasing or obtaining foods. Logistic regression was used to model the associations among HDDS, participants' characteristics, approaches to purchase or obtain food, and behaviors adopted to cope with COVID-19. Results: A total of 1938 participants were included in the analysis. The overall mean HDDS was 9.7 +/- 2.1, and the median (25th, 75th) was 10 (8, 12). There were relatively low consumptions of fish, legumes, and miscellaneous foods (e.g., processed food like snacks and beverages). After adjusting for age, family income, and geographic regions, people living in places where laboratory confirmed COVID-19 cases were above 500 (ORadjusted = 0.79, 95%CI 0.65, 0.96), or living in Hubei Province (ORadjusted = 0.60, 95%CI 0.39, 0.93)

had a lower HDDS. During isolation time, the most common sources for food and food purchases were in-house storage and in person grocery shopping. More than half of the participants (55.9%) purchased food at least once via online ordering and delivery services. There was no significant difference in HDDS among people with distinct dependences on different ways to obtain or purchase food (i.e., dependence on in-person grocery shopping, dependence on both in-house storage and in-person grocery shopping, or dependence on online food purchasing). We also identified a total of 37.7% participants who consumed certain foods or nutritional supplements to cope with COVID-19, which included vitamin C, probiotics, other dietary supplements, alcohol, and vinegar. People who reported these specific dietary behaviors had a significantly higher HDDS (OR<sub>adjusted</sub> = 1.23, 95%CI 1.02, 1.45) than those who did not do so. This study revealed an overall good dietary diversity among the studied Chinese residents during the COVID-19 pandemic. However, we observed a lower dietary diversity among people living in areas with a high number of confirmed COVID-19 cases. Online ordering and delivery services were popular and could serve as a feasible method to obtain and purchase food, contributing to ensure diversified diets during the time of lockdown. Certain dietary behaviors associated with COVID-19 were also identified and had significant impacts on HDDS.

#### Publication Type

Journal article.

<225>

#### Accession Number

20203285152

#### Author

Venkatesh Pooladanda; Sowjanya Thatikonda; Chandraiah Godugu

#### Title

The current understanding and potential therapeutic options to combat COVID-19.

#### Source

Life Sciences; 2020. 254210 ref.

#### Publisher

Elsevier

#### Location of Publisher

New York

## Country of Publication

USA

## Abstract

The ongoing wreaking global outbreak of the novel human beta coronavirus (CoV) pathogen was presumed to be from a seafood wholesale market in Wuhan, China, belongs to the Coronaviridae family in the Nidovirales order. The virus is highly contagious with potential human-human transmission which was named as the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), has spread across six continents and emerged as a global pandemic in short span with alarming levels of spread and severity. This virus associated symptoms and infectious respiratory illness is designated as coronavirus disease 19 (COVID-19). The SARS-CoV-2 possesses enveloped club-like spike protein projections with positive-sense large RNA genome and has a unique replication strategy. This virus was believed to have zoonotic origin with genetical identity to bat and pangolin CoV. In the current review, we introduce a general overview about the human CoVs and the associated diseases, the origin, structure, replication and key clinical events that occur in the COVID-19 pathogenicity. Furthermore, we focused on possible therapeutic options such as repurposing drugs including antimalarials, antivirals, antiparasitic drugs, and anti-HIV drugs, as well as monoclonal antibodies, vaccines as potential treatment options. Also we have summarized the latest research progress on the usage of stem cell therapy, human convalescent serum, interferon's, in the treatment of COVID-19.

## Publication Type

Journal article.

<226>

## Accession Number

20203285149

## Author

Patil, V. M.; Shipra Singhal; Neeraj Masand

## Title

A systematic review on use of aminoquinolines for the therapeutic management of COVID-19: efficacy, safety and clinical trials.

## Source

Life Sciences; 2020. 254142 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

Recent global outbreak of the pandemic caused by coronavirus (COVID-19) emphasizes the urgent need for novel antiviral therapeutics. It can be supplemented by utilization of efficient and validated drug discovery approaches such as drug repurposing/repositioning. The well reported and clinically used anti-malarial aminoquinoline drugs (chloroquine and hydroxychloroquine) have shown potential to be repurposed to control the present pandemic by inhibition of COVID-19. The review elaborates the mechanism of action, safety (side effects, adverse effects, toxicity) and details of clinical trials for chloroquine and hydroxychloroquine to benefit the clinicians, medicinal chemist, pharmacologist actively involved in controlling the pandemic and to provide therapeutics for the treatment of COVID-19 infection.

Publication Type

Journal article.

<227>

Accession Number

20203286324

Author

Pillay, L.; Rensburg, D. C. C. J. van; Rensburg, A. J. van; Ramagole, D. A.; Holtzhausen, L.; Dijkstra, H. P.; Cronje, T.

Title

Nowhere to hide: the significant impact of coronavirus disease 2019 (COVID-19) measures on elite and semi-elite South African athletes. (Special Issue: COVID19 - moving forward.)

Source

Publisher

Elsevier Australia PLC

Location of Publisher

Marrickville

Country of Publication

Australia

Abstract

Objectives: To describe the perceptions of South African elite and semi-elite athletes on return to sport (RTS); maintenance of physical conditioning and other activities; sleep; nutrition; mental health; healthcare access; and knowledge of coronavirus disease 2019 (COVID-19). Design: Cross-sectional study. Methods: A Google Forms survey was distributed to athletes from 15 sports in the final phase (last week of April 2020) of the level 5 lockdown period. Descriptive statistics were used to describe player demographic data. Chi-squared tests investigated significance ( $p < 0.05$ ) between observed and expected values and explored sex differences. Post hoc tests with a Bonferroni adjustment were included where applicable. Results 67% of the 692 respondents were males. The majority (56%) expected RTS after 1-6 months. Most athletes trained alone (61%;  $p < 0.0001$ ), daily (61%;  $p < 0.0001$ ) at moderate intensity (58%;  $p < 0.0001$ ) and for 30-60 min (72%). During leisure time athletes preferred sedentary above active behaviour ( $p < 0.0001$ ). Sleep patterns changed significantly (79%;  $p < 0.0001$ ). A significant number of athletes consumed excessive amounts of carbohydrates (76%;  $p < 0.0001$ ; males 73%; females 80%). Many athletes felt depressed (52%), and required motivation to keep active (55%). Most had access to healthcare during lockdown (80%) and knew proceedings when suspecting COVID-19 (92%). Conclusions: COVID-19 had physical, nutritional and psychological consequences that may impact on the safe RTS and general health of athletes. Lost opportunities and uncertain financial and sporting futures may have significant effects on athletes and the sports industry. Government and sporting federations must support athletes and develop and implement guidelines to reduce the risk in a COVID-19 environment.

Publication Type

Journal article.

<228>

Accession Number

20203286323

Author

Mooney, M.; Perera, N. K. P.; Broderick, C.; Saw, R.; Wallett, A.; Drew, M.; Waddington, G.; Hughes, D.

Title

A deep dive into testing and management of COVID-19 for Australian high performance and professional sport. (Special Issue: COVID19 - moving forward.)

Source

Journal of Science and Medicine in Sport; 2020. 23(7):664-669. 42 ref.

Publisher

Elsevier Australia PLC

Location of Publisher

Marrickville

Country of Publication

Australia

Abstract

The purpose of testing for any communicable disease is to support clinicians in the diagnosis and management of individual patients and to describe transmission dynamics. The novel coronavirus is formally named SARS-CoV-2 and the clinical disease state resulting from an infection is known as COVID-19. Control of the COVID-19 pandemic requires clinicians, epidemiologists, and public health officials to utilise the most comprehensive, accurate and timely information available to manage the rapidly evolving COVID-19 environment. High performance sport is a unique context that may look towards comprehensive testing as a means of risk mitigation. Characteristics of the common testing options are discussed including the circumstances where additional testing may be of benefit and considerations for the associated risks. Finally, a review of the available technology that could be considered for use by medical staff at the point of care (PoC) in a high-performance sporting context is included.

Publication Type

Journal article.

<229>



Accession Number

20203286322

Author

Hughes, D.; Saw, R.; Perera, N. K. P.; Mooney, M.; Wallett, A.; Cooke, J.; Coatsworth, N.; Broderick, C.

Title

The Australian Institute Of Sport framework for rebooting sport in a COVID-19 environment. (Special Issue: COVID19 - moving forward.)

Source

Journal of Science and Medicine in Sport; 2020. 23(7):639-663. 136 ref.

Publisher

Elsevier Australia PLC

Location of Publisher

Marrickville

Country of Publication

Australia

Abstract

Sport makes an important contribution to the physical, psychological and emotional well-being of Australians. The economic contribution of sport is equivalent to 2-3% of Gross Domestic Product (GDP). The COVID-19 pandemic has had devastating effects on communities globally, leading to significant restrictions on all sectors of society, including sport. Resumption of sport can significantly contribute to the re-establishment of normality in Australian society. The Australian Institute of Sport (AIS), in consultation with sport partners (National Institute Network (NIN) Directors, NIN Chief Medical Officers (CMOs), National Sporting Organisation (NSO) Presidents, NSO Performance Directors and NSO CMOs), has developed a framework to inform the resumption of sport. National Principles for Resumption of Sport were used as a guide in the development of 'the AIS Framework for Rebooting Sport in a COVID-19 Environment' (the AIS Framework); and based on current best evidence, and guidelines from the Australian Federal Government, extrapolated into the sporting context by specialists in sport and exercise medicine, infectious diseases and public health. The principles outlined in this document apply to high performance/professional, community and individual passive (non-contact) sport. The AIS Framework is a timely tool of minimum baseline of standards, for 'how' reintroduction of sport activity will occur in a cautious and methodical manner, based on the best available evidence to optimise athlete and community safety. Decisions regarding the timing of resumption (the 'when') of sporting activity must be made in close consultation with Federal, State/Territory and/or Local Public Health Authorities. The priority at all times must be to preserve public health, minimising the risk of community transmission.

Publication Type

Journal article.

<230>

Accession Number

20203286321

Author

Waddington, G. S.

Title

Special Issue: COVID19 - moving forward. (Special Issue: COVID19 - moving forward.)

Source

Journal of Science and Medicine in Sport; 2020. 23(7):633-679.

Publisher

Elsevier Australia PLC

Location of Publisher

Marrickville

Country of Publication

Australia

Abstract

This special issue focuses on the way forward for Australian sport under the new normal of the COVID-19 environment. The framework developed by the Australian Institute of Sport for rebooting sport in a COVID-19 environment is presented. Other articles deal with the current COVID-19 testing environment and the impact and understanding of COVID-19 from the athletes' perspective.

Publication Type

Journal issue.

<231>

Accession Number

20203283232

Author

Desbureaux, S.; Kaota, A.; Lunanga, E.; Stoop, N.; Verpoorten, M.

Title

Covid-19 vs. Ebola: impact on households and SMEs in Nord Kivu, DR Congo.

Source

Working Papers - Institute of Development Policy (IOB); 2020. (2020.03):22 pp. 43 ref.

Publisher

University of Antwerp

Location of Publisher

Antwerp

Country of Publication

Belgium

Abstract

Eastern Democratic Republic of Congo is currently facing two major infectious disease outbreaks: Covid-19 and Ebola Virus Disease (EVD). We highlight large differences in the socioeconomic impact of these two outbreaks. The data come from a phone survey that we conducted in May 2020 with 456 households and 144 small firms from a megacity and a rural commune in the province of Nord Kivu. While 3,000 EVD cases and 2,000 EVD deaths were confirmed since August 2018, self-reported impacts of EVD on revenues, access to food and behaviour were limited. In contrast, only 43 Covid19 cases were reported as of May 30th but respondents reported sizable effects on livelihoods, especially in the large urban hub, and in part driven by substantial job losses. Our results show that different infectious disease outbreaks can have very different effects, largely unrelated to case numbers of the disease. Moderately virulent but highly transmissible viruses such as Covid-19 can trigger a steep economic downturn, especially in areas with high economic interconnectedness, reflecting both national and international policies to contain the pandemic.

Publication Type

Bulletin.

<232>

Accession Number

20203280102

Author

Pozharitskaya, O. N.; Obluchinskaya, E. D.; Shikov, A. N.

Title

Mechanisms of bioactivities of fucoidan from the brown seaweed *Fucus vesiculosus* L. of the Barents Sea.

Source

Marine Drugs; 2020. 18(5)81 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The aim of this study was to elucidate some mechanisms of radical scavenging and the anti-inflammatory, anti-hyperglycemic, and anti-coagulant bioactivities of high molecular weight fucoidan from *Fucus vesiculosus* in several in vitro models. Fucoidan has displayed potent 1, 1-diphenyl-2-picrylhydrazil radical scavenging and reduction power activities. It significantly inhibits the cyclooxygenase-2 (COX-2) enzyme (IC<sub>50</sub> 4.3 μg mL<sup>-1</sup>) with a greater selectivity index (lg(IC<sub>80</sub> COX-2/IC<sub>80</sub>COX-1), -1.55) than the synthetic non-steroidal anti-inflammatory drug indomethacin (lg(IC<sub>80</sub> COX-2/IC<sub>80</sub>COX-1), -0.09). A concentration-dependent inhibition of hyaluronidase enzyme with an IC<sub>50</sub> of 2.9 μg mL<sup>-1</sup> was observed. Fucoidan attenuated the lipopolysaccharide-induced expression of mitogen-activated protein kinase p38. Our findings suggest that the inhibition of dipeptidyl peptidase-IV (DPP-IV) (IC<sub>50</sub> 1.11 μg mL<sup>-1</sup>) is one of the possible mechanisms involved in the anti-hyperglycemic activity of fucoidan. At a concentration of 3.2 μg mL<sup>-1</sup>, fucoidan prolongs the activated partial thromboplastin time and thrombin time by 1.5-fold and 2.5-fold compared with a control, respectively. A significant increase of prothrombin time was observed after the concentration of fucoidan was increased above 80 μg mL<sup>-1</sup>. This evidenced that fucoidan may have an effect on intrinsic/common pathways and little effect on the extrinsic mechanism. This study sheds light on the multiple pathways of the bioactivities of

fucoidan. As far as we know, the inhibition of hyaluronidase and DPP-IV by high molecular fucoidan was studied for the first time in this work. Our results and literature data suggest that molecular weight, sulfate content, fucose content, and polyphenols may contribute to these activities. It seems that high molecular weight fucoidan has promising therapeutic applications in different pharmacological settings. Anti-oxidant, anti-inflammatory and anti-coagulant drugs have been used for the management of complications of COVID19. Taken as a whole, fucoidan could be considered as a prospective candidate for the treatment of patients with COVID19; however, additional research in this field is required.

Publication Type

Journal article.

<233>

Accession Number

20203285631

Author

Mabenge, M. S.

Title

Management of obstetric patients with COVID-19.

Source

Obstetrics and Gynaecology Forum; 2020. 30(2):10-12.

Publisher

In-House Publications

Location of Publisher

Craighall

Country of Publication

South Africa

Abstract

South Africa and the world at large are faced with a devastating crisis and the growing pandemic associated with COVID-19 disease. While South Africa is still dealing with other health challenges namely TB and HIV, an added burden of infection with the novel SARS-CoV-2, namely severe acute

respiratory syndrome coronavirus 2 infection, is adding to our challenges. This zoonotic infection has its origins in Wuhan, a city in the Hubei Province of China and causes a severe form of pneumonia which has proven fatal in some patients. These clusters of pneumonia was described on the 31 of December 2019 by the World Health organization (WHO) and the viral aetiology identified in February 2020.

Publication Type

Journal article.

<234>

Accession Number

20203283756

Author

Harzheim, E.; Martins, C.; Wollmann, L.; Pedebos, L. A.; Faller, L. de A.; Marques, M. D. C.; Minei, T. S. S.; Cunha, C. R. H. da; Telles, L. F.; Moura, L. J. N. de; Leal, M. H.; Rodrigues, A. S.; Rech, M. R. A.; D'Avila, O. P.

Title

Federal actions to support and strengthen local efforts to combat COVID-19: primary health care (PHC) in the driver's seat. (Special Issue: COVID-19.)

Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2493-2497. 10 ref.

Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The Ministry of Health, through the Primary Health Care Secretariat and in partnership with the Secretariat of Health Surveillance, built and implemented Primary Health Care (PHC) strategies within the scope of support to local managers and in partnership with the National Health Secretaries Council

(CONASS) and the National Municipal Health Secretariats Council (CONASEMS) to combat COVID-19. These actions have PHC as the main responsible for several areas and physical, human, and financial resources, as well as allow boosting national progress towards the use of information and communication technologies and new partnerships for conducting research.

Publication Type

Journal article.

<235>

Accession Number

20203283752

Author

Pedrosa, N. L.; Albuquerque, N. L. S. de

Title

Spatial analysis of COVID-19 cases and intensive care beds in the State of Ceara, Brazil. (Special Issue: COVID-19.)

Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2461-2468. 15 ref.

Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The geographical distribution of COVID-19 through Geographic Information Systems resources is hardly explored. We aimed to analyze the distribution of COVID-19 cases and the exclusive intensive care beds in the state of Ceara, Brazil. This is an ecological study with the geographic distribution of the case detection coefficient in 184 municipalities. Maps of crude and estimated values (global and local Bayesian method) were developed, calculating the Moran index and using BoxMap and MoranMap.

Intensive care beds were distributed through geolocalized points. In total, 3,000 cases and 459 beds were studied. The highest rates were found in the capital Fortaleza, the Metropolitan Region (MR), and the south of this region. A positive spatial autocorrelation has been identified in the local Bayesian rate ( $I = 0.66$ ). The distribution of beds superimposed on the BoxMap shows clusters with a HighHigh pattern of number of beds (capital, MR, northwestern part). However, a similar pattern is found in the far east or transition areas with insufficient beds. The MoranMap shows clusters statistically significant in the state. COVID-19 interiorization in Ceara requires contingency measures geared to the distribution of specific intensive care beds for COVID-19 cases in order to meet the demand.

#### Publication Type

Journal article.

<236>

#### Accession Number

20203283751

#### Author

Castro-De-Araujo, L. F. S.; Machado, D. B.

#### Title

Impact of COVID-19 on mental health in a low and middle-income country. (Special Issue: COVID-19.)

#### Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2457-2460. 7 ref.

#### Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

#### Location of Publisher

Rio de Janeiro

#### Country of Publication

Brazil

#### Abstract

Mental disorders (MD) are commonly comorbid with cardiovascular, metabolic, and some infectious diseases. Since the current SARSCoV- 2 epidemic is affecting the most multimorbid individuals, we



might expect that the epidemic will be particularly problematic for people with MD. Understanding the burden of an outbreak on mental health is fundamental to effective action towards containing the spread of the disease, as psychopathology might reduce endurance during the lockdown. This can potentially reduce adherence to ongoing treatment resulting in avoidable recurrence of a disorder. Additionally, there is the stress caused by the eminent risk of infection or economic uncertainty, especially in low-middle income settings. This is an overview on the expected influence of the COVID-19 on mental health from a research group that has not long ago been involved in the Zika epidemic. It aims to discuss the effects of the pandemic on a Low and Middle- Income country (LMIC), Brazil.

Publication Type

Journal article.

<237>

Accession Number

20203283750

Author

Johnson, M. C.; Saletti-Cuesta, L.; Tumas, N.

Title

Emotions, concerns and reflections regarding the COVID-19 pandemic in Argentina. (Special Issue: COVID-19.) [Spanish]

Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2447-2456. 28 ref.

Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The scope of this work is to explore the feelings and expectations that COVID-19 has generated in Argentina during the first stage of the pandemic. A survey of the World Health Organization adapted to the local context was applied. Open-ended questions were included to study people's feelings about COVID-19, and content analysis was subsequently conducted. In terms of results, it is revealed that the population surveyed feels uncertainty, fear and anguish, albeit a feeling of responsibility and care in the face of COVID-19 also emerges. Moreover, positive feelings regarding society stand out as an achievement of social interdependence. The results obtained show that the impact on mental health differs in accordance with gender, educational level, and perceived comfort in the home. The study concludes that the emotional and bonding dimensions of people are central to confronting the COVID-19 pandemic in Argentina. It is recommended that these dimensions, as well as their subjective and differential social impact among the different population groups, should be considered in the planning of policies to address the COVID-19 pandemic.

Publication Type

Journal article.

<238>

Accession Number

20203283748

Author

Bezerra, A. C. V.; Silva, C. E. M. da; Soares, F. R. G.; Silva, J. A. M. da

Title

Factors associated with people's behavior in social isolation during the COVID-19 pandemic. (Special Issue: COVID-19.)

Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2411-2421. 31 ref.

Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

## Abstract

This paper presents the results of an opinion poll conducted in Brazil on the perception of social isolation during the COVID-19 pandemic. The questionnaire was prepared on Google Forms, disseminated through social networks, with questions about the socioeconomic profile and factors associated with isolation. A non-probabilistic sample was obtained with 16,440 respondents. Data were analyzed using the Stata 13 software. Social interaction was the most affected aspect among people with higher education and income (45.8%), and financial problems caused a more significant impact (35%) among people with low income and education. Those who practice some physical activity showed lower levels of stress 13%, as well as greater normality in sleep 50.3%. People who reported living in worse habitability conditions reported willingness to remain isolated for less time, 73.9%. Among non-isolated people (10.7% of the total sample), 75.8% believe that social isolation will reduce the number of victims of COVID-19. We conclude, based on this sample, that the perception about social isolation as a pandemic mitigation action varies by income, education, age, and gender. However, most believe that it is the most appropriate control measure and are willing to wait as long as necessary to contribute to the fight against COVID-19.

## Publication Type

Journal article.

<239>

## Accession Number

20203283747

## Author

Hallal, P. C.

## Title

Worldwide differences in COVID-19-related mortality. (Special Issue: COVID-19.)

## Source

Ciencia & Saude Coletiva; 2020. 25(Suppl. 1):2403-2410. 7 ref.

## Publisher

Associacao Brasileira de Pos-Graduacao em Saude Coletiva

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

Mortality statistics due to COVID-19 worldwide are compared, by adjusting for the size of the population and the stage of the pandemic. Data from the European Centre for Disease Control and Prevention, and Our World in Data websites were used. Analyses are based on number of deaths per one million inhabitants. In order to account for the stage of the pandemic, the baseline date was defined as the day in which the 10th death was reported. The analyses included 78 countries and territories which reported 10 or more deaths by April 9. On day 10, India had 0.06 deaths per million, Belgium had 30.46 and San Marino 618.78. On day 20, India had 0.27 deaths per million, China had 0.71 and Spain 139.62. On day 30, four Asian countries had the lowest mortality figures, whereas eight European countries had the highest ones. In Italy and Spain, mortality on day 40 was greater than 250 per million, whereas in China and South Korea, mortality was below 4 per million. Mortality on day 10 was moderately correlated with life expectancy, but not with population density. Asian countries presented much lower mortality figures as compared to European ones. Life expectancy was found to be correlated with mortality.

Publication Type

Journal article.

<240>

Accession Number

20203283709

Author

Bhattarai, K.; Yousef, M.; Greife, A.; Narahariseti, S. C. S.

Title

Influence of topography on sustainable land management: an analysis of socioeconomic and ecodemographic conditions of Nepal.

Source

Agriculture; 2020. 10(6)many ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Around 6 to 8 million young Nepali, working abroad as migrant laborers, are contributing remittances of about 28% of the annual gross domestic product of Nepal. However, due to the recent COVID-19 pandemic, Nepal is not only going to lose a significant portion of remittances but will also face the Herculean task of creating employment for the workforce who may return to Nepal. This paper discusses sustainable options for the Nepali government to help create employment for its citizens in Nepal through the revitalization of fallow lands and other potential agricultural areas, which are below a 15degrees slope. The land-use and land-cover data for the 1980s, 1990s, 2000s, and 2010s are derived from the classification of satellite images. These classified and resampled 30 m 30 m images along with the 30 30 melevation data are brought to the Kibana Platform within the Amazon Web Service (AWS) to analyze the status of land-use and -cover conditions for the 1980 to 2010 period within nine different slope classes at an interval of 5degrees slope. Our findings suggest there have been massive conversions of forested areas for agricultural land at lower slope areas between 1980 and 2000, but the trend began to reverse from 2000 to 2010 as trees started coming back to the fallow agricultural lands. This happened mainly because, during the countrywide Maoist insurgency period (1996-2006), many youth first took shelter in various urban centers away from their natal homes and then emigrated to foreign countries for remittance purposes. As a result, many farmlands became fallow and barren, and agricultural productivity decreased. Consequently, Nepal, an exporter of rice and pulses until the late 1980s, started importing food grain each year. The major goals of this research are to explore: (a) if Nepal can self-sustain in agricultural products by utilizing potential agricultural lands below a 15degrees slope in various geographic regions; (b) the means for productively engaging the youth returning to the country; and (c) methods of reinvigorating the ecosystem services of Nepal to support sustainable development.

Publication Type

Journal article.

<241>

Accession Number

20203271241

Author

Sagaon-Teyssier, L.; Yattassaye, A.; Bourrelly, M.; Keita, B. D.; Spire, B.

Title

The COVID-19 response must integrate people living with HIV needs in Sub-Saharan Africa: the case of Mali.

Source

Tropical Medicine and Health; 2020. 48(41):(03 June 2020). 13 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The first COVID-19 cases in Mali were reported almost 1 month after the first case in the African continent. However, the outbreak continues to spread faster there than in other countries which, along with Mali, successfully tackled the 2014 Ebola outbreak in Africa. Given this context, specific actions targeting people living with HIV (PLWH) are needed to reinforce prevention. Community-based involvement is crucial to ensure continuity of care and treatment for PLWH. Furthermore, the health of frontline healthcare workers must take priority in any actions taken. The long-established trustful relationship between NGOs and PLWH in Mali is indispensable to disseminate key messages about COVID-19.

Publication Type

Journal article.

<242>

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Accession Number

20203258186

Author

Claire, H.

Title

COVID-19: implications of self-isolation and social distancing for the emotional and behavioural health of cats.

Source

Companion Animal; 2020. 25(5):138-143.

Publisher

MA Healthcare Limited

Location of Publisher

London

Country of Publication

UK

Abstract

As the progress of the COVID-19 pandemic proves slow to respond to control measures, the ongoing advice for humans to maintain social isolation and social distancing continues. The media has paid considerable attention to the potential cost of such restrictions in terms of human mental and behavioural health but less attention has been paid to the potential welfare cost of 'lock-down' and 'self-isolation' to the pet population. This article considers the immediate consequences of reduced access to environmental and social stimulation outside the home and increased social exposure within the home to cats, as well as considering some of the potential long-term effects of such measures.

Publication Type

Journal article.

<243>

Accession Number

20203255070

Author

Ma Li; Zou ShiYue; Zhang SuYing; Wang Xin; He LingYun; Xi Ying; Xie Min; He DongMei; Xu XueQiong

Title

Nursing experience of COVID-19 prevention and control in a regional central hospital in a non-Wuhan area in China.

Source

Iranian Journal of Public Health; 2020. 49(6):1169-1172. 4 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

The objective of the article was to outline the practical nursing management strategies successfully followed in a general tertiary hospital involved in the of pre-screening 195458 patients, treatment of 316 suspected cases, and 4 confirmed COVID-19 cases from December 2019 to Mar 29, 2020, with no infection of medical staff. During the outbreak, the orderly management and distribution of personal protective equipment (PPE) were essential for COVID-19 prevention and control. A two-level warehouse management system for PPE was established. The hospital-level warehouse of the isolation hospital stored medical supplies. Input/output forms were used to record the usage of PPE. The wardlevel warehouse was equipped with daily requirements of protective supplies. Medical staff followed the policies and procedures of isolation precautions to use PPE. The nurse in charge reported the quantity of PPE used so that replenishment could be provided in time. Reasonable distribution and usage of PPE could be obtained through the two-level warehouse management system.

Publication Type

Correspondence.

<244>



Accession Number

20203256757

Author

Yoo HanSang; Yoo DongWan

Title

COVID-19 and veterinarians for one health, zoonotic- and reverse-zoonotic transmissions.

Source

Journal of Veterinary Science; 2020. 21(3)11 ref.

Publisher

Korean Society of Veterinary Science

Location of Publisher

Seoul

Country of Publication

Korea Republic

Abstract

A novel coronavirus emerged in human populations and spread rapidly to cause the global coronavirus disease 2019 pandemic. Although the origin of the associated virus (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]) remains unclear, genetic evidence suggests that bats are a reservoir host of the virus, and pangolins are a probable intermediate. SARS-CoV-2 has crossed the species barrier to infect humans and other animal species, and infected humans can facilitate reverse-zoonotic transmission to animals. Considering the rapidly changing interconnections among people, animals, and ecosystems, traditional roles of veterinarians should evolve to include transdisciplinary roles.

Publication Type

Journal article.

<245>

Accession Number

20203269243

Author

Khan, T. M.

Title

Preventive and control measures of COVID-19 patients: a review. (Special Issue: Newly emerging COVID19 infectious disease.)

Source

Bangladesh Journal of Infectious Diseases; 2020. 7(Supplementary Issue):41-44. 13 ref.

Publisher

Bangladesh Infection Research Association

Location of Publisher

Dhaka

Country of Publication

Bangladesh

Abstract

Covid19 is an acute respiratory disease which is caused by a novel coronavirus. This virus has been found in January 7, 2020 from China. The virus was previously known as 2019-nCoV. This particular virus is high chance of spread. Preventive measures are very essential for the health care workers. Proper preventive measures can only be applied to stop the spread of this virus.

Publication Type

Journal article.

<246>

Accession Number

20203264219

Author

Alexander, H. G.; Jacob, U.; Hippe, B.; Karlic, H.

Title

Mechanisms of selected functional foods against viral infections with a view on COVID-19: mini review.

Source

Functional Foods in Health and Disease; 2020. 10(5):195-209. 136 ref.

Publisher

Food Science Publisher

Location of Publisher

Denton

Country of Publication

USA

Abstract

Following research obtained from the previous SARS and MERS outbreaks, we've gained knowledge about the mechanisms of bioactive plant ingredients against the attachment and replication of COVID-19 as well as overshooting immune responses. This could be used for designing COVID-19 trials utilizing bioactive compounds. The receptors for SARS, ACE-2, and CD26 show associations with mechanisms that regulate human senescence. Several functional foods interact with the epigenetic regulation of viral infection and mechanisms of senescence. This review concentrates on the link between bioactive plant ingredients and their activities against mechanisms of viral infections. Keywords: COVID-19, Epigenetic, Quercetin, Curcumin, Epigallocatechin gallate, Phloretin, Berberine.

Publication Type

Journal article.

<247>

Accession Number

20203268596

Author

Christidis, P.; Christodoulou, A.

Title

The predictive capacity of air travel patterns during the global spread of the COVID-19 pandemic: risk, uncertainty and randomness.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)35 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Air travel has a decisive role in the spread of infectious diseases at the global level. We present a methodology applied during the early stages of the COVID-19 pandemic that uses detailed aviation data at the final destination level in order to measure the risk of the disease spreading outside China. The approach proved to be successful in terms of identifying countries with a high risk of infected travellers and as a tool to monitor the evolution of the pandemic in different countries. The high number of undetected or asymptomatic cases of COVID-19, however, limits the capacity of the approach to model the full dynamics. As a result, the risk for countries with a low number of passengers from Hubei province appeared as low. Globalization and international aviation connectivity allow travel times that are much shorter than the incubation period of infectious diseases, a fact that raises the question of how to react in a potential new pandemic.

Publication Type

Journal article.

<248>

Accession Number

20203268594

Author

You HeYuan; Wu Xin; Guo XuXu

Title

Distribution of COVID-19 morbidity rate in association with social and economic factors in Wuhan, China: implications for urban development.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)31 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Social and economic factors relate to the prevention and control of infectious diseases. The purpose of this paper was to assess the distribution of COVID-19 morbidity rate in association with social and economic factors and discuss the implications for urban development that help to control infectious diseases. This study was a cross-sectional study. In this study, social and economic factors were classified into three dimensions: built environment, economic activities, and public service status. The method applied in this study was the spatial regression analysis. In the 13 districts in Wuhan, the spatial regression analysis was applied. The results showed that: (1) increasing population density, construction land area proportion, value-added of tertiary industry per unit of land area, total retail sales of consumer goods per unit of land area, public green space density, aged population density were associated with an increased COVID-19 morbidity rate due to the positive characteristics of estimated coefficients of these variables. (2) increasing average building scale, GDP per unit of land area, and hospital density were associated with a decreased COVID-19 morbidity rate due to the negative characteristics of estimated coefficients of these variables. It was concluded that it is possible to control infectious diseases, such as COVID-19, by adjusting social and economic factors. We should guide urban development to improve human health.

Publication Type

Journal article.

<249>

Accession Number

20203268557

Author

Zhu Hui; Deng FuMin

Title

How to influence rural tourism intention by risk knowledge during COVID-19 containment in China: mediating role of risk perception and attitude.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)100 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

With both cost and safety taken into account in the context of the life-threatening COVID-19 pandemic globally, rural tourism is expected to be the top choice for Chinese residents for relaxation and enhancing parent-child relationships. In this paper, a structural equation (SEM) model was proposed to compare risk knowledge, risk perception, risk aversion attitudes and behavioral intentions towards rural tourism. According to the empirical results, there was a large proportion of tourists showing preference for rural tourism recently. Potential participants in rural tourism paid most attention to the performance realization and time cost of scenic spots, while the psycho-social risk posed by COVID-19 had little impact. The inherent risk nature of risk aversion attitudes made knowledge of the pneumonia risk less effective in reducing tourists' intentions, while knowledge of the pneumonia risk was more effective in alleviating the risk perception that potential tourists have towards rural tourism. With regard to travel intention and recommendation intention of rural tourism, the negative impacts of risk aversion attitude were more considerable compared to risk perception. Meanwhile, the parallel mediating effect of risk perception and risk aversion attitude in rural tourism needed to be taken into consideration together.

Publication Type

Journal article.

<250>

Accession Number

20203268550

Author

Hong Yan; Cai GangWei; Mo ZhouJin; Gao WeiJun; Xu Lei; Jiang YuanXing; Jiang JinMing

Title

The impact of COVID-19 on tourist satisfaction with B&B in Zhejiang, China: an importance-performance analysis.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)119 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

After the outbreak of COVID-19 (especially in the stage of tourism recovery), the bed and breakfast (B&B) tourism industry faced big challenges in improving its health strategies. B&Bs are very important for the tourism industry in China and many other countries. However, few studies have studied the impact of B&Bs, under COVID-19, on tourism in China. Our paper is among one of the first studies to investigate the impact of COVID-19 on tourist satisfaction with B&Bs in China. The work/travel restrictions started from 20 January 2020, and work/after travel resumed from 20 February 2020 in Zhejiang, China. Data were collected from 588 tourists (who experienced B&Bs in Zhejiang, China) from a WeChat online survey, from 1 March to 15 March 2020. The current study attempted to fill the gap by studying the changing tourist satisfaction levels with B&Bs before/after COVID-19. Moreover, some suggestions are given to the B&B industry for tourism resumption after COVID-19 by an importance-performance analysis (IPA).

Publication Type

Journal article.

<251>

Accession Number

20203265405

Author

Yang XinPing; Pang MingFan; Liang ZuoRu; Dong XiaoPing; Lyu Ke; Shi GuoQing; Shi XiaoMing; Xi JingJing; Feng LuZhao; Qi XiaoPeng; Li XinHua

Title

Assessment for the COVID-19 outbreak situation and importation risk of the 14 land-bordering countries of China. [Chinese]

Source

Disease Surveillance; 2020. 35(4):283-287. 9 ref.

Publisher

Editorial Board of Disease Surveillance

Location of Publisher

Beijing

Country of Publication

China

Abstract

Objective: To analyze the COVID-19 epidemics in 14 land-bordering countries of China, evaluate the risk of imported cases to China, and provide evidence for the further prevention of imported COVID-19. Methods: The public information about COVID-19 epidemics in these countries were collected from their government websites, mainstream media, relevant professional portals and officially published literature, and the SEIR mathematic modeling of infectious diseases and the COVID-19 Government Response Stringency Index published by the University of Oxford were used for an analysis on the incidences of COVID-19 and tests of 2019-nCoV, the numbers of overseas Chinese, the population and health resources, and control measures in these countries. Results: Generally, the testing coverage rates of 2019-nCoV in these land-bordering countries are low, and there might be a large number of undiagnosed and unreported cases. At present, Russia has the highest case number, with a relatively low COVID-19 Government Response Stringency Index, as well as a high proportion of elderly population, so there might be a great potential demand for intensive care in the future. India and Pakistan, which have a large population and fewer healthcare workers, are second only to Russia in the number of cases, and might face a shortage of medical resources in the future. Conclusion: The risk of imported COVID-19 to China from the 14 bordering countries is considered to be high. Therefore, continuous attention is needed for all the land port cities. It is suggested that the capacities of port



cities to deal with the imported COVID-19 cases should be evaluated in time, and the preparedness plan for the port city response to imported COVID-19 cases should be formulated as soon as possible. Meanwhile, the mechanism of entry health screening and patient transferring should be established and strengthened.

Publication Type

Journal article.

<252>

Accession Number

20203248519

Author

Praveen Kulkarni; Sudhir Prabhu; Sunil Kumar; Balaji Ramraj

Title

COVID -19- Infodemic overtaking pandemic? Time to disseminate facts over fear. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):264-268. 14 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

Coronavirus (COVID-19) is a humanitarian emergency. World Health Organization (WHO) and National Governments are making their best efforts to prevent the spread of disease. But a global epidemic of misinformation which is rapidly spreading through social media platforms and other outlets is posing serious problem to the public health interventions. This rapid spread of all sorts of information

pertaining to the epidemic which makes its solution difficult is termed as infodemic. Infodemic creates fear, confusion and stigmatization among people and makes them more vulnerable to practice the measures which are not evidence based and scientifically sound. Hence there is an urgent need to identify the source of misinformation and prevent them from further spreading. WHO and the government of India have taken several steps in controlling this problem but there is a need for active involvement of social media companies, professional bodies, health care providers and general public in identification of misinformation and combating its spread.

#### Publication Type

Journal article.

<253>

#### Accession Number

20203257211

#### Author

Prasad Sarkale; Savita Patil; Yadav, P. D.; Nyayanit, D. A.; Gajanan Sapkal; Shrikant Baradkar; Rajen Lakra; Anita Shete-aich; Sharda Prasad; Atanu Basu; Lalit Dar; Veena Vipat; Sidhartha Giri; Varsha Potdar; Choudhary, M. L.; Ira Praharaj; Amita Jain; Bharati Malhotra; Pranita Gawande; Kaumudi Kalele; Nivedita Gupta; Cherian, S. S.; Priya Abraham

#### Title

First isolation of SARS-CoV-2 from clinical samples in India.

#### Source

Indian Journal of Medical Research; 2020. 151(2/3):244-250. 21 ref.

#### Publisher

Indian Council of Medical Research

#### Location of Publisher

New Delhi

#### Country of Publication

India

#### Abstract

The objective of the article was to report the first isolation of the prevalence and epidemiology of COVID-19 in India. In India, initial attempts to isolate the virus from the first three cases did not succeed due to low titres in the clinical specimens. This is the first successful virus isolation of SARS-CoV-2 in the Vero CCL-81 cells in India from nasal and throat swabs of persons with a travel history from Italy and their contacts. Isolation of SARS-CoV-2 from clinical samples will be helpful to address key questions of correlating the differential cell line susceptibility and viral replication efficiency, especially important for clinical samples with low viral titres. Isolation of the virus in such a pandemic situation would help to develop indigenously designed reagents such as positive controls, virus antigen and antibodies, which could lead to the indigenous development of sero-diagnostic assays. These assays would be critical for conducting population-based serosurveys. Propagation in culture will also facilitate antiviral susceptibility studies and vaccine efforts in India.

#### Publication Type

Correspondence.

<254>

#### Accession Number

20203257208

#### Author

Yadav, P. D.; Anita Shete-aich; Nyayanit, D. A.; Prachi Pardeshi; Triparna Majumdar; Balasubramanian, R.; Ullas, P. T.; Sreelekshmy Mohandas; Hitesh Dighe; Pradeep Sawant; Savita Patil; Dilip Patil; Gokhale, M. D.; Basavaraj Mathapati; Sudeep, A. B.; Sreekant Baradkar; Abhimanyu Kumar; Rutuja Kharde; Malvika Salve; Yash Joshi; Nivedita Gupta; Mourya, D. T.

#### Title

Detection of coronaviruses in Pteropus & Rousettus species of bats from different States of India.

#### Source

Indian Journal of Medical Research; 2020. 151(2/3):226-235. 29 ref.

#### Publisher

Indian Council of Medical Research

#### Location of Publisher

New Delhi

## Country of Publication

India

## Abstract

**Background & objectives:** Bats are considered to be the natural reservoir for many viruses, of which some are potential human pathogens. In India, an association of *Pteropus medius* bats with the Nipah virus was reported in the past. It is suspected that the recently emerged severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) also has its association with bats. To assess the presence of CoVs in bats, we performed identification and characterization of bat CoV (BtCoV) in *P. medius* and *Rousettus* species from representative States in India, collected during 2018 and 2019. **Methods:** Representative rectal swab (RS) and throat swab specimens of *Pteropus* and *Rousettus* spp. bats were screened for CoVs using a pan-CoV reverse transcription-polymerase chain reaction (RT-PCR) targeting the RNA-dependent RNA polymerase (RdRp) gene. A single-step RT-PCR was performed on the RNA extracted from the bat specimens. Next-generation sequencing (NGS) was performed on a few representative bat specimens that were tested positive. Phylogenetic analysis was carried out on the partial sequences of RdRp gene sequences retrieved from both the bat species and complete viral genomes recovered from *Rousettus* spp. **Results:** Bat samples from the seven States were screened, and the RS specimens of eight *Rousettus* spp. and 21 *Pteropus* spp. were found positive for CoV RdRp gene. Among these, by Sanger sequencing, partial RdRp sequences could be retrieved from three *Rousettus* and eight *Pteropus* bat specimens. Phylogenetic analysis of the partial RdRp region demonstrated distinct subclustering of the BtCoV sequences retrieved from these *Rousettus* and *Pteropus* spp. bats. NGS led to the recovery of four sequences covering approximately 94.3 per cent of the whole genome of the BtCoVs from *Rousettus* bats. Three BtCoV sequences had 93.69 per cent identity to CoV BtRt-BetaCoV/GX2018. The fourth BtCoV sequence was 96.8 per cent identical to BtCoV HKU9-1. **Interpretation & conclusions:** This study was a step towards understanding the CoV circulation in Indian bats. Detection of potentially pathogenic CoVs in Indian bats stresses the need for enhanced screening for novel viruses in them. One Health approach with collaborative activities by the animal health and human health sectors in these surveillance activities shall be of use to public health. This would help in the development of diagnostic assays for novel viruses with outbreak potential and be useful in disease interventions. Proactive surveillance remains crucial for identifying the emerging novel viruses with epidemic potential and measures for risk mitigation.

## Publication Type

Journal article.

<255>

## Accession Number

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20203255314

Author

Salam, S.; Aftab Rabbani; M. Hassam Rehm; Ussama Ashfaq; Bushra Hussain

Title

Study of the neurological complications of COVID-19, a cohort study.

Source

Annals of International Medical and Dental Research; 2019. 5(5)15 ref.

Publisher

Society for Health Care & Research Development

Location of Publisher

Moradabad

Country of Publication

India

Abstract

Background: Middle East Respiratory Syndrome MERS has high pandemic potential and mortality. However, since its appearance in 2012, MERS neurological symptoms have rarely been reported. So, we aimed this study to determine the neurological complications among patients of Corona virus. Place and Duration: In the Department of Pulmonology, Neurology, ICU and Emergency department of Mayo Hospital Lahore for three months duration from March 2020 to May 2020. Methods: We assessed eight laboratory-approved MERS coronavirus infection CoV patients who exhibited neurological complications during treatment of MERS. These 8 patients belonged to a group of 35 patients managed in a given hospital during the 2019 epidemic in Pakistan. Clinical presentations, laboratory results and forecasts were defined.. Results: Eight out of 35 patients using MERS stated neurological manifestation after or during treatment of MERS-CoV. Possible diagnosis in these eight cases was encephalitis overlapping Guillain-Barre Bickerstaff syndrome, weakness attained in the ICU, or other infectious or toxic neuropathies. Neurological complications did not occur simultaneously with respiratory signs, but was appeared late after two to three weeks. Conclusion: During MERS treatment; neuromuscular complications are not uncommon and may have been formerly underdiagnosed. It is important to understand the neurological symptoms in an infectious disease like MERS because these signs are hardly assessed during management and may restrict the prognosis or need modifications in treatment.

Publication Type

Journal article.

<256>

Accession Number

20203258945

Author

Petryk, V. L.

Title

An analysis of the global civil aviation market and a forecast of its development in the face of unstable demand for air transportation. [Ukrainian]

Source

Business Inform; 2020. (3):112-119. 20 ref.

Publisher

Inzhek Publishing House

Location of Publisher

Kharkiv

Country of Publication

Ukraine

Abstract

The publication is aimed at researching the current status of the global civil aviation market and forecasting its development in the face of unstable demand for air transportation caused by the pandemic of coronavirus infection COVID-19. It is specified that civil aviation is one of the most important components of the global transport system, which provides jobs and influences development of the economy of any country in the world. The status of the global civil aviation market, the dynamics and structure of air transportation by regions of the world are analyzed; role of air transportations in the development of world trade and tourism is defined; the main trends in the global civil aviation market for the next decade are presented. To plan the activities of airlines, airports, aeronautical systems, etc. forecasts of passenger and freight transportations, the aircrafts' traffic together with the related parameters are required. Both global and regional forecasts of the global civil aviation market for 2020 before and after the unstable demand for air transportation caused by the coronavirus pandemic are analyzed, economic consequences are provided. In 2020, it was planned to increase revenue from air transportation by 4%, up to 872 billion U.S. dollars, but due to the spread of COVID-19, carriers around the world could lose between 63 billion and 113 billion U.S. dollars. However, it is not yet possible to provide a definitive assessment of the impact of the current situation in the global civil aviation market.

Publication Type

<257>

Accession Number

20203264032

Author

Kong Qi; Wu Yue; Gu Yu; Lv Qi; Qi FeiFei; Gong ShuRan; Chen XiuPing

Title

Analysis of the molecular mechanism of Pudilan (PDL) treatment for COVID-19 by network pharmacology tools.

Source

Biomedicine & Pharmacotherapy; 2020. 12831 ref.

Publisher

Elsevier Masson SAS

Location of Publisher

Issy-les-Moulineaux

Country of Publication

France

Abstract

Background: Pudilan (PDL), a four-herb prescription with the traditional function of heat-clearing and detoxifying, has been clinically used as an anti-SARS-CoV-2 infectory agent in China. PDL might also have therapeutic potentials for COVID-19 while the underlying mechanisms remain to be clarified. Methods: We used network pharmacology analysis and selected 68 co-targeted genes/proteins as targets of both PDL and COVID-19. These co-targeted genes/proteins were predicted by SwissDock Server for their high-precision docking simulation, and analyzed by STRING for proteins to protein interaction (PPI), pathway and GO (gene ontology) enrichment. The therapeutic effect for PDL treatment on COVID-19 was validated by the TCMATCOV (TCM Anti COVID-19) platform. Results: PDL might prevent the entrance of SARS-CoV-2 entry into cells by blocking the angiotensin-converting enzyme 2 (ACE2). It might inhibit the cytokine storm by affecting C-reactive protein (CRP), interferon-gamma (IFN-gamma), interleukin-6 (IL-6), interleukin-10 (IL-10), tumor necrosis factor (TNF),

epidermal growth factor receptor (EGFR), C-C motif chemokine ligand 5 (CCL5), transforming growth factor-beta1 (TGFbeta1), and other proteins. PDL might moderate the immune system to shorten the course of the disease, delay disease progression, and reduce the mortality rate. Conclusion: PDL might have a therapeutic effect on COVID-19 through three aspects, including the moderate immune system, anti-inflammation, and anti-virus entry into cells.

Publication Type

Journal article.

<258>

Accession Number

20203267107

Author

Kaba&ccedil;am, G.; Dayanga&ccedil;, M.; &Uuml;&ccedil;bilek, E.; Er&ccedil;in, C. N.; G&uuml;nsar, F.; Aky&inodot;ld&inodot;z, M.; Akarsu, M.; Demir, M.; Kaymako&gbreve;lu, S.; Karasu, Z.; Idilman, R.

Title

The COVID-19 pandemic: clinical practice advice for gastroenterologists, hepatologists, and liver transplant specialists.

Source

Turkish Journal of Gastroenterology; 2020. 31(5):348-355. 28 ref.

Publisher

AVES Publishing

Location of Publisher

Istanbul

Country of Publication

Turkey

Abstract

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is a novel acute infectious disease that has rapidly reached staggering pandemic proportions. This review addresses gastroenterologists, hepatologists, liver transplant (LT) specialists,



and health-care professionals working in the field of liver diseases and liver transplantation. It has been written based on a limited number of publications, recommendations of national and international liver and organ transplantation societies, and experiences of patients with COVID-19 around the world. The purpose of this review is to provide information addressing questions and concerns about COVID-19, to reveal the effects of the novel disease on patients with chronic liver disease and LT recipients, and to share information about ways in which this pandemic will affect clinical practices. We, the Turkish Association for the Study of the Liver (TASL), would like to remind you that this text is actually not a practical guide. It is imperative to act according to the standards set by health-care institutions and the Ministry of Health, Republic of Turkey.

Publication Type

Journal article.

<259>

Accession Number

20203247609

Title

Pregnancy and young child feeding in South Sudan during the COVID-19 pandemic. (Special Issue: Coronavirus pandemic.)

Source

South Sudan Medical Journal; 2020. 13(2):64-66. 7 ref.

Publisher

South Sudan Doctors' Association

Location of Publisher

Juba

Country of Publication

South Sudan

Abstract

This report serves as guidelines for pregnant women and young child feeding in South Sudan amidst the COVID-19 pandemic.

Publication Type

Journal article.

<260>

Accession Number

20203257098

Author

Bali, S.; Dhatt, R.; Lal, A.; Jama, A.; Daalen, K. van; Sridhar, D.

Title

Off the back burner: diverse and gender-inclusive decision-making for COVID-19 response and recovery.

Source

BMJ Global Health; 2020. 5(5)18 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Epidemics are a gendered vulnerability, with their socioeconomic impact disproportionately high among women, even when, as it seems the case with COVID-19, mortality is higher among men. However, women are not only a vulnerable population, they can serve as agents of change whose contributions can improve epidemic response and recovery. In COVID-19 response and recovery, existing lack of diversity and gender representation in decision-making means perspectives of some of the most vulnerable communities are left out. In addition to being ethical, diverse and gender inclusive decision-making will yield innovation and knowledge dividends, limit group-think and promote greater accountability for an adaptive response and resilient recovery to COVID-19. For epidemic response to be effective and adaptive, perspectives of women, and LMICs and vulnerable communities are critical.

Interventions that work in high-income countries may not work elsewhere. For example, border closures will have limited applicability in countries with porous borders, and top-down interventions may be less effective in countries where the community trust in governments is lower, particularly in areas where women have been mistreated by police and armed forces.

#### Publication Type

Journal article.

<261>

#### Accession Number

20203257097

#### Author

Kim HaNi

#### Title

The sociopolitical context of the COVID-19 response in South Korea.

#### Source

BMJ Global Health; 2020. 5(5)15 ref.

#### Publisher

BMJ Publishing Group

#### Location of Publisher

London

#### Country of Publication

UK

#### Abstract

The existing reports tend to portray the effective interventions and policies as if they operate independently of the surrounding political and social processes. As a result, these reports have limited insights and public health value for diverse health system contexts, especially more resource-constrained settings. Therefore, this article situates the lessons from COVID-19 control efforts within a specific sociopolitical context is necessary to maximize insights on how specific public health programmes and policies may work in specific contexts by highlighting the key systems-level features

underlying South Korea's response to COVID-19, including the role of public investment and trust, and of democracy, equity and solidarity, in response to disease outbreaks and the overall resilience of the health system.

Publication Type

Journal article.

<262>

Accession Number

20203257093

Author

Lee TsungLing

Title

Legal preparedness as part of COVID-19 response: the first 100 days in Taiwan.

Source

BMJ Global Health; 2020. 5(5)15 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Public health legal preparedness is essential for a coordinated whole-of-government response during an infectious disease outbreak. Recognition of vulnerable individuals affected by the outbreak is crucial to mitigate the disproportionate burdens placed on them. Open communication about challenges faced by the government can encourage civic contribution to solutions; where bottom-up community-led initiatives can complement the work of government, as well as religious leaders and faith-based organisations play a crucial role in COVID-19 response; sharing evidence-based information and recognising that the disruptive impacts of the pandemic on religious practices can facilitate health

cooperation. During a health crisis, accurate science communication is vital; health policies based on scientific-based evidence add credibility to public health authorities.

Publication Type

Journal article.

<263>

Accession Number

20203257092

Author

Oladele, T. T.; Olakunde, B. O.; Oladele, E. A.; Ogbuoji, O.; Yamey, G.

Title

The impact of COVID-19 on HIV financing in Nigeria: a call for proactive measures.

Source

BMJ Global Health; 2020. 5(5)21 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

COVID-19, the most devastating pandemic since the 1918 influenza pandemic, has had severe health and economic impacts, including in Nigeria. Despite the onset of COVID-19, efforts to control HIV cannot be abandoned. HIV funding must be protected from the ongoing shocks to the Nigerian economy, so that Nigeria does not lose the health gains achieved over the past decades and bold proactive steps are needed, such as integrating HIV into the National Health Insurance Scheme, locking in donor commitments to HIV and building a robust health system.

Publication Type

<264>

Accession Number

20203257091

Author

Viens, A. M.; Eyawo, O.

Title

COVID-19: the rude awakening for the political elite in low- and middle-income countries.

Source

BMJ Global Health; 2020. 5(5)14 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Decades of bad political choices by the elite class has resulted in weakened health systems in many low- and middle-income countries. The resulting lack of high-quality care and poor health outcomes are typically only borne by those of lower socioeconomic standing - with the elites and their families being able to seek care in high-income countries. COVID-19 may change all that - a highly transmissible virus and restrictive measures that prevent elites from flying abroad has forced them to depend on an ill-equipped health system at home and it presents a stark illustration that we are all interconnected; social class, personal status or borders do not help to evade health vulnerability. The current circumstances may reveal enlightened self-interest as the only motivational consideration strong enough to awaken political elites from their corrupt or ideological slumber. Perhaps they will now feel compelled to adequately invest in an effective and integrated health system. It remains to be seen though, whether the tendency of political elites to have short memories will, a few years after the

pandemic has waned, find them reverting to familiar calls for deep austerity and individual responsibility for health.

Publication Type

Journal article.

<265>

Accession Number

20203257062

Author

Yaya, S.; Yeboah, H.; Charles, C. H.; Otu, A.; Labonte, R.

Title

Ethnic and racial disparities in COVID-19-related deaths: counting the trees, hiding the forest.

Source

BMJ Global Health; 2020. 5(6)38 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

COVID-19 has further exposed the strong association between race, ethnicity, culture, socioeconomic status and health outcomes and illuminated monumental ethnoracialized differences reflecting the "colour of disease". Racism, segregation and inequality have been invisibly and pervasively embedded in dominant cultures and social institutions for decades and these socioeconomic factors that negatively influence health outcomes within the underserved minority communities must be identified and contextualized within historical, political, social and economic remits. Acquisition of disaggregated data will be vital in identifying gaps in the social determinants of these health disparities and tailoring global policy responses. Ethnic and racial health disparities continue to plague minority population across

several countries resulting in worse health outcomes as reflected in the current COVID-19 crisis. Many ethnic minorities experience low socioeconomic deprivation, poorer healthcare experiences and low health insurance coverage which contribute to inadequate healthcare utilization and therefore increase in long-term illnesses. These persistent ethnic health disparities have been well known for many decades, but often systematically ignored. The onset of COVID-19 exposes, once more, the racial fault lines that have been the norm in many countries' health systems, and social and economic policies. It is poignant that wealthy countries with technologically advanced health systems still record poor and inequitable health outcomes for their minority populations.

Publication Type

Journal article.

<266>

Accession Number

20203257059

Author

Cegolon, L.; Pichierri, J.; Mastrangelo, G.; Cinquetti, S.; Sotgiu, G.; Bellizzi, S.; Pichierri, G.

Title

Hypothesis to explain the severe form of COVID-19 in Northern Italy.

Source

BMJ Global Health; 2020. 5(6)52 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

This report claims that there is evidence suggesting that severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2) had been circulating in Italy before the first COVID-19 case was



detected in the country. Prior infections with SARS-CoV-2 (or other viruses/coronaviruses) may arguably predispose to more severe forms of the disease following re-infection with SARS-CoV-2, with an immunological mechanism known as Antibody-Dependent-Enhancement, already observed with infections sustained by other coronaviruses (MERS-CoV and SARS-CoV) or other viruses such as the West Nile virus and dengue. If confirmed by in vivo studies, this hypothesis may have relevant implications for the treatment of severe forms of COVID-19, yet the possibility to produce an effective vaccine against SARS-CoV-2 might be hampered.

Publication Type

Journal article.

<267>

Accession Number

20203257056

Author

Puong Bich Tran; Hensing, G.; Wingfield, T.; Atkins, S.; Annerstedt, K. S.; Kazibwe, J.; Tomeny, E.; Biermann, O.; Thorpe, J.; Rachel, F.; Linnroth, K.

Title

Income security during public health emergencies: the COVID-19 poverty trap in Vietnam.

Source

BMJ Global Health; 2020. 5(6)24 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

The COVID-19 poverty trap is shaped by barriers to accessing prevention, vulnerability to economic disruption and financial uncertainties, and incurrence of catastrophic costs as people try to cope with

the outbreak, and to ensure socioeconomic stability and confidence during public health crises and in the long run, social protection schemes (e.g. social insurance, microfinancing) must be in place to help people cope with the loss of income security and reduced confidence in society. However, in the case of COVID-19, the direct and indirect costs for individuals are likely to be staggering and temporary relief measures may help to some extent but are unlikely to be either socially inclusive or alleviate poverty long term. Further quantification of the true extent of these costs may spark greater attention toward more sustainable and scalable social protection policies both within and outwith periods of public health crisis. The links between social protection and health systems also need to be strengthened to maximise health and economic prospects for all.

Publication Type

Journal article.

<268>

Accession Number

20203257536

Author

Zhang RuiXiong; Zhang YuZhong; Lin HaiPeng; Feng Xu; Fu TzungMay; Wang YuHang

Title

NOx emission reduction and recovery during COVID-19 in East China.

Source

Atmosphere; 2020. 11(4)43 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Since its first confirmed case at the end of 2019, COVID-19 has become a global pandemic in three months with more than 1.4 million confirmed cases worldwide, as of early April 2020. Quantifying the changes of pollutant emissions due to COVID-19 and associated governmental control measures is crucial to understand its impacts on economy, air pollution, and society. We used the WRF-GC model and the tropospheric NO<sub>2</sub> column observations retrieved by the TROPOMI instrument to derive the top-down NO<sub>x</sub> emission change estimation between the three periods: P1 (January 1st to January 22nd, 2020), P2 (January 23rd, Wuhan lockdown, to February 9th, 2020), and P3 (February 10th, back-to-work day, to March 12th, 2020). We found that NO<sub>x</sub> emissions in East China averaged during P2 decreased by 50% compared to those averaged during P1. The NO<sub>x</sub> emissions averaged during P3 increased by 26% compared to those during P2. Most provinces in East China gradually regained some of their NO<sub>x</sub> emissions after February 10, the official back-to-work day, but NO<sub>x</sub> emissions in most provinces have not yet to return to their previous levels in early January. NO<sub>x</sub> emissions in Wuhan, the first epicenter of COVID-19, had no sign of emission recovering by March 12. A few provinces, such as Zhejiang and Shanxi, have recovered fast, with their averaged NO<sub>x</sub> emissions during P3 almost back to pre-lockdown levels.

Publication Type

Journal article.

<269>

Accession Number

20203268649

Author

Duan TaiXiang; Jiang HeChao; Deng XiangShu; Zhang QiongWen; Wang Fang

Title

Government intervention, risk perception, and the adoption of protective action recommendations: evidence from the COVID-19 prevention and control experience of China.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)38 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

This study examines the relationships between government interventions, risk perception, and the public's adoption of protective action recommendations (PARs) during the COVID-19 coronavirus disease emergency in mainland China. We conducted quota sampling based on the proportion of the population in each province and gender ratios in the Sixth Census and obtained a sample size of 3837. Government intervention was divided into government communication, government prevention and control, and government rescue. We used multiple regression and a bootstrap mediation effect test to study the mechanism of these three forms of government intervention on the public's adoption of PARs. The results show that government prevention and control and government rescue significantly increased the likelihood of the public adopting PARs. Risk perception was significantly associated with the public's adoption of PARs. The effects of government interventions and risk perception on the public's adoption of PARs was not found to vary by region. Risk perception is identified as an important mediating factor between government intervention and the public's adoption of PARs. These results indicate that increasing the public's risk perception is an effective strategy for governments seeking to encourage the public to adopt PARs during the COVID-19 pandemic.

Publication Type

Journal article.

<270>

Accession Number

20203268637

Author

Renzaho, A. M. N.

Title

The need for the right socio-economic and cultural fit in the COVID-19 response in sub-Saharan Africa: examining demographic, economic political, health, and socio-cultural differentials in COVID-19 morbidity and mortality.

Source

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The coronavirus disease (COVID-19) has spread quickly across the globe with devastating effects on the global economy as well as the regional and societies' socio-economic fabrics and the way of life for vast populations. The nonhomogeneous continent faces local contextual complexities that require locally relevant and culturally appropriate COVID-19 interventions. This paper examines demographic, economic, political, health, and socio-cultural differentials in COVID-19 morbidity and mortality. The health systems need to be strengthened through extending the health workforce by mobilizing and engaging the diaspora, and implementing the International Health Regulations (2005) core capacities. In the absence of adequate social protection and welfare programs targeting the poor during the pandemic, sub-Saharan African countries need to put in place flexible but effective policies and legislation approaches that harness and formalise the informal trade and remove supply chain barriers. This could include strengthening cross-border trade facilities such as adequate pro-poor, gender-sensitive, and streamlined cross-border customs, tax regimes, and information flow. The emphasis should be on cross-border infrastructure that not only facilitates trade through efficient border administration but can also effectively manage cross-border health threats. There is an urgent need to strengthen social protection systems to make them responsive to crises, and embed them within human rights-based approaches to better support vulnerable populations and enact health and social security benefits. The COVID-19 response needs to adhere to the well-established 'do no harm' principle to prevent further damage or suffering as a result of the pandemic and examined through local lenses to inform peace-building initiatives that may yield long-term gains in the post-COVID-19 recovery efforts.

Publication Type

Journal article.

<271>

Accession Number

20203262482

Author

Leung Char

Title

The difference in the incubation period of 2019 novel coronavirus (SARS-CoV-2) infection between travelers to Hubei and nontravelers: the need for a longer quarantine period.

Source

Infection Control and Hospital Epidemiology; 2020. 41(5):594-596. 8 ref.

Publisher

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

Data collected from the individual cases reported by the media were used to estimate the distribution of the incubation period of travelers to Hubei versus that of nontravelers. Because a longer and more volatile incubation period has been observed in travelers, the duration of quarantine should be extended to 3 weeks.

Publication Type

Journal article.

<272>

Accession Number

20203265550

Author

Malik, K. T.

Title

COVID-19: bat-borne viral outbreaks and its prevention through ecological intervention with reference to India.

Source

Environment Conservation Journal; 2020. 21(1/2):131-136. 19 ref.

Publisher

Action for Sustainable, Efficacious Development and Awareness (ASEA)

Location of Publisher

Haridwar

Country of Publication

India

Abstract

The present paper discusses different methods to stop COVID-19 pandemic which bring the whole of world to a stand-still. The (COVID-19) Coronavirus Disease- 19 caused by (SARS-CoV-2) Severe Acute Respiratory Syndrome Coronavirus 2 is highly transmittable and pathogenic viral infection which recently emerged in Wuhan province of China and has rapidly spread throughout the World. The information regarding its intermediate source of origin and transfer to humans is still unknown or very less known, but its fast transmission from human to human has been confirmed widely. Till date no clinically approved antiviral drug or vaccine has been developed against COVID-19. In the present paper, authors tries to summarize and comparatively analyse the deadly virus author also discuss that how this virus poses a constant threat to sub continental nations especially India. The present paper also suggests number of ecological interventions to protect humans.

Publication Type

Journal article.

<273>

Accession Number

20203268613

Author

Godio, A.; Pace, F.; Vergnano, A.

Title

SEIR modeling of the Italian epidemic of SARS-CoV-2 using computational swarm intelligence.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)19 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

We applied a generalized SEIR epidemiological model to the recent SARS-CoV-2 outbreak in the world, with a focus on Italy and its Lombardy, Piedmont, and Veneto regions. We focused on the application of a stochastic approach in fitting the model parameters using a Particle Swarm Optimization (PSO) solver, to improve the reliability of predictions in the medium term (30 days). We analyzed the official data and the predicted evolution of the epidemic in the Italian regions, and we compared the results with the data and predictions of Spain and South Korea. We linked the model equations to the changes in people's mobility, with reference to Google's COVID-19 Community Mobility Reports. We discussed the effectiveness of policies taken by different regions and countries and how they have an impact on past and future infection scenarios.

Publication Type

Journal article.

<274>

Accession Number

20203262467

Author



Cheng, V. C. C.; Wong ShukChing; Chen, J. H. K.; Yip, C. C. Y.; Chuang, V. W. M.; Tsang, O. T. Y.; Sridhar, S.; Chan, J. F. W.; Ho PakLeung; Yuen KwokYung

Title

Escalating infection control response to the rapidly evolving epidemiology of the coronavirus disease 2019 (COVID-19) due to SARS-CoV-2 in Hong Kong.

Source

Infection Control and Hospital Epidemiology; 2020. 41(5):493-498. 30 ref.

Publisher

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

Objective: To describe the infection control preparedness measures undertaken for coronavirus disease (COVID-19) due to SARS-CoV-2 (previously known as 2019 novel coronavirus) in the first 42 days after announcement of a cluster of pneumonia in China, on December 31, 2019 (day 1) in Hong Kong. Methods: A bundled approach of active and enhanced laboratory surveillance, early airborne infection isolation, rapid molecular diagnostic testing, and contact tracing for healthcare workers (HCWs) with unprotected exposure in the hospitals was implemented. Epidemiological characteristics of confirmed cases, environmental samples, and air samples were collected and analyzed. Results: From day 1 to day 42, 42 of 1,275 patients (3.3%) fulfilling active ( $n = 29$ ) and enhanced laboratory surveillance ( $n = 13$ ) were confirmed to have the SARS-CoV-2 infection. The number of locally acquired case significantly increased from 1 of 13 confirmed cases (7.7%, day 22 to day 32) to 27 of 29 confirmed cases (93.1%, day 33 to day 42;  $P < .001$ ). Among them, 28 patients (66.6%) came from 8 family clusters. Of 413 HCWs caring for these confirmed cases, 11 (2.7%) had unprotected exposure requiring quarantine for 14 days. None of these was infected, and nosocomial transmission of SARS-CoV-2 was not observed. Environmental surveillance was performed in the room of a patient with viral load of  $3.3 \times 10^6$  copies/mL (pooled nasopharyngeal and throat swabs) and  $5.9 \times 10^6$  copies/mL (saliva), respectively. SARS-CoV-2 was identified in 1 of 13 environmental samples (7.7%) but not in 8 air samples collected at a distance of 10 cm from the patient's chin with or without wearing a surgical mask. Conclusion: Appropriate hospital infection control measures was able to prevent nosocomial transmission of SARS-CoV-2.

Publication Type

Journal article.

<275>

Accession Number

20203265537

Author

Chaudhary Priya; Janmeda Pracheta

Title

Spreadable virus of the 21st century: COVID-19.

Source

Environment Conservation Journal; 2020. 21(1/2):13-18. 21 ref.

Publisher

Action for Sustainable, Efficacious Development and Awareness (ASEA)

Location of Publisher

Haridwar

Country of Publication

India

Abstract

The latest outbreak of a respiratory disease, known as coronavirus disease 19 (COVID-19), is the third virus spillover from animals to humans in the last two decades. The disease is caused by coronavirus and has converted into an epidemic in recent days. It spread via direct contact or droplets of nasal-discharge from one human-to-another within the mean-incubation period of 6.5 days. Dyspnea, cough and fever are the most common symptoms in the patients of COVID-19, though along with diarrhea in 3% cases. Bilateral pulmonary with ground-glass opacity and consolidation has been observed in 98% cases of the disease by the help of computed tomography. The treatment process of COVID-19 with chloroquine and remdesivir drug is under the clinical trial worldwide and responding well to cure the disease. Under the prevalent circumstances, the main goal is to control the widespread infection of SARS-CoV-2 across the world and to aware the public regarding the possible preventive measures and treatments. However, the public health authorities should keep a close eye on the circumstances strictly, as the more we know about this novel coronavirus and its outbreak, the better we can respond or control the conditions worldwide.

Publication Type

Journal article.

<276>

Accession Number

20203268600

Author

Hayat Khezari; Rosenthal, M.; Xu Sen; Arshed, M.; Li PengChao; Zhai PanPan; Desalegn GebrehaweriaKassa; Fang Yu

Title

View of Pakistani residents toward coronavirus disease (COVID-19) during a rapid outbreak: a rapid online survey.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)31 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Background: Coronavirus disease (COVID-19) is a deadly disease that is affecting most of the countries worldwide. Public understanding, including knowledge about signs and symptoms, mode of transmission, and hygiene of COVID-19, is vital for designing effective control strategies during a public health crisis. The current study is aimed at investigating the public's perspective about COVID-19, including their knowledge, attitude, and practices. Methods: A rapid online survey comprising 22 items was administered during the rapid outbreak of COVID-19 in Pakistan. Questions were focused on the prevention, transmission, clinical features, and control of COVID-19. In addition, the attitudes and practices of the participants were explored. Descriptive statistics, Mann-Whitney tests, Kruskal-Wallis tests, and regression analysis were carried out during data analysis. Results: A total of 1257 respondents participated in this study. Most of the respondents had good knowledge (good = 64.8%, average = 30.5%, poor = 4.7%) of COVID-19. Gender, marital status, education, and residence were

observed to have a significant association with the knowledge score. A vast majority of the survey respondents (77.0%) believed that COVID-19 would be controlled successfully in Pakistan. The practices of wearing a mask (85.8%) and handwashing (88.1%) were common among the participants. Conclusion: The participants demonstrated good knowledge and reasonable attitudes and practices toward most aspects of the COVID-19 outbreak. Improvements in certain areas could be made by mass-level education.

Publication Type

Journal article.

<277>

Accession Number

20203272340

Author

Omar, A. R. C.; Ishak, S.; Jusoh, M. A.

Title

The impact of Covid-19 movement control order on SMEs' businesses and survival strategies. (Special Section.)

Source

Geografia. Malaysian Journal of Society and Space; 2020. 16(2):139-150. 30 ref.

Publisher

Universiti Kebangsaan

Location of Publisher

Bangi

Country of Publication

Malaysia

Abstract

Coronavirus outbreak is the latest world tragedy that have affected all sectors in economy. The lockdown, confinement, limited movement order and social distancing are amongst the preemptive governments' effort to safeguard the public health. While recognizing the importance of the national

order in preventing the immense spread of the virus, the authors contend that there are certain undiscovered impacts of the control order policy on SMEs in Malaysia. The objectives of this article are to scrutinize the implications of the Covid-19 Movement Control Order (MCO) on SMEs businesses and to identify survival strategies based on the owners' perspectives. The study applies qualitative approach conducted through phone-based interviews with six selected SMEs' owners during the first phase of control order from March 18, 2020 to March 31, 2020. In summary, the impacts of MCO on SMEs are classified into the operational problems (i.e. operation disruption; supply chain disruption; foresighting the future business direction) and the financial problems (i.e. cash flow imbalance; access to stimulus packages; risk of bankruptcy). Meanwhile, the major themes of current survival strategies fall under the financial and marketing strategies. The paper recommends few suggestions for future research work, business development agencies and entrepreneurs.

#### Publication Type

Journal article.

<278>

#### Accession Number

20203259273

#### Author

Paumgarten, F. J. R.; Delgado, I. F.; Pitta, L. da R.; Oliveira, A. C. A. X. de

#### Title

Chloroquine and hydroxychloroquine repositioning in times of COVID-19 pandemics, all that glitters is not gold. (Special Section: COVID-19 - public health contributions.)

#### Source

Cadernos de SaAde PAblica; 2020. 36(5)16 ref.

#### Publisher

Escola Nacional de Saude Publica

#### Location of Publisher

Rio de Janeiro

#### Country of Publication

Brazil

## Abstract

The objective of the article was to discuss the repurposing of chloroquine and hydroxychloroquine as an antiviral agent for COVID-19. Open label trials entail a high risk of bias and, under the current scenario of pandemics, many investigators may have expectations about the outcome. One is a single-arm study while another open-label trial was designed to evaluate whether HCQ plus azithromycin (a drug for bacterial infections) is superior to HCQ monotherapy. Suffering from important methodological limitations, the open-label trials will not be sufficient to clarify whether CQ and HCQ are in fact useful to treat COVID-19-ARDS.

## Publication Type

Journal article.

<279>

## Accession Number

20203259272

## Author

Sánchez, A.; Simas, L.; Diuana, V.; Larouze, B.

## Title

COVID-19 in prisons: an impossible challenge for public health? (Special Section: COVID-19 - public health contributions.)

## Source

Cadernos de SaAde PAblica; 2020. 36(5)15 ref.

## Publisher

Escola Nacional de Saude Publica

## Location of Publisher

Rio de Janeiro

## Country of Publication

Brazil

## Abstract

The objective of the article was to report the prevalence, epidemiology, and public health challenges of COVID-19 in prisons. In the context of overcrowded prisons, rigorous surveillance to promptly identify COVID-19's introduction in the prison units and rapid blockade of transmission are essential to avoid mass spread of the infection. Thus, the 14-day quarantine implemented in Rio de Janeiro for all new prisoners before being assigned to the various prison units is important for controlling transmission, so long as asymptomatic incoming prisoners are maintained separately from symptomatic ones. Since Brazil's prisons lack the infrastructure to allow isolation in individual cells, in order to isolate suspected cases in the prison population, cohort isolation is recommended. In case prisoners are not released, those belonging to the risk group should be assigned to an independent prison wing, with cells holding only a small number of inmates, reinforcing measures to prevent transmission and with regular medical care to reduce the likelihood of SARS-CoV-2 infection and to ensure treatment of the individual's underlying illness. This would guarantee adequate care, given the overload on the health system resulting from COVID-19 and the preventive work leave of healthcare staff included in this same risk group.

#### Publication Type

Journal article.

<280>

#### Accession Number

20203259271

#### Author

Nunes, J.

#### Title

The COVID-19 pandemic: securitization, neoliberal crisis, and global vulnerabilization. (Special Section: COVID-19 - public health contributions.)

#### Source

Cadernos de SaAde PAblica; 2020. 36(5)23 ref.

#### Publisher

Escola Nacional de Saude Publica

#### Location of Publisher

Rio de Janeiro

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## Country of Publication

Brazil

## Abstract

The objective of the article was to situate the new coronavirus disease (COVID-19) pandemic in a scenario of securitization of global health. COVID-19 confirms the dynamic of securitization of global health. The pandemic has been framed in the context of a threat to people's lives and to the regular functioning of societies. It was not just about the securitization of the disease, which for the majority of infected individuals is either asymptomatic or shows moderate symptoms. The COVID-19 pandemic carries enormous historical significance, by being situated at the confluence of two interconnected global dynamics: neoliberalism and the climate emergency - the destructive nature of which forces the world to rethink the organization of societies and our relationship with other human beings and the planet. The first lesson from COVID-19 is the need for a political reopening. Part of the force of neoliberalism stems from its facade of inevitability, since it draws on the idea that there is no alternative to the austerity that aims to deflate the State as a guarantor of the common good. The second lesson is the need for an awareness of limits and finitude. The trajectory of COVID-19 and its short- and long-term consequences hinge not only on an abstract neoliberalism, but on individual behaviors.

## Publication Type

Journal article.

<281>

## Accession Number

20203257367

## Author

Keshtkar-Jahromi, M.; Bavari, S.

## Title

A call for randomized controlled trials to test the efficacy of chloroquine and hydroxychloroquine as therapeutics against novel coronavirus disease (COVID-19).

## Source

American Journal of Tropical Medicine and Hygiene; 2020. 102(5):932-933. 23 ref.

## Publisher



American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

The objective of the article was to discuss the repurposing of chloroquine and hydroxychloroquine against COVID-19. The off-label use of CQ and HCQ to treat or prevent COVID-19 must be cautious, considering potential serious toxicities. Global multicenter randomized controlled trials testing safety and efficacy of CQ or HCQ seem to be the most reasonable plan to urgently gather data on the efficacy and safety of these medications in the treatment of COVID-19. Before the availability of robust data from RCTs, it is highly recommended that off-label use of medications to treat COVID-19, including CQ or HCQ, be accompanied by careful observation for potential toxicity.

Publication Type

Journal article.

<282>

Accession Number

20203264128

Author

Mizumoto, K.; Chowell, G.

Title

Estimating risk for death from coronavirus disease, China, January-February 2020.

Source

Emerging Infectious Diseases; 2020. 26(6):1251-1256. 29 ref.

Publisher

National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

Since December 2019, when the first case of coronavirus disease (COVID-19) was identified in the city of Wuhan in the Hubei Province of China, the epidemic has generated tens of thousands of cases throughout China. As of February 28, 2020, the cumulative number of reported deaths in China was 2,858. We estimated the time-delay adjusted risk for death from COVID-19 in Wuhan, as well as for China excluding Wuhan, to assess the severity of the epidemic in the country. Our estimates of the risk for death in Wuhan reached values as high as 12% in the epicenter of the epidemic and 1% in other, more mildly affected areas. The elevated death risk estimates are probably associated with a breakdown of the healthcare system, indicating that enhanced public health interventions, including social distancing and movement restrictions, should be implemented to bring the COVID-19 epidemic under control.

Publication Type

Journal article.

<283>

Accession Number

20203266584

Author

Giao Huynh; Thi Ngoc Han Nguyen; Van Khanh Tran; Kim Ngan Vo; Van Tam Vo; Le An Pham

Title

Knowledge and attitude toward COVID-19 among healthcare workers at District 2 Hospital, Ho Chi Minh City.

Source

Asian Pacific Journal of Tropical Medicine; 2020. 13(6):260-265. 17 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Objective: To assess the knowledge and attitude toward coronavirus disease-2019 (COVID-19) among healthcare workers at District 2 Hospital in Ho Chi Minh City (HCMC). Methods: A cross-sectional study was performed between January 2020 and February 2020 at District 2 Hospital. A systematic random sampling strategy was carried out and the data was collected through a self-administered questionnaire of the knowledge and attitude of healthcare workers regarding COVID-19. Descriptive analysis was reported to describe the demographic, mean knowledge and attitude score of healthcare workers. Inferential statistics including t-test, ANOVA and Spearman's correlation were used to evaluate the relationship between study variables. Results: A total of 327 eligible healthcare workers had a mean score of knowledge and attitude of 8.17+/-1.3 (range 4-10) and 1.86+/-0.43 (range 1-5), respectively. They showed good knowledge and a positive attitude. However, approximately two thirds of the participants knew the mode of transmission, the isolation period and treatment (67.0%, 65.8%, and 58.4%, respectively), and 82.3% and 79.8%, respectively, held positive attitude regarding the risk of personal and family members getting illness. There was a negative correlation between knowledge scores and attitude scores ( $r=-0.21$ ,  $P < 0.001$ ). Additionally, healthcare workers predominately used social media to inform themselves about COVID-19 (91.1%). Conclusions: The majority of healthcare workers had good knowledge and positive attitude toward COVID-19. However, the level of some knowledge and attitude lower than that expected for their position level towards the virus. Additional education interventions and campaigns are required for healthcare workers.

Publication Type

Journal article.

<284>

Accession Number

20203266583

Author

Jiang HongJuan; Nan Jiang; Lv ZhiYue; Yang [J.]

Title

Psychological impacts of the COVID-19 epidemic on Chinese people: exposure, post-traumatic stress symptom, and emotion regulation.

Source

Asian Pacific Journal of Tropical Medicine; 2020. 13(6):252-259. 29 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Objective: To examine the effects of coronavirus disease-2019 (COVID-19) exposure, expressive suppression/cognitive reappraisal, and demographic variables on post-traumatic stress symptoms (PTS) among Chinese. Methods: Participants were recruited by social media through WeChat and 6 049 Chinese (aged from 17 to 63 years; median=24) from 31 provinces were included in the study. PTS symptoms, expressive suppression, and cognitive reappraisal were assessed after the outbreak of COVID-19. A regression mixture analysis was conducted in Mplus 7. Results: A regression mixture model identified three latent classes that were primarily distinguished by differential effects of COVID-19 exposures on PTS symptoms: (1) Class 1 (mildly PTS symptoms, 80.9%), (2) Class 2 (moderate PTS symptoms, 13.0%), and (3) Class 3 (high PTS symptoms, 6.1%). The results demonstrated that the young, women and people with responsibilities and concerns for others were more vulnerable to PTS symptoms; and they had more expression inhibition and less cognitive reappraisal in three latent classes. Conclusions: The findings suggest that more attention needs to be paid to vulnerable groups such as the young, women and people with responsibilities and concerns for others. Therapies to encourage emotional expression and increase cognitive reappraisal may also be helpful for trauma survivors.

Publication Type

Journal article.

<285>

Accession Number

20203266580

Author

Hasson, S. S.; Al-Jabri, A. A.

Title

Immunized camels and COVID-19.

Source

Asian Pacific Journal of Tropical Medicine; 2020. 13(6):239-241. 10 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The objective of the article was to conduct an in vitro evaluation of the generated anti SARS-CoV-2 camel antibodies, using standard scientific methods, and in vivo clinical trials. The strategy involves the isolation and purification of the raised antisera against SARS-CoV-2 and the utilization of these unique neutralizing antibodies, after carefully disinfecting any residues of viruses and other microbes by standard sterilization methods. Once its efficacy and safety is confirmed, the purified antisera against SARS-CoV-2 can be transfused directly to the blood stream of the infected patient.

Publication Type

Journal article.

<286>

Accession Number

20203266522

Author

Zhou FengBo; Wang DaYan; Li JingXin; Wang Zhe; Li Yun; Tu WenXiao; Xiang NiJuan; Shi GuoQing

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## Title

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

## Source

Disease Surveillance; 2020. 35(1):6-9. 2 ref.

## Publisher

Editorial Board of Disease Surveillance

## Location of Publisher

Beijing

## Country of Publication

China

## Abstract

**Objective:** To assess the risks of public health emergencies, both the indigenous ones and the imported ones, which might occur in the mainland of China in January 2020. **Methods:** An internet based expert counsel was conducted to analyze the surveillance data of public health emergencies and priority communicable diseases in China reported through different channels, and the experts in all provincial centers for disease control and prevention attended this conference through video terminal. **Results:** Generally speaking, it is predicted that the incidence of public health emergencies reported in January 2020 would be lower than that in December 2019 and those during the same periods of previous three years, which might mainly be predominated by the epidemics of seasonal influenza, varicella, infectious diarrhea caused by norovirus and non-occupational carbon monoxide poisoning event. Dynamical risk assessment should be conducted according to the progress of investigations of etiology, clinical and epidemiological characteristics of the 2019 novel coronavirus infections occurred recently in Wuhan. The peak of seasonal influenza might occur at the end of January. The incidences of infectious diarrhea caused by norovirus and non-occupational carbon monoxide poisoning would still remain at high levels in January. In domestic vacation trips during the Spring Festival, travelers should pay attention to seasonal influenza, human infection with avian influenza virus, infectious diarrhea caused by norovirus, food poisoning and non-occupational carbon monoxide poisoning. While travelling abroad, Chinese travelers should pay attention to Ebola virus disease, cholera, dengue fever, yellow fever, Zika virus disease, Middle East respiratory syndrome, as well as food hygiene. **Conclusion:** Close attention should be paid to the 2019 novel coronavirus infections occurred in Wuhan and seasonal influenza, general attention should be paid to infectious diarrhea caused by norovirus, non-occupational carbon monoxide poisoning and the Spring Festival travelling related health problems.

## Publication Type

Journal article.

<287>

Accession Number

20203268960

Author

Chen ShaoMing; Jia PengBen; Qiu Li; Fenf FanLi; Pan TingTing; Huang YaJing; Chen JingJing; Cui Lei; Chen Yan; Sun ChuYang; Zeng XiaoMei; Jin Lei; Jin YuMing; He Bin

Title

Epidemiological characteristics of COVID-19 in Hainan Province, China. [Chinese]

Source

Chinese Journal of Zoonoses; 2020. 36(5):372-376. 11 ref.

Publisher

Chinese Journal of Zoonoses

Location of Publisher

Fuzhou

Country of Publication

China

Abstract

The epidemiology characteristics of 2019 novel coronavirus diseases (COVID-19) cases in Hainan were collected and analyzed for providing next stage control and prevention strategy in next stage. Spatial and temporal distribution, population characteristic, cluster, the interval between onset, visiting clinic, admitted were analyzed. Local cases and severe cases were also included in the analysis. Result showed that a total of 168 confirmed cases, including 36 severe cases and 5 fatal cases were reported. Cases were mainly distributed in Haikou, Sanya etc tourism cities and counties. The first case occurred in Jan 13th and the epidemic peak occurred in Jan 24th. Since Feb 6th, onset of illness has declined. The male-to-female ratio was 0.9:1. The median age was 51 years. Cases older than 50 years accounted for 54.8%. Retirees accounted for 36.9%, which was highest in all cases. Since Feb, the proportion of local cases rose dramatically. The period from onset to visiting clinic (OTV), from first visiting clinic to diagnosis (VTF), from onset to diagnosis (OTD) and from onset to be admitted (OTA) was longer in local cases than imported cases. Median age and the percentage of underlying diseases of severe/extreme cases were higher than mild/ordinary cases. OTV of severe/extreme cases was longer than mild/ordinary cases, while for VTF, the former was shorter than latter. The epidemic was divided into three stages. Most of cases in the first stage were imported cases, while in the second stage most of

cases were local cases. There were few cases in the third stages. We should strengthen personal protection and health monitoring for people in service industry, isolate the close contacts, and carry out publicity and education to raise the awareness of medical treatment for people, especially for old people. Clinical doctors should monitor the state of the patients older than 60 years and with underlying diseases. We should step up epidemic monitoring prevention and control measure for people return from holiday and immigrant to consolidate the effects of prevention and control work.

Publication Type

Journal article.

<288>

Accession Number

20203260844

Author

Choi SeJin

Title

A hidden key to COVID-19 management in Korea: public health doctors.

Source

Journal of Preventive Medicine and Public Health; 2020. 53(3):175-177. 3 ref.

Publisher

Korean Society for Preventive Medicine

Location of Publisher

Seoul

Country of Publication

Korea Republic

Abstract

Public health doctors of Korea contributed significantly to massive coronavirus disease 2019 (COVID-19) testing. They were immediately dispatched to epicenters of the COVID-19 pandemic, and have run tests at screening centers, airport quarantines and hospitals. However, their expertise from in-field experience has been often neglected. It is time to reorganize public health doctor system to better



prepare for future epidemics. Transforming and strengthening their roles as public health experts through systematic training is crucial.

Publication Type

Journal article.

<289>

Accession Number

20203260840

Author

Wirawan, I. M. A.; Januraga, P. P.

Title

Forecasting COVID-19 transmission and healthcare capacity in Bali, Indonesia.

Source

Journal of Preventive Medicine and Public Health; 2020. 53(3):158-163. 19 ref.

Publisher

Korean Society for Preventive Medicine

Location of Publisher

Seoul

Country of Publication

Korea Republic

Abstract

Objectives: In the current early phase of the coronavirus disease 2019 COVID-19 outbreak, Bali needs to prepare to face the escalation of cases, with a particular focus on the readiness of healthcare services. We simulated the future trajectory of the epidemic under current conditions, projected the impact of policy interventions, and analyzed the implications for healthcare capacity. Methods: Our study was based on the first month of publicly accessible data on new confirmed daily cases. A susceptible, exposed, infected, recovered SEIR model for COVID-19 was employed to compare the current dynamics of the disease with those predicted under various scenarios. Results: The fitted model for the cumulative number of confirmed cases in Bali indicated an effective reproduction number of 1.4.

Interventions have decreased the possible maximum number of cases from 71 125 on day 86 to 22 340 on day 119, and have prolonged the doubling time from about 9 days to 21 days. This corresponds to an approximately 30% reduction in transmissions from cases of mild infections. There will be 2780 available hospital beds, and at the peak on day 132, the number of severe cases is estimated to be roughly 6105. Of these cases, 1831 will need intensive care unit ICU beds, whereas the number of currently available ICU beds is roughly 446. Conclusions: The healthcare system in Bali is in danger of collapse; thus, serious efforts are needed to improve COVID-19 interventions and to prepare the healthcare system in Bali to the greatest extent possible.

Publication Type

Journal article.

<290>

Accession Number

20203272162

Author

Miles, L.; Shipway, R.

Title

Exploring the COVID-19 pandemic as a catalyst for stimulating future research agendas for managing crises and disasters at international sport events.

Source

Event Management; 2020. 24(4):537-552.

Publisher

Cognizant Communication Corporation

Location of Publisher

Putnam Valley

Country of Publication

USA

Abstract

While the interdisciplinary study of crisis, disaster, and emergency management has become increasingly sophisticated, the identification of synergies, useful concepts, and future research agendas in relation to studies within the domain of sport event management to inform these areas, is still at a very early stage of development. The far-reaching global impact of the COVID-19 pandemic further illustrates the timely importance of this research agenda for both sports events and broader studies in festivals and events. The purpose of this article is to critically scope the resilience landscape to help further understand how studies on both international sports events (ISEs) specifically, and both sport and event management studies more generally, could be better informed by disaster management and resilience studies. The article highlights eight key thematic areas that merits further investigation and combines to identify a multidisciplinary research agenda and framework for advancing knowledge on managing crises and disasters in both sport and event management studies.

#### Publication Type

Journal article.

<291>

#### Accession Number

20203270289

#### Author

Gregorio, G. B.; Ancog, R. C.

#### Title

Assessing the impact of the COVID-19 pandemic on agricultural production in Southeast Asia: toward transformative change in agricultural food systems.

#### Source

Asian Journal of Agriculture and Development; 2020. 17(1):1-13. 13 ref.

#### Publisher

Southeast Asian Regional Centre for Graduate Study and Research in Agriculture (SEARCA)

#### Location of Publisher

Los Banos

#### Country of Publication

Philippines

## Abstract

How will the COVID-19 pandemic affect the agriculture sector in Southeast Asia? Clearly, any disruptions in the agricultural food systems would create supply and demand shocks that would impact on the agriculture sector's immediate and long-term economic performance and food security contribution. Overall, the COVID-19 pandemic during the first quarter of year 2020 is estimated to result in 3.11 percent or 17.03 million tons reduction in aggregate volume of agricultural production in Southeast Asia due to decline in agricultural farm labor affecting 100.77 million individuals. This crisis could translate to 1.4 percent decrease in GDP of the Southeast Asian region, which is equivalent to USD 3.76 billion. Ensuring a systemic transformation of the agricultural systems into resilient, sustainable, productive, and inclusive food systems would be crucial for the future of Southeast Asia.

## Publication Type

Journal article.

<292>

## Accession Number

20203265134

## Author

Mamun, M. A.; Irfan Ullah

## Title

COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty? - the forthcoming economic challenges for a developing country. (Special issue on immunopsychiatry of COVID-19 pandemic.)

## Source

Brain, Behavior and Immunity; 2020. 87:163-166. 22 ref.

## Publisher

Elsevier

## Location of Publisher

New York

## Country of Publication

USA

## Abstract

Suicide increment during and afterwards a pandemic is highly common. The objective of the article was to report the prevalence and epidemiology of COVID-19 suicide cases in Pakistan for the first time. Most of the suicides occur due to: lockdown-related economic recession, fear of infection, and lockdown-related unemployment greatly aggravates the life-threatening situation.

## Publication Type

Journal article.

<293>

## Accession Number

20203265130

## Author

Jahanshahi, A. A.; Dinani, M. M.; Madavani, A. N.; Li JiZhen; Zhang, S. X.

## Title

The distress of Iranian adults during the COVID-19 pandemic - more distressed than the Chinese and with different predictors. (Special issue on immunopsychiatry of COVID-19 pandemic.)

## Source

Brain, Behavior and Immunity; 2020. 87:124-125. 7 ref.

## Publisher

Elsevier

## Location of Publisher

New York

## Country of Publication

USA

## Abstract

The objective of the article was to provide the first empirical evidence on distress and its predictors of Iranian under the COVID-19 pandemic. The findings suggest that the predictors of distress may vary across countries. While gender and exercise hours predicted distress in both Iran and China, age and

education predicted distress in China but not in Iran. Moreover, Iranian adults who worked from home, at the office, or had not worked during and before Covid-19 all reported lower distress than those who suspended working. In comparison, in China, only individuals who went to workplace reported significantly lower distress than those who suspended working. The differences in the predictors of distress during the COVID-19 pandemic across Iran and China are understandable, as countries vary in their medical systems, the availability of personal protective equipment (PPE), cultures, labor and employment conditions, the policies of lockdown, the ease of working from home and maintaining a living in a pandemic, and the information in both mainstream and social media, to name just a few. The results therefore suggest we need to identify useful predictors of mental health in individual countries during the COVID-19 pandemic.

Publication Type

Journal article.

<294>

Accession Number

20203265123

Author

Butler, M. J.; Barrientos, R. M.

Title

The impact of nutrition on COVID-19 susceptibility and long-term consequences. (Special issue on immunopsychiatry of COVID-19 pandemic.)

Source

Brain, Behavior and Immunity; 2020. 87:53-54. 11 ref.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

## Abstract

While all groups are affected by the COVID-19 pandemic, the elderly, underrepresented minorities, and those with underlying medical conditions are at the greatest risk. The high rate of consumption of diets high in saturated fats, sugars, and refined carbohydrates (collectively called Western diet, WD) worldwide, contribute to the prevalence of obesity and type 2 diabetes, and could place these populations at an increased risk for severe COVID-19 pathology and mortality. WD consumption activates the innate immune system and impairs adaptive immunity, leading to chronic inflammation and impaired host defense against viruses. Furthermore, peripheral inflammation caused by COVID-19 may have long-term consequences in those that recover, leading to chronic medical conditions such as dementia and neurodegenerative disease, likely through neuroinflammatory mechanisms that can be compounded by an unhealthy diet. Thus, now more than ever, wider access to healthy foods should be a top priority and individuals should be mindful of healthy eating habits to reduce susceptibility to and long-term complications from COVID-19.

## Publication Type

Journal article.

<295>

## Accession Number

20203265117

## Author

Kang LiJun; Ma SiMeng; Chen Min; Yang Jun; Wang Ying; Li RuiTing; Yao LiHua; Bai HanPing; Cai ZhongXiang; Yang BingXiang; Hu ShaoHua; Zhang KeRang; Wang GaoHua; Ma Ci; Liu ZhongChun

## Title

Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: a cross-sectional study. (Special issue on immunopsychiatry of COVID-19 pandemic.)

## Source

Brain, Behavior and Immunity; 2020. 87:11-17. many ref.

## Publisher

Elsevier

## Location of Publisher

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New York

Country of Publication

USA

Abstract

The severe 2019 outbreak of novel coronavirus disease (COVID-19), which was first reported in Wuhan, would be expected to impact the mental health of local medical and nursing staff and thus lead them to seek help. However, those outcomes have yet to be established using epidemiological data. To explore the mental health status of medical and nursing staff and the efficacy, or lack thereof, of critically connecting psychological needs to receiving psychological care, we conducted a quantitative study. This is the first paper on the mental health of medical and nursing staff in Wuhan. Notably, among 994 medical and nursing staff working in Wuhan, 36.9% had subthreshold mental health disturbances (mean PHQ-9: 2.4), 34.4% had mild disturbances (mean PHQ-9: 5.4), 22.4% had moderate disturbances (mean PHQ-9: 9.0), and 6.2% had severe disturbance (mean PHQ-9: 15.1) in the immediate wake of the viral epidemic. The noted burden fell particularly heavily on young women. Of all participants, 36.3% had accessed psychological materials (such as books on mental health), 50.4% had accessed psychological resources available through media (such as online push messages on mental health self-help coping methods), and 17.5% had participated in counseling or psychotherapy. Trends in levels of psychological distress and factors such as exposure to infected people and psychological assistance were identified. Although staff accessed limited mental healthcare services, distressed staff nonetheless saw these services as important resources to alleviate acute mental health disturbances and improve their physical health perceptions. These findings emphasize the importance of being prepared to support frontline workers through mental health interventions at times of widespread crisis.

Publication Type

Journal article.

<296>

Accession Number

20203264483

Author

Yamagishi, T.; Kamiya, H.; Kakimoto, K.; Suzuki, M.; Wakita, T.

Title



Descriptive study of COVID-19 outbreak among passengers and crew on Diamond Princess cruise ship, Yokohama Port, Japan, 20 January to 9 February 2020.

Source

Eurosurveillance; 2020. 25(23)22 ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

An outbreak of coronavirus disease (COVID-19) occurred on the Diamond Princess cruise ship making an international journey, which led to quarantine of the ship at Yokohama Port, Japan. A suspected COVID-19 case was defined as a passenger or crew member who developed a fever or respiratory symptoms, and a confirmed COVID-19 case had laboratory-confirmation of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. Between 3 and 9 February 2020, 490 individuals were tested for SARS-CoV-2 and 172 were positive (152) passengers (median age: 70 years; interquartile range (IQR): 64-75; males: 45%) and 20 crew (median age: 40 years; IQR: 35-48.5; males: 80%). Other than the Hong Kong-related index case, symptom onset for the earliest confirmed case was 22 January, 2 days after the cruise ship left port. Attack rates among passengers were similar across the decks, while beverage (3.3%, 2/61) and food service staff (5.7%, 14/245) were most affected. Attack rates tended to increase with age. A comprehensive outbreak response was implemented, including surveillance, provision of essential medical care, food and medicine delivery, isolation, infection prevention and control, sampling and disembarkation.

Publication Type

Journal article.

<297>

Accession Number

20203264479

Author

Oreshkova, N.; Molenaar, R. J.; Vreman, S.; Harders, F.; Munnink, B. B. O.; Hakze-Van Der Honing, R. W.; Gerhards, N.; Tolsma, P.; Bouwstra, R.; Sikkema, R. S.; Tacken, M. G. J.; Rooij, M. M. T. de; Weesendorp, E.; Engelsma, M. Y.; Brusckke, C. J. M.; Smit, L. A. M.; Koopmans, M.; Poel, W. H. M. van der; Stegeman, A.

Title

SARS-CoV-2 infection in farmed minks, the Netherlands, April and May 2020.

Source

Eurosurveillance; 2020. 25(23)18 ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

Respiratory disease and increased mortality occurred in minks on two farms in the Netherlands, with interstitial pneumonia and SARS-CoV-2 RNA in organ and swab samples. On both farms, at least one worker had coronavirus disease-associated symptoms before the outbreak. Variations in mink-derived viral genomes showed between-mink transmission and no infection link between the farms. Inhalable dust contained viral RNA, indicating possible exposure of workers. One worker is assumed to have attracted the virus from mink.

Publication Type

Journal article.

<298>

Accession Number

20203268702

Author

Madani, A.; Boutebal, S. E.; Bryant, C. R.

Title

The psychological impact of confinement linked to the coronavirus epidemic COVID-19 in Algeria.

Source

International Journal of Environmental Research and Public Health; 2020. 17(10)20 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The COVID-19 pandemic continues to spread in countries around the world. The impact of this virus is very great on populations following the application of total and partial containment measures. Our study aims to study the psychological impact of total and partial containment applied in Algeria, on 23 March 2020, following the spread of the virus COVID-19 and also studied the habits and behaviors of the Algerian population during this new way of life and this through a cross-sectional survey launched after three days from the start of confinement to quickly assess the impacts over the period from 23 March to 12 April 2020, by an online questionnaire which allowed us to obtain 678 responses from Internet users, who live in confinement in Algeria. According to the gender variable, our sample includes 405 men, or 59.7%, and 273 women, representing 40.3%. The results of the statistical analysis carried out using SPSS version 22.0 software showed that 50.3% of the respondents were in an anxious situation during these first three weeks of confinement. In addition, 48.2% feels stressed, 46.6% of the respondents confirmed to be feeling in a bad mood, and 47.4% do not stop thinking throughout the day about this epidemic and how to protect themselves. In addition, the study shows that 87.9% of the respondents in Algeria found it difficult to follow the confinement instructions. A significant change in the habits of the population was noted especially for the time of going to bed, the time of waking up, and the use of the Internet as well as the hours devoted to daily reading.

Publication Type

Journal article.

<299>

Accession Number

20203249963

Author

Hoogeveen, M. J.

Title

Pollen likely seasonal factor in inhibiting flu-like epidemics. A Dutch study into the inverse relation between pollen counts, hay fever and flu-like incidence 2016-2019.

Source

Science of the Total Environment; 2020. 7277 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

There is uncertainty if current models for the Covid-19 pandemic should already take into account seasonality. That is because current environmental factors do not provide a powerful explanation of such seasonality, especially given climate differences between countries with moderate climates. It is hypothesized that one major factor is overlooked: pollen count. Pollen are documented to invoke strong immune responses and might create an environmental factor that makes it more difficult for flu-like viruses to survive outside a host. This Dutch study confirms that there is a (highly) significant inverse correlation between pollen count and weekly changes in medical flu consults, and that there is a highly significant inverse correlation between hay fever incidence, as measured by prescribed medication revenues, and weekly flu consults. This supports the idea that pollen are a direct or indirect factor in the seasonality of flu-like epidemics. If seasonality will be observed during the covid-19 spread as well, it is not unlikely that pollen play a role.

Publication Type

Journal article.

<300>

Accession Number

20203258185

Author

Murrell, J.

Title

The challenges of small animal veterinary anaesthesia in 2020.

Source

Companion Animal; 2020. 25(5):132-136. 7 ref.

Publisher

MA Healthcare Limited

Location of Publisher

London

Country of Publication

UK

Abstract

Veterinary anaesthesia may be facing new challenges during the COVID-19 pandemic, with the potential for shortages of cylinders of oxygen and some drugs in veterinary practice if resources are diverted to the NHS. This article prepares the veterinary surgeon in the event of such shortages, and discusses how to safely limit the use of oxygen in practice as well as the use of alfaxalone as an alternative induction and maintenance agent to propofol. Finally, the use of ephedrine to manage hypotension as an alternative to other vasopressors and inotropes that may be in short supply is described.

Publication Type

Journal article.

<301>

Accession Number

20203258181

Author

Stokes, L.; Wright, I.

Title

Spring parasite update 2020.

Source

Companion Animal; 2020. 25(5):112-116. 4 ref.

Publisher

MA Healthcare Limited

Location of Publisher

London

Country of Publication

UK

Abstract

While COVID-19 is impacting all of us, the veterinary profession continue to do an amazing job of continuing pet health care while keeping risk to staff and clients to a minimum. During the crisis, parasite control remains a vital part of maintaining animal health, and ESCCAP UK and Ireland continues to help disseminate the latest evidence-based parasite control advice by email, phone, website and CPD platforms to keep pets healthy and to guard against zoonotic risk. This article will provide a brief overview of some of the current parasite hot topics and threats to the UK, taking information from the quarterly Parasite Forecast published on the ESCCAP UK and Ireland website: [www.esccapuk.org.uk](http://www.esccapuk.org.uk).

Publication Type

Journal article.

<302>

Accession Number

20203257418

Author

Levine, S.; Dhakal, G. P.; Penjor, T.; Chuki, P.; Namgyal, K.; Tshokey; Watts, M.

Title

Case report: the first case of COVID-19 in Bhutan.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 102(6):1205-1207. 9 ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

The initial cases of novel coronavirus disease-19 (COVID-19) in a country are of utmost importance given their impact on healthcare providers, the country's preparedness response, and the initial molding of the public perception toward this pandemic. In Bhutan, the index case was a 76-year-old immunocompromised man who had traveled from the United States and entered Bhutan as a tourist. He presented initially with vague gastrointestinal symptoms and later a cough. His atypical presentation led to a delay in diagnosis, but ultimately he was isolated and tested. On confirming the diagnosis of COVID-19, the patient was isolated in a separate hospital with a dedicated medical care team. All contacts were traced and quarantined. The patient's respiratory status deteriorated despite broad-spectrum antivirals, antibiotics, and intensive supportive care. He required intubation and was given a trial of intravenous immunoglobulin to modulate his likely aberrant immune response. Subsequently, the patient's clinical status improved, and after 8 days of hospitalization, he was transferred out of the country, where he recovered. This was a learning experience for the treating medical staff, the government, and the people of Bhutan.

Publication Type

Journal article.

<303>

Accession Number

20203257413

Author

Abena, P. M.; Decloedt, E. H.; Bottieau, E.; Suleman, F.; Adejumo, P.; Sam-Agudu, N. A.; Tamfum, J. J. M.; Seydi, M.; Eholie, S. P.; Mills, E. J.; Kallay, O.; Zumla, A.; Nachega, J. B.

Title

Chloroquine and Hydroxychloroquine for the prevention or treatment of COVID-19 in Africa: caution for inappropriate off-label use in healthcare settings.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 102(6):1184-1188. many ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

The novel severe acute respiratory syndrome-coronavirus-2 pandemic has spread to Africa, where nearly all countries have reported laboratory-confirmed cases of novel coronavirus disease (COVID-19). Although there are ongoing clinical trials of repurposed and investigational antiviral and immune-based therapies, there are as yet no scientifically proven, clinically effective pharmacological treatments for COVID-19. Among the repurposed drugs, the commonly used antimalarials chloroquine (CQ) and hydroxychloroquine (HCQ) have become the focus of global scientific, media, and political attention despite a lack of randomized clinical trials supporting their efficacy. Chloroquine has been used worldwide for about 75 years and is listed by the WHO as an essential medicine to treat malaria. Hydroxychloroquine is mainly used as a therapy for autoimmune diseases. However, the efficacy and safety of CQ/HCQ for the treatment of COVID-19 remains to be defined. Indiscriminate promotion and widespread use of CQ/HCQ have led to extensive shortages, self-treatment, and fatal overdoses. Shortages and increased market prices leave all countries vulnerable to substandard and falsified medical products, and safety issues are especially concerning for Africa because of its healthcare system limitations. Much needed in Africa is a cross-continental collaborative network for coordinated production, distribution, and post-marketing surveillance aligned to low-cost distribution of any approved COVID-19 drug; this would ideally be piggybacked on existing global aid efforts. Meanwhile, African countries should strongly consider implementing prescription monitoring schemes to ensure that any off-label CQ/HCQ use is appropriate and beneficial during this pandemic.



Publication Type

Journal article.

<304>

Accession Number

20203257409

Author

Tapia, L.

Title

COVID-19 and fake news in the Dominican Republic.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 102(6):1172-1174. 16 ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

The first case of novel coronavirus disease (COVID-19) in the Dominican Republic coincided with a period of political crisis. Distrust in governmental institutions shaped the critical phase of early response. Having a weak public health infrastructure and a lack of public trust, the Ministry of Health (MoH) began the fight against COVID-19 with a losing streak. Within 45 days of the first reported case, the political crisis and turmoil caused by "fake news" are limiting the capacity and success of the MoH response to the pandemic.

Publication Type

Journal article.

<305>

Accession Number

20203251247

Author

Khatua, S.

Title

Density, distancing, informal settlements and the pandemic.

Source

Economic and Political Weekly; 2020. 55(20)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Demographic density, particularly in the low-income settlements in urban India, is posing some unprecedented challenges to governance for containing the COVID-19 contagion. Through a case-based discussion of density, it is argued that the idea of containment through distancing is rather paradoxical. On the one hand it pushes for more proximation or clustering of the poor in congested urban spaces, while on the other it deepens a sense of estrangement in an already fragmented social milieu.

Publication Type

Journal article.

<306>

Accession Number

20203251246

Author

Ghosh, S. M.; Imrana Qadeer

Title

Significance of testing for identification of COVID-19.

Source

Economic and Political Weekly; 2020. 55(20)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The official and media discourse in India often focuses on the cumulative or daily detection of infected cases irrespective of the number of people tested and thus confuses the issue of disease progression. Based on the analysis of the number of infected cases identified and the number of people tested in eight states in India, it is emphasised that identification and quarantine of those who are infected slows down the spread of the disease. Mobilising resources towards the primary healthcare system for expanding contact tracing and investing in additional facilities to quarantine and treat infected patients is suggested.

Publication Type

Journal article.

<307>

Accession Number

20203255566

Author

Parmar, D.

Title

Public health during pandemics and beyond.

Source

Economic and Political Weekly; 2020. 55(17)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The rapid spread of COVID-19 in India brings into sharp focus home the important role of public health services. It is high time to strengthen public health services so that they can serve India's population well beyond the pandemic. While active state intervention in ensuring universal and comprehensive healthcare is the need of the hour, the government should also invest in the broader determinants of health by improving access to food and income as a collective responsibility to secure the health of the populations.

Publication Type

Journal article.

<308>

Accession Number

20203255541

Author

Tang, T.; Bidon, M.; Jaimes, J. A.; Whittaker, G. R.; Daniel, S.

Title

Coronavirus membrane fusion mechanism offers a potential target for antiviral development.

Source

Antiviral Research; 2020. 178many ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The coronavirus disease 2019 (COVID-19) pandemic has focused attention on the need to develop effective therapies against the causative agent, SARS-CoV-2, and also against other pathogenic coronaviruses (CoV) that have emerged in the past or might appear in future. Researchers are therefore focusing on steps in the CoV replication cycle that may be vulnerable to inhibition by broad-spectrum or specific antiviral agents. The conserved nature of the fusion domain and mechanism across the CoV family make it a valuable target to elucidate and develop pan-CoV therapeutics. In this article, we review the role of the CoV spike protein in mediating fusion of the viral and host cell membranes, summarizing the results of research on SARS-CoV, MERS-CoV, and recent peer-reviewed studies of SARS-CoV-2, and suggest that the fusion mechanism be investigated as a potential antiviral target. We also provide a supplemental file containing background information on the biology, epidemiology, and clinical features of all human-infecting coronaviruses, along with a phylogenetic tree of these coronaviruses.

Publication Type

Journal article.

<309>

Accession Number

20203255537

Author

Choy KaTim; Wong YinLam [Wong, Y. L. A.]; Prathanporn Kaewpreedee; Sia SinFun; Chen DongDong; Hui PuiYan [Hui, P. Y. K.]; Chu KaWing [Chu, K. W. D.]; Chan ChiWai [Chan, C. W. M.]; Cheung PakHang [Cheung, P. H. P.]; Huang XuHui; Peiris Malik; Yen HuiLing

Title

Remdesivir, lopinavir, emetine, and homoharringtonine inhibit SARS-CoV-2 replication in vitro.

Source

Antiviral Research; 2020. 178many ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

An escalating pandemic by the novel SARS-CoV-2 virus is impacting global health and effective therapeutic options are urgently needed. We evaluated the in vitro antiviral effect of compounds that were previously reported to inhibit coronavirus replication and compounds that are currently under evaluation in clinical trials for SARS-CoV-2 patients. We report the antiviral effect of remdesivir, lopinavir, homorringtonine, and emetine against SARS-CoV-2 virus in Vero E6 cells with the estimated 50% effective concentration at 23.15 µM, 26.63 µM, 2.55 µM and 0.46 µM, respectively. Ribavirin or favipiravir that are currently evaluated under clinical trials showed no inhibition at 100 µM. Synergy between remdesivir and emetine was observed, and remdesivir at 6.25 µM in combination with emetine at 0.195 µM may achieve 64.9% inhibition in viral yield. Combinational therapy may help to reduce the effective concentration of compounds below the therapeutic plasma concentrations and provide better clinical benefits.

Publication Type

Journal article.

<310>

Accession Number

20203252452

Author

Louis-Jean, J.; Cenat, K.; Sanon, D.; Stvil, R.

Title

Coronavirus (COVID-19) in Haiti: a call for action.

Source

Journal of Community Health; 2020. 45(3):437-439. 8 ref.

Publisher

Springer

Location of Publisher

New York

Country of Publication

USA

Abstract

Recently, the cholera outbreak in Haiti demonstrated just how unprepared the country is to rapidly isolate an outbreak of this magnitude, and its vulnerability to the COVID-19 pandemic. This communication briefly examines the health system in Haiti and its vulnerability toward the COVID-19 outbreak.

Publication Type

Journal article.

<311>

Accession Number

20203255515

Author

Mantlo, E.; Bukreyeva, N.; Maruyama, J.; Paessler, S.; Huang Cheng

Title

Antiviral activities of type I interferons to SARS-CoV-2 infection.

Source

Antiviral Research; 2020. 179many ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

There is an urgent need to identify antivirals to curtail the COVID-19 pandemic. Herein, we report the sensitivity of SARS-CoV-2 to recombinant human interferons  $\alpha$  and  $\beta$  (IFN $\alpha$ / $\beta$ ). Treatment with IFN- $\alpha$  or IFN- $\beta$  at a concentration of 50 international units (IU) per milliliter reduces viral titers by 3.4 log or over 4 log, respectively, in Vero cells. The EC<sub>50</sub> of IFN- $\alpha$  and IFN- $\beta$  treatment is 1.35 IU/ml and 0.76 IU/ml, respectively, in Vero cells. These results suggest that SARS-CoV-2 is more sensitive than many other human pathogenic viruses, including SARS-CoV. Overall, our results demonstrate the potential efficacy of human Type I IFN in suppressing SARS-CoV-2 infection, a finding which could inform future treatment options for COVID-19.

Publication Type

Journal article.

<312>

Accession Number

20203252435

Author

Reardon, T.; Ashok Mishra; Nuthalapati, C. S. R.; Bellemare, M. F.; Zilberman, D.

Title



COVID-19's disruption of India's transformed food supply chains.

Source

Economic and Political Weekly; 2020. 55(18)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

COVID-19 has created high transaction costs and uncertainty in India's transformed food supply chains, putting food security at risk as 92% of food consumption in India is purchased, predominantly from the private sector. Government faces the challenge of marshalling resources between mitigating the impending food crisis and containing the contagion as the risk of sociopolitical tensions looms large. It is recommended that the government concentrate on sustaining the food supply chains towards eventual rebound, recognising that government food distribution cannot replace even a tenth of the market.

Publication Type

Journal article.

<313>

Accession Number

20203252434

Author

Roy, A.; Dav&ecute;, S. K.

Title

Analysing Kerala's response to the COVID-19 pandemic when people and governments come together.

Source

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The COVID-19 pandemic has been a test of the Indian state's capacity to deal with the repercussions of a public health crisis. Kerala's success, as it continues to draw strength from its political culture of participatory governance and its emphasis on social welfare, is elaborated. Some of the decentralised, scientific, and humane policy measures taken to contain the virus are also elucidated.

Publication Type

Journal article.

<314>

Accession Number

20203256718

Author

Parakriti Gupta; Kapil Goyal; Poonam Kanta; Arnab Ghosh; Singh, M. P.

Title

Novel 2019-coronavirus on new year's eve.

Source

Indian Journal of Medical Microbiology; 2019. 37(4):459-477. 167 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

An ongoing apocalyptic outbreak of a new virus causing pneumonia-like clusters in Wuhan city, China, has gleamed the world. The outbreak, confirmed on the New Year's Eve 2020, has known no boundaries since then. The number has surpassed that of Severe Acute Respiratory Syndrome (SARS) and Middle East respiratory syndrome (MERS), and is uninterruptedly escalating. Being an RNA virus, it has a propensity to mutate due to the low proofreading capacity of RNA-dependent RNA polymerase. Step-wise mutations have led to the gradual spillover of virus and after crossing the inter-species interface, the virus has adapted itself for a stable human-to-human transmission. The disease caused by severe acute respiratory syndrome coronavirus (CoV)-2 (SARS-CoV-2) can prove deadlier if the so-called 'super-spreading events' emerge with time. Recent research has shown the maximum homology of 99% of SARS-CoV-2 to pangolins associated coronavirus, owing to which these can serve as potential intermediate host. India is responding swiftly to the emergency situation, and the whole of the country is under lockdown since 25 March 2020, to ensure social distancing. All the international flights are padlocked and the travellers are being screened at airports and seaports via thermal sensors, and quarantine for a period of 14 days is recommended. Three hundred and forty-five patients across the country tested positive with six fatalities as of 22 March 2020. No specific anti-CoV drugs are currently available. Patients are being treated with protease drugs are inhibitors, remdesivir, chloroquine, angiotensin-converting enzyme 2 inhibitors, ivermectin, sarilumab and tocilizumab, though none of these is Food and Drug Administration approved and are undergoing trials. Preventive measures such as social distancing, quarantine, cough etiquettes, proper hand washing, cleaning and decontaminating the surfaces are the mainstay for curbing the transmission of this virus. The present review highlights the update of novel SARS-CoV-2 in context to the Indian scenario.

Publication Type

Journal article.

<315>

Accession Number

20203257965

Author

Erg&ouml;r, G.

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Title

Lessons learned from coronavirus pandemic. [Turkish]

Source

Turkish Journal of Public Health; 2020. 18(1):99-102. 3 ref.

Publisher

Turkish Society of Public Health Specialists

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Since the day I started to write this article, there have been so many new developments in the world and in our country, even in the last 4 days, evaluating new information, reading what is written, making sense of interpretations, causes ones thoughts to jump from one point to another. I realized that it is not possible to prepare a systematic article that covers the subject completely. I started by making a list of messages and observations in my mind and sharing them with you. The pandemic experience was not the first in our working life, but the closest was the H1N1 pandemic in the 2009-2010 season. In our country, a total of 13,591 cases and 656 deaths due to pandemic influenza virus were confirmed. Hospitalization rate was 1.4%; the rate of hospitalization to intensive care unit was 13.6% and the mortality rate in intensive care patients was 19.6%.

Publication Type

Journal article.

<316>

Accession Number

20203251756

Author

Xu Hao; Yan ChongHuai; Fu QingYan; Xiao Kai; Yu YaMei; Han DeMing; Wang WenHua; Cheng JinPing

Title

Possible environmental effects on the spread of COVID-19 in China.

Source

Science of the Total Environment; 2020. 731many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

At the end of 2019, a novel coronavirus, designated as SARS-CoV-2, emerged in Wuhan, China and was identified as the causal pathogen of COVID-19. The epidemic scale of COVID-19 has increased dramatically, with confirmed cases increasing across China and globally. Understanding the potential affecting factors involved in COVID-19 transmission will be of great significance in containing the spread of the epidemic. Environmental and meteorological factors might impact the occurrence of COVID-19, as these have been linked to various diseases, including severe acute respiratory syndrome SARS and Middle East respiratory syndrome MERS, whose causative pathogens belong to the same virus family as SARS-CoV-2. We collected daily data of COVID-19 confirmed cases, air quality and meteorological variables of 33 locations in China for the outbreak period of 29 January 2020 to 15 February 2020. The association between air quality index AQI and confirmed cases was estimated through a Poisson regression model, and the effects of temperature and humidity on the AQI-confirmed cases association were analyzed. The results show that the effect of AQI on confirmed cases associated with an increase in each unit of AQI was statistically significant in several cities. The lag effect of AQI on the confirmed cases was statistically significant on lag day 1 relative risk RR = 1.0009, 95% confidence interval CI: 1.0004, 1.0013, day 2 RR = 1.0007, 95% CI: 1.0003, 1.0012 and day 3 RR = 1.0008, 95% CI: 1.0003, 1.0012. The AQI effect on the confirmed cases might be stronger in the temperature range of 10 degreesC  $\leq T < 20$  degreesC than in other temperature ranges, while the RR of COVID-19 transmission associated with AQI was higher in the relative humidity RH range of 10%  $\leq RH < 20\%$ . Results may suggest an enhanced impact of AQI on the COVID-19 spread under low RH.

Publication Type

Journal article.

<317>

Accession Number

20203251737

Author

Wang YiChen; Yuan Yuan; Wang QiYuan; Liu ChenGuang; Zhi Qiang; Cao JunJi

Title

Changes in air quality related to the control of coronavirus in China: implications for traffic and industrial emissions.

Source

Science of the Total Environment; 2020. 73132 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Measures taken to control the disease (Covid-19) caused by the novel coronavirus dramatically reduced the number of vehicles on the road and diminished factory production. For this study, changes in the air quality index (AQI) and the concentrations of six air pollutants (PM2.5, PM10, CO, SO2, NO2, and O3) were evaluated during the Covid-19 control period in northern China. Overall, the air quality improved, most likely due to reduced emissions from the transportation and secondary industrial sectors. Specifically, the transportation sector was linked to the NO2 emission reductions, while lower emissions from secondary industries were the major cause for the reductions of PM2.5 and CO. The reduction in SO2 concentrations was only linked to the industrial sector. However, the reductions in emissions did not fully eliminate air pollution, and O3 actually increased, possibly because lower fine particle loadings led to less scavenging of HO2 and as a result greater O3 production. These results also highlight need to control emissions from the residential sector.

Publication Type

Journal article.

<318>

Accession Number

20203248095

Author

Kozlovskiy, S.; Bilenko, D.; Kuzheliev, M.; Lavrov, R.; Kozlovskiy, V.; Mazur, H.; Taranych, A.

Title

The system dynamic model of the labor migrant policy in economic growth affected by COVID-19.  
(Special Issue: Covid-19.)

Source

Global Journal of Environmental Science and Management; 2020. 6(Special Issue):95-106. 32 ref.

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

At the end of 2019, the new virus called Coronavirus Disease (Covid-19) spread widely from China all over the world. In March 2020 the World Health Organization declared a new virus outbreak as "a global pandemic", and recommended social distancing and quarantine. Most countries in Europe have been quarantined. The social aspect of this issue is complicated by the fact that Europe nowadays hosts 82 million international migrants. If migrant workers leave the host country, it reduces the Covid-19 spread. Nevertheless, if migrant workers do not return, it will worsen the situation with the economic crisis. The subject of the study is the instrumental and mathematical aspects of impact simulation of labor migrants' policy on the economic growth of the host country affected by COVID-19 pandemic. The aim of the work is to develop the system dynamics model for assessing labor migrants' policy impact on the economic growth of the host country during COVID-19 pandemic. It examined through hypotheses of different scenarios of labor migrants policy impact on the host country economic growth in Covid-19 pandemic. The proposed model combines epidemiological and the economic growth models and relies upon real statistical data. The analysis was carried out in four European countries. The results of the study enabled to state that without migrant workers the gross domestic product may fall to 43% in Italy, 45% in Netherlands, 37% in Spain and 200% in Switzerland in 2020.

Publication Type

Journal article.

<319>

Accession Number

20203248094

Author

Masum, M. H.; Pal, S. K.

Title

Statistical evaluation of selected air quality parameters influenced by COVID-19 lockdown. (Special Issue: Covid-19.)

Source

Global Journal of Environmental Science and Management; 2020. 6(Special Issue):85-94. 21 ref.

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Air pollution has become a serious concern for its potential health hazard, however, often got less attention in developing countries, like Bangladesh. It is expected that worldwide lockdown due to COVID-19 widespread cause reduction in environmental pollution in particularly the air pollution: however, such changes have been different in different places. In Chittagong, a city scale lockdown came in force on 26 March 2020, a week after when first three cases of COVID-19 have been reported in Bangladesh. This study aims to statistically evaluate the effects of COVID-19 lockdown (26 March to 26 April 2020) on selected air quality pollutants and air quality index s. The daily average concentrations of air pollutants PM10, PM2.5, NO2, SO2 and CO of Chittagong city during COVID-19 lockdown were statistically evaluated and were compared with dry season data averaging over previous 8 years (2012 to 2019). During lockdown, except NO2, all other pollutants studied showed statistically significant decreasing trend. During the COVID-19 shutdown notable reduction of 40%, 32% and 13% compared to the daily mean concentrations of these previous dry season were seen for PM2.5, PM10 and NO2,



respectively. The improvement in air quality index value was found as 26% in comparison to the previous dry season due to less human activities in COVID-19 shutdown. The factor analysis showed that AQI in Chittagong city is largely influenced by PM10 and PM2.5 during COVID-19 shutdown. The lesson learnt in this forced measure of lockdown is not surprising and unexpected. It is rather thought provoking for the decision makers to tradeoff the tangible air quality benefits with ongoing development strategies' that was often overlooked directly or indirectly.

Publication Type

Journal article.

<320>

Accession Number

20203248093

Author

Caraka, R. E.; Lee, Y.; Kurniawan, R.; Herliansyah, R.; Kaban, P. A.; Nasution, B. I.; Gio, P. U.; Chen, R. C.; Toharudin, T.; Pardamean, B.

Title

Impact of COVID-19 large scale restriction on environment and economy in Indonesia. (Special Issue: Covid-19.)

Source

Global Journal of Environmental Science and Management; 2020. 6(Special Issue):65-84. 48 ref.

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

COVID-19 has a severe and widespread impact, especially in Indonesia. COVID-19 was first reported in Indonesia on March 03, 2020 then rapidly spread to all 34 provinces by April 09, 2020. Since then,

COVID-19 is declared a state of national disaster and health emergency. This research analyzes the difference of CO, HCHO, NO<sub>2</sub>, and SO<sub>2</sub> density in Jakarta, West Java, Central Java, and South Sulawesi before and during the pandemic. Also, this study assesses the effect of large scale restrictions on the economic growth during COVID-19 pandemic in Indonesia. In a nutshell, the results on Wilcoxon and Fisher test by significance level  $\alpha=5\%$  as well as odds ratio showed that there are significant differences of CO density in all regions with highest odds ratio in East Java (OR=9.07), significant differences of HCHO density in DKI Jakarta, East Java, and South Sulawesi. There are significant differences of NO<sub>2</sub> density before and during public activities limitation in DKI Jakarta, West Java, East Java, and South Sulawesi. However, the results show that there are no significant differences of SO<sub>2</sub> density in all regions. In addition, this research shows that there are significant differences of retail, grocery and pharmacy, and residential mobility before and during the COVID-19 pandemic in Indonesia. This research also shows that during the COVID-19 pandemic there are severe economic losses, industry, companies, and real disruptions are severe for all levels of life due to large scale restrictions.

Publication Type

Journal article.

<321>

Accession Number

20203248091

Author

Ouhsine, O.; Ouigmane, A.; Layati, E.; Aba, B.; Isaifan, R. J.; Berkani, M.

Title

Impact of COVID-19 on the qualitative and quantitative aspect of household solid waste. (Special Issue: Covid-19.)

Source

Global Journal of Environmental Science and Management; 2020. 6(Special Issue):41-52. many ref.

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

## Country of Publication

Iran

## Abstract

Household waste is the residue generated daily by people as a result of consuming goods and services. The qualitative and quantitative aspects depend on the lifestyle and standard of living of citizens. Hence a change in habits, following an economic or health crisis, can influence the production of waste and its composition. The objective of the present work is to assess the impact of lockdown on the generation of trash and on the habits related to the consumption of goods in two communes in Morocco. More specifically, this study would investigate the behavior of citizens with regard to protective equipment against the coronavirus COVID-19. The results of the survey show that there is an influence of lockdown on the items purchased during this period, with an increase in the purchase of disinfectant products and a decrease in the consumption of meat and canned goods. Thus, the results showed that the quantity of organic fractions had decreased in the domestic waste with the appearance of other fractions such as residues of cleaning products. In addition, the survey conducted showed that 87% of respondents mix coronavirus protective equipment with household waste, which may contribute to the spread of the virus. Concerning the quantitative aspect, the weigh-ups showed that the monthly rate of increase of waste production between the months of February and March 2019 and the corresponding period in 2020 have decreased from +11.41% to +3.8% in the city of Khenifra (from 2,572 ton in Mars 2019 to 2,456 ton in the correspondent period in 2020) and from +4.73% to -1.23% in the center of Tighassaline (from 136 ton in Mars 2019 to 123 ton in the correspondent period in 2020).

## Publication Type

Journal article.

<322>

## Accession Number

20203248090

## Author

Gupta, N.; Tomar, A.; Kumar, V.

## Title

The effect of COVID-19 lockdown on the air environment in India. (Special Issue: Covid-19.)

## Source

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

COVID-19 is a huge tragedy for the world community. Everything in the world is affected due to this pandemic right from economy to resources where the economy of major countries of the world are facing recession and resources are surplus with no takers at all. The measures to contain COVID-19 pandemic include lockdown, social distancing, isolation, and home quarantine. Lockdown adopted by the different governments which involve non-functioning of all the industry and manufacturing units. However, as a blessing in disguise, these measures have a positive effect on the environment in terms of reduction in toxic gasses like nitrogen dioxide, aerosols, atmosphere ozone, particulate matter, and improvement in air quality. In this paper, the effect on various environmental parameters like aerosol, ozone, particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide, and temperature on India by lockdown due to COVID-19 as a preventive measure has been analyzed. The work involves the refining and preprocessing of raw data of this year and last year of various harmful pollutants present in the environment along with satellite images from National Aeronautics and Space Administration for comparison of different parameters. It has been observed that with the above adopted measures temperature has been reduced to near about 15 degree Celsius, there is also reduction in humidity i.e. it is reduced to 40%, particulate matter (PM2.5) reaches near about normal i.e. 40 g/m<sup>3</sup> and carbon monoxide levels has also been reduced to 10 ppm. The main idea is to emphasize the fact that how the environment is self-healing during the lockdown. And this study will be beneficial to environmentalists and industry professionals to make the future strategy for improving the environment.

Publication Type

Journal article.

<323>

Accession Number

20203248032

Author

Avinash Kumar; Manish Kumar

Title

COVID-19 and the public health system in Bihar.

Source

Economic and Political Weekly; 2020. 55(16)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Bihar's public healthcare system is not equipped to deal with the challenge of COVID-19. The density of testing centres is the worst for Bihar in the country, with one testing centre for a population of 110 million. Besides, it lacks in both infrastructure and human resources in the health arena and, thus, is unprepared to deal with and properly respond to the health crisis.

Publication Type

Journal article.

<324>

Accession Number

20203241121

Author

Alonso-Galb&aacute;n, P.; Alema&ntilde;y-Castilla, C.

Title

Curbing misinformation and disinformation in the COVID-19 era: a view from Cuba.

Source

MEDICC Review; 2020. 22(2):45-46. 15 ref.

Publisher

MEDICC

Location of Publisher

Decatur

Country of Publication

USA

Abstract

As COVID-19 was diagnosed in Cuba and began to spread, a number of initiatives have been launched to minimize the impact of rumors and misinformation on public opinion and support WHO's call for faster access to reliable sources. Various specialized platforms-such as those of the Ministry of Public Health (MINSAP) and Cuba's health network, Infomed (<http://www.sld.cu/>)-offer opportunities to compare incoming information with reliable sources. An example is the website Infecciones por coronavirus (coronavirus infections) (<https://temas.sld.cu/coronavirus/>), created on Infomed in 2003, but now continually updated with information on COVID-19 (<https://temas.sld.cu/coronavirus/covid-19/>), obtained from official, credible sources, intended specifically for health professionals involved in epidemiological surveillance, control, attention to vulnerable groups, diagnosis and care of patients infected. As a complement, Infomed has developed a mobile application for Android that provides current, reliable information on COVID-19: COVID-19-InfoCU ([https://www.apklis.cu/aplicacion/cu.sld.COVID\\_19\\_InfoCU](https://www.apklis.cu/aplicacion/cu.sld.COVID_19_InfoCU)). Other media have joined efforts to combat misinformation in Cuba, notably Juventud Tecnica (JT) (<http://www.juventudtecnica.cu/>) the country's only mass-circulation magazine devoted entirely to science, technology and the environment, with an emphasis on investigative journalism. Late in 2019, digital JT launched its #VerificaJT project, aimed at debunking misinformation in various scientific fields.

Publication Type

Journal article.

<325>

Accession Number

20203248522

Author

Sourabh Saxena; Karishma Srivastava; Roshni Dilbagi; Ashish Saxena

Title

Telemedicine units for COVID-19: An experience from Madhya Pradesh. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):277-280. 8 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

The objective of the article was to examine the utilization of telemedicine in the fight against COVID-19. In Madhya Pradesh, within 4 days of the establishment of telemedicine unit, more than 13700 home quarantined individuals have been successfully tele-consulted through medical officers across 51 districts and managed as per the protocols; out of these 757 individuals were connected through 104/108 ambulance services and nearly 3671 individuals are connected through district MMU/RRT units for further management. Telemedicine is of paramount importance at this unprecedented situation that humanity is facing. With the recent guidelines of telemedicine issued, it would only be prudent to commence this system and contribute to this global fight against COVID-19.

Publication Type

Journal article.

<326>

Accession Number

20203248521

Author

Shrikala Baliga; Suchitra Shenoy; Pooja Rao

Title

Laboratory diagnosis, safety and testing strategies of novel SARS COV 2. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):273-276. 11 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

The COVID 19 Pandemic is the most defining health care crisis of the present times. It has challenged the health care facilities, overwhelmed the health care personnel and baffled the scientists and researchers. There is no quick fix in a pandemic of this proportion. The past four months has seen many new aspects of this disease, and newer evolving strategies to rein in the pandemic. This commentary seeks to deal with the various aspects of laboratory diagnosis, safety and testing strategies adopted by different countries.

Publication Type

Journal article.

<327>

Accession Number

20203227852

Author



Correa-Martínez, C. L.; Kampmeier, S.; Kämpers, P.; Schwierzeck, V.; Hennies, M.; Hafezi, W.; Kühn, J.; Pavenstädt, H.; Ludwig, S.; Mellmann, A.

Title

A pandemic in times of global tourism: superspreading and exportation of COVID-19 cases from a ski area in Austria.

Source

Journal of Clinical Microbiology; 2020. 58(6)4 ref.

Publisher

American Society for Microbiology (ASM)

Location of Publisher

Washington, D.C.

Country of Publication

USA

Abstract

Between 9 and 16 March, increasing numbers of COVID-19 cases were detected at University Hospital Munster (UKM), a tertiary care center in northwestern Germany. Of 90 patients, 36 had recently visited Ischgl (39.6%), a popular ski town in the Austrian Alps. With 22,626 beds for visitors, 492,798 tourists arrived in the 2018/2019 season, including guests from over 20 different countries. American tourists represented the most relevant group of non-European guests, with 6,886 overnight stays. Several of our patients had visited apres-ski bars in Ischgl, and some recalled having contact with subjects with subsequently confirmed cases. Patients were predominantly male (61.1%) and aged 20 to 71 years (mean, 43.3). All displayed symptoms, including cough (69.4%), fever (55.6%), and dysphagia (33.3%). Quantitative real-time PCR analysis of nasopharyngeal swabs was performed, yielding positive SARS-CoV-2 results in 36 Ischgl cases. Another nine Ischgl tourists had equivocal test results, implying a potentially higher proportion of Ischgl-related COVID-19 cases. The findings support European data indicating the exportation of COVID-19 cases from a cluster in Ischgl.

Publication Type

Correspondence.

<328>

Accession Number

20203257213

Author

Varsha Potdar; Cherian, S. S.; Deshpande, G. R.; Ullas, P. T.; Yadav, P. D.; Choudhary, M. L.; Rohan Gughe; Veena Vipat; Sheetal Jadhav; Savita Patil; Dimpal Nyayanit; Triparna Majumdar; Atul Walimbe; Shivshankar Gaikwad; Hitesh Dighe; Shete-Aich, A.; Sreelekshmy Mohandas; Deepika Chowdhury; Gajanan Sapkal; Atanu Basu; Nivedita Gupta; Gangakhedkar, R. R.; Sidhartha Giri; Lalit Dar; Amita Jain; Bharati Malhotra; et al.

Title

Genomic analysis of SARS-CoV-2 strains among Indians returning from Italy, Iran & China, & Italian tourists in India.

Source

Indian Journal of Medical Research; 2020. 151(2/3):255-260. 14 ref.

Publisher

Indian Council of Medical Research

Location of Publisher

New Delhi

Country of Publication

India

Abstract

The objective of the article was to report the molecular epidemiology and genomic analysis of SARS-CoV-2 strains from international travellers (Indians) returning from Italy, Iran, and China.

Publication Type

Correspondence.

<329>

Accession Number

20203257206

#### Author

Nivedita Gupta; Tarun Bhatnagar; Kiran Rade; Manoj Murhekar; Raman Gangakhedkar; Anu Nagar

#### Title

Strategic planning to augment the testing capacity for COVID-19 in India.

#### Source

Indian Journal of Medical Research; 2020. 151(2/3):210-215. 8 ref.

#### Publisher

Indian Council of Medical Research

#### Location of Publisher

New Delhi

#### Country of Publication

India

#### Abstract

**Background & objectives:** Nearly 5,500 tests for coronavirus disease 2019 (COVID-19) had been conducted on March 31, 2020 across the Indian Council of Medical Research (ICMR)-approved public and private laboratories in India. Given the need to rapidly increase testing coverage, we undertook an exercise to explore and quantify interventions to increase the daily real-time reverse transcription-polymerase chain reaction (qRT-PCR)-based testing capacity over the next few months. The objective of this exercise was to prepare a potential plan to scale-up COVID-19 testing in India in the public sector. **Methods:** Potential increase in daily testing capacity of the existing public laboratories was calculated across the three base scenarios of shifts (9, 16 and 24 h). Additional testing capacity was added for each shift scenario based on interventions ranging from procurement of additional qRT-PCR machines, leveraging spare capacity on available qRT-PCR machines not drafted into COVID-19 testing, to in-laboratory process optimization efforts. **Results:** Moving to a 24 h working model in the existing approved laboratories can enhance the daily testing capacity to 40,464 tests/day. The capacity can be further bolstered by leveraging qRT-PCR and nucleic acid amplification test (NAAT)-based machines available with the Multidisciplinary Research Units (MRUs), National AIDS Control Organisation (NACO) and National Tuberculosis Elimination Programme (NTEP). Using combination/multiplex kits, and provision of automated RNA extraction platforms at all laboratories could also optimize run time and contribute to capacity increase by 1.5-2 times. **Interpretation & conclusions:** Adopting these interventions could help increase public sector's daily testing capacity to nearly 100,000-120,000 tests/day. It is important to note that utilization of the scaled-up testing capacity will require deployment of additional workforce, procurement of corresponding commodities for testing and scale-up of sample collection and transportation efforts.

#### Publication Type

Journal article.

<330>

Accession Number

20203257202

Author

Mourya, D. T.; Gajanan Sapkal; Yadav, P. D.; Belani, S. K. M.; Anita Shete; Nivedita Gupta

Title

Biorisk assessment for infrastructure & biosafety requirements for the laboratories providing coronavirus SARS-CoV-2/(COVID-19) diagnosis.

Source

Indian Journal of Medical Research; 2020. 151(2/3):172-176. 24 ref.

Publisher

Indian Council of Medical Research

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Novel coronavirus infection [coronavirus disease 2019 (COVID-19)] has spread to more than 203 countries of various regions including Africa, America, Europe, South East Asia and Western Pacific. The WHO had declared COVID-19 as the global public health emergency and subsequently as pandemic because of its worldwide spread. It is now one of the top-priority pathogens to be dealt with, because of high transmissibility, severe illness and associated mortality, wide geographical spread, lack of control measures with knowledge gaps in veterinary and human epidemiology, immunity and pathogenesis. The quick detection of cases and isolating them has become critical to contain it. To meet the increasing demand of the diagnostic services, it is necessary to enhance and expand laboratory capabilities since existing laboratories cannot meet the emerging demand. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a BSL-2 (Biosafety Level 2) agent and needs to be handled in biosafety cabinet using standard precautions. This review highlights minimum requirements for the diagnostic laboratories opting testing of material for the diagnosis of COVID-19 and associated biorisk to the individuals and to the community.

Publication Type

Journal article.

<331>

Accession Number

20203254680

Author

Faridi, S.; Niazi, S.; Sadeghi, K.; Naddafi, K.; Yavarian, J.; Shamsipour, M.; Jandaghi, N. Z. S.; Sadeghniaat, K.; Nabizadeh, R.; Yunesian, M.; Momeniha, F.; Mokamel, A.; Hassanvand, M. S.; Azad, T. M.

Title

A field indoor air measurement of SARS-CoV-2 in the patient rooms of the largest hospital in Iran.

Source

Science of the Total Environment; 2020. 72518 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The coronavirus disease 2019 (COVID-19) emerged in Wuhan city, China, in late 2019 and has rapidly spread throughout the world. The major route of transmission of SARS-CoV-2 is in contention, with the airborne route a likely transmission pathway for carrying the virus within indoor environments. Until now, there has been no evidence for detection of airborne severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and this may have implication for the potential spread of the COVID-19. We investigated the air of patient rooms with confirmed COVID-19 in the largest hospital in Iran, on March 17, 2020. To collect the SARS-CoV-2 particles, ten air samples were collected into the sterile standard midget impingers containing 20 mL DMEM with 100 µg/mL streptomycin, 100 U/mL penicillin and 1%

antifoam reagent for 1 h. Besides, indoor particle number concentrations, CO<sub>2</sub>, relative humidity and temperature were recorded throughout the sampling duration. Viral RNA was extracted from samples taken from the impingers and Reverse-Transcription PCR (RT-PCR) was applied to confirm the positivity of collected samples based on the virus genome sequence. Fortunately, in this study all air samples which were collected 2 to 5 m from the patients' beds with confirmed COVID-19 were negative. Despite we indicated that all air samples were negative, however, we suggest further in vivo experiments should be conducted using actual patient cough, sneeze and breath aerosols in order to show the possibility of generation of the airborne size carrier aerosols and the viability fraction of the embedded virus in those carrier aerosols.

Publication Type

Journal article.

<332>

Accession Number

20203258934

Author

Wasdani, K. P.; Prasad, A.

Title

The impossibility of social distancing among the urban poor: the case of an Indian slum in the times of COVID-19.

Source

Local Environment; 2020. 25(5):414-418. 19 ref.

Publisher

Routledge

Location of Publisher

Abingdon

Country of Publication

UK

Abstract

As cases of COVID-19 were rising in India and the country's political leadership instituted a nationwide lockdown, one of the authors of this article received a timely invitation from a friend - a government official - to make rounds with him and his team to various neighbourhoods within the metropolitan city of Bangalore. The team consisted of members working in healthcare, municipal corporation, and local police, and was tasked with ensuring that the government enacted measures of social distancing were being observed by local residents in public spaces. The author witnessed, in real time, the ways in which residents were engaging with the containment measures that were instituted as part of the political leadership's attempt to flatten the curve of COVID-19. What was observed in an urban slum was particularly poignant and illuminating. The observations captured how, for residents of the urban slum, social distancing is more an aspiration than an attainable reality. Indeed, social distancing is impossible if such a protocol does not come with concomitant economic support targeted to the most socially vulnerable in society.

Publication Type

Journal article.

<333>

Accession Number

20203258929

Author

Schmidhuber, J.

Title

COVID-19: from a global health crisis to a global food crisis?

Source

FAO Food Outlook; 2020. (June):63-71.

Publisher

Food and Agriculture Organization of the United Nations (FAO)

Location of Publisher

Rome

Country of Publication

Italy

## Abstract

This feature article examines the current and likely impacts of the COVID-19 pandemic with a focus on international food markets. Such markets are not insulated from changes in the wider economy, therefore emphasis is placed on how broader economic shocks have, and can be, transmitted to food markets, notwithstanding the direct transmittable effects of the novel virus to the agricultural sector. The analysis presented in this article suggests that a COVID-19-induced global food crisis is not on the horizon. Indeed, while the world food economy was ill-prepared for the shocks that characterized the global food crisis in 2007/08 and the recession that followed in 2009, this cannot be said of the situation in 2020. Global food production prospects are positive, stocks are high, international food prices are low, trade is broader-based with more importing and exporting countries, costs of bulk transportation are depressed, fertilizer and input prices remain stable, energy prices have collapsed and competition from biofuels has virtually seized.

## Publication Type

Bulletin article.

<334>

## Accession Number

20203250875

## Author

Li Li; Li Qing; Huang Ling; Wang Qian; Zhu AnSheng; Xu Jian; Liu ZiYi; Li HongLi; Shi LiShu; Li Rui; Majid Azari; Wang YangJun; Zhang XiaoJuan; Liu ZhiQiang; Zhu YongHui; Zhang Kun; Xue ShuHui; Gee Ooi, M. C.; Zhang DongPing; Chan, A.

## Title

Air quality changes during the COVID-19 lockdown over the Yangtze River Delta Region: an insight into the impact of human activity pattern changes on air pollution variation.

## Source

Science of the Total Environment; 2020. 73221 ref.

## Publisher

Elsevier Ltd

## Location of Publisher



Oxford

Country of Publication

UK

Abstract

The outbreak of COVID-19 has spreaded rapidly across the world. To control the rapid dispersion of the virus, China has imposed national lockdown policies to practise social distancing. This has led to reduced human activities and hence primary air pollutant emissions, which caused improvement of air quality as a side-product. To investigate the air quality changes during the COVID-19 lockdown over the YRD Region, we apply the WRF-CAMx modelling system together with monitoring data to investigate the impact of human activity pattern changes on air quality. Results show that human activities were lowered significantly during the period: industrial operations, VKT, constructions in operation, etc. were significantly reduced, leading to lowered SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> and VOCs emissions by approximately 16-26%, 29-47%, 27-46% and 37-57% during the Level I and Level II response periods respectively. These emission reduction has played a significant role in the improvement of air quality. Concentrations of PM<sub>2.5</sub>, NO<sub>2</sub> and SO<sub>2</sub> decreased by 31.8%, 45.1% and 20.4% during the Level I period; and 33.2%, 27.2% and 7.6% during the Level II period compared with 2019. However, ozone did not show any reduction and increased greatly. Our results also show that even during the lockdown, with primary emissions reduction of 15%-61%, the daily average PM<sub>2.5</sub> concentrations range between 15 and 79 mug m<sup>-3</sup>, which shows that background and residual pollutions are still high. Source apportionment results indicate that the residual pollution of PM<sub>2.5</sub> comes from industry (32.2-61.1%), mobile (3.9-8.1%), dust (2.6-7.7%), residential sources (2.1-28.5%) in YRD and 14.0-28.6% contribution from long-range transport coming from northern China. This indicates that in spite of the extreme reductions in primary emissions, it cannot fully tackle the current air pollution. Re-organisation of the energy and industrial strategy together with trans-regional joint-control for a full long-term air pollution plan need to be further taken into account.

Publication Type

Journal article.

<335>

Accession Number

20203250871

Author

Lal Preet; Kumar, A.; Sheetal Kumari; Purabi Saikia; Dayanandan, A.; Dibyendu Adhikari; Khan, M. L.; Shubham Kumar

Title

The dark cloud with a silver lining: assessing the impact of the SARS COVID-19 pandemic on the global environment.

Source

Science of the Total Environment; 2020. 732many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The Severe Acute Respiratory Syndrome-Coronavirus Disease 2019 (COVID-19) pandemic caused by a novel coronavirus known as SARS-CoV-2 has caused tremendous suffering and huge economic losses. We hypothesized that extreme measures of partial-to-total shutdown might have influenced the quality of the global environment because of decreased emissions of atmospheric pollutants. We tested this hypothesis using satellite imagery, climatic datasets (temperature, and absolute humidity), and COVID-19 cases available in the public domain. While the majority of the cases were recorded from Western countries, where mortality rates were strongly positively correlated with age, the number of cases in tropical regions was relatively lower than European and North American regions, possibly attributed to faster human-to-human transmission. There was a substantial reduction in the level of nitrogen dioxide (NO<sub>2</sub>: 0.00002 mol m<sup>-2</sup>), a low reduction in CO (<0.03 mol m<sup>-2</sup>), and a low-to-moderate reduction in Aerosol Optical Depth (AOD: ~0.1-0.2) in the major hotspots of COVID-19 outbreak during February-March 2020, which may be attributed to the mass lockdowns. Our study projects an increasing coverage of high COVID-19 hazard at absolute humidity levels ranging from 4 to 9 g m<sup>-3</sup> across a large part of the globe during April-July 2020 due to a high prospective meteorological suitability for COVID-19 spread. Our findings suggest that there is ample scope for restoring the global environment from the ill-effects of anthropogenic activities through temporary shutdown measures.

Publication Type

Journal article.

<336>

Accession Number

20203250836

Author

Murphy, E. J.; Masterson, C.; Rezoagli, E.; O'Toole, D.; Major, I.; Stack, G. D.; Lynch, M.; Laffey, J. G.; Rowan, N. J.

Title

beta-Glucan extracts from the same edible shiitake mushroom *Lentinus edodes* produce differential in-vitro immunomodulatory and pulmonary cytoprotective effects - implications for coronavirus disease (covid-19) immunotherapies.

Source

Science of the Total Environment; 2020. 73240 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Coronavirus pneumonia is accompanied by rapid virus replication, where a large number of inflammatory cell infiltration and cytokine storm may lead to acute lung injury, acute respiratory distress syndrome (ARDS) and death. The uncontrolled release of pro-inflammatory cytokines, including interleukin (IL)-1 $\beta$  and IL-6, is associated with ARDS. This constituted the first study to report on the variability in physicochemical properties of beta-glucans extracts from the same edible mushroom *Lentinus edodes* on the reduction of these pro-inflammatory cytokines and oxidative stress. Specifically, the impact on the immunomodulatory and cytoprotective properties of our novel in 'house' (IH-Lentinan, IHL) and a commercial (Carbosynth-Lentinan, CL) Lentinan extract were investigated using in vitro models of lung injury and macrophage phagocytosis. CL comprised higher amounts of  $\alpha$ -glucans and correspondingly less beta-glucans. The two lentinan extracts demonstrated varying immunomodulatory activities. Both Lentinan extracts reduced cytokine-induced NF- $\kappa$ B activation in human alveolar epithelial A549 cells, with the IHL extract proving more effective at lower doses. In contrast, in activated THP-1 derived macrophages, the CL extract more effectively attenuated pro-inflammatory cytokine production (TNF- $\alpha$ , IL-8, IL-2, IL-6, IL-22) as well as TGF- $\beta$  and IL-10. The CL extract attenuated oxidative stress-induced early apoptosis, while the IHL extract attenuated late apoptosis. Our findings demonstrate significant physicochemical differences between Lentinan extracts, which produce

differential in vitro immunomodulatory and pulmonary cytoprotective effects that may also have positive relevance to candidate COVID-19 therapeutics targeting cytokine storm.

Publication Type

Journal article.

<337>

Accession Number

20203253904

Author

Gao JunLing; Zheng PinPin; Jia YingNan; Chen Hao; Mao YiMeng; Chen SuHong; Wang Yi; Fu Hua; Dai JunMing

Title

Mental health problems and social media exposure during COVID-19 outbreak.

Source

PLoS ONE; 2020. 15(4)24 ref.

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

Huge citizens expose to social media during a novel coronavirus disease (COVID-19) outbreak in Wuhan, China. We assess the prevalence of mental health problems and examine their association with social media exposure. A cross-sectional study among Chinese citizens aged  $\geq 18$  years old was conducted during Jan 31 to Feb 2, 2020. Online survey was used to do rapid assessment. Total of 4872 participants from 31 provinces and autonomous regions were involved in the current study. Besides demographics and social media exposure (SME), depression was assessed by The Chinese version of WHO-Five Well-Being Index (WHO-5) and anxiety was assessed by Chinese version of generalized

anxiety disorder scale (GAD-7). multivariable logistic regressions were used to identify associations between social media exposure with mental health problems after controlling for covariates. The prevalence of depression, anxiety and combination of depression and anxiety (CDA) was 48.3% (95%CI: 46.9%-49.7%), 22.6% (95%CI: 21.4%-23.8%) and 19.4% (95%CI: 18.3%-20.6%) during COVID-19 outbreak in Wuhan, China. More than 80% (95%CI:80.9%-83.1%) of participants reported frequently exposed to social media. After controlling for covariates, frequently SME was positively associated with high odds of anxiety (OR = 1.72, 95%CI: 1.31-2.26) and CDA (OR = 1.91, 95%CI: 1.52-2.41) compared with less SME. Our findings show there are high prevalence of mental health problems, which positively associated with frequently SME during the COVID-19 outbreak. These findings implicated the government need pay more attention to mental health problems, especially depression and anxiety among general population and combating with "infodemic" while combating during public health emergency.

#### Publication Type

Journal article.

<338>

#### Accession Number

20203250818

#### Author

Ma XiuQing; Li ShiYu; Yu ShaoBin; Ouyang Ying; Zeng Lin; Li Xiao; Li Hai

#### Title

Emergency management of the prevention and control of novel coronavirus pneumonia in specialized branches of hospital.

#### Source

Academic Emergency Medicine; 2020. 27(4):312-316. 11 ref.

#### Publisher

Wiley

#### Location of Publisher

Boston

#### Country of Publication

USA

## Abstract

The objective of the article was to present the emergency management experience of Wenjiang Hospital in West China in the prevention and control of the NCP epidemic. During the epidemic prevention and control period, access control management was strictly enforced in the ward. Each unit was separated by access control or a temporary fence, forming a relatively independent and safe area. The entrance and exit were carefully managed and guarded by professional nurses, and access was restricted. Every person entering the ward must verify his/her identity as an employee, patient or visitor, have his/her temperature monitored, and wear a mask, and the residence history of accompanying visitors was carefully checked. All personnel were required to refrain from unnecessary medical activities and prohibited from walking to other places. To reduce crowd gathering, the number of companions was limited to one per patient, and whether visitors were allowed to stay depended on the condition of the patient. Each patient admitted to the hospital was required to fill out the outbreak-related investigation form and signed the informed consent form for accompanying management and epidemic commitment form. The management of all staff in medical care, work, property, administration, etc., was strengthened; those who had an epidemiologic history, fever, or other discomfort were strictly isolated, and daily monitoring and reporting were performed. Ophthalmology, otolaryngology, physical examination, endoscopy, etc., were stopped. The number of outpatients and inpatients was reduced, and all departments were to be gradually opened to the public according to the epidemic situation.

## Publication Type

Journal article.

<339>

## Accession Number

20203250817

## Author

Cao YuBin; Li Qin; Chen Jing; Guo Xia; Miao Cheng; Yang Hui; Chen ZiHang; Li ChunJie; Li LongJiang

## Title

Hospital emergency management plan during the COVID-19 epidemic.

## Source

Academic Emergency Medicine; 2020. 27(4):309-311. 8 ref.

## Publisher

Wiley

Location of Publisher

Boston

Country of Publication

USA

Abstract

The objective of the article aims to present the interim hospital management measures on the health care personnel protection in West China Hospital under the condition of intense workload and PPE supply shortage after the outbreak of COVID-19. Emergency- and disaster-preparedness was an important issue and a global problem. Most hospitals could not maintain their routine work for a week due to the disaster-related resource shortage. A previous review highlighted the challenge of the emergency ordering of standardized PPE supply. The hospital invested greater efforts to establish an emergency management system based on the anticipated hazard. However, the unpredictable epidemic rendered the interim PPE preparedness impossible, especially for less-used PPE, protective clothing, and N95 respirators in daily work. It might be more practical to prepare a flexible hospital contingency plan than abundant PPE preparedness. In conclusion, the hospital emergency management plan of West China Hospital could alleviate the ED workload, protect health care personnel, and control the cross-infection during the COVID-19 epidemic.

Publication Type

Correspondence.

<340>

Accession Number

20203249591

Author

Manish Kumar; Kaling Taki; Rohit Gahlot; Ayushi Sharma; Kiran Dhangar

Title

A chronicle of SARS-COV-2: part-I - Epidemiology, diagnosis, prognosis, transmission and treatment.

Source

Science of the Total Environment; 2020. 734many ref.

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Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In order to benefit the public, community workers and scientific community, we hereby present a chronicle of SARS-CoV-2 that leads to the unseen precedent of social distancing and lockdown owing to coronavirus disease (COVID-19). Information on this life-threatening pandemic of COVID-19 is sparse and discrete; and the urgency is such that the dissemination of information is increasing with numerous daily publications on the topic. Therefore, we developed a comprehensive review on various aspects of SARS-CoV-2 and COVID-19. We scientifically compiled published research, news, and reports from various sources to comprehend and summarize the information and findings on Coronaviruses. The review explicitly covers the aspects like genome and pedigree of SARS-CoV-2; epidemiology, prognosis, pathogenesis, symptoms and diagnosis of COVID-19 in order to catalog the right information on transmission route, and influence of environmental factors on virus transmissions, for the robust understanding of right strategical steps for proper COVID-19 management. We have explicitly highlighted several useful information and facts like: (i) No established relationship between progression of SARS-CoV-2 with temperature, humidity and/or both, (ii) The underlying mechanism of SARS-CoV-2 is not fully understood, (iii) Respiratory droplet size determines drop and airborne-based transmission, (iv) Prognosis of COVID-19 can be done by its effects on various body organs, (v) Infection can be stopped by restricting the binding of S protein and AE2, (vi) Hydroxychloroquine is believed to be better than chloroquine for COVID-19, (vii) Ivermectin with Vero-hSLAM cells is able to reduce infection by ~5000 time within 2 days, and (viii) Nafamostat mesylate can inhibit SARS-CoV-2 S protein-initiated membrane fusion. We have also suggested future research perspectives, challenges and scope.

Publication Type

Journal article.

<341>

Accession Number

20203247607



Author

McKague, K.

Title

South Sudanese refugees in Uganda face overwhelming odds against COVID-19. (Special Issue: Coronavirus pandemic.)

Source

South Sudan Medical Journal; 2020. 13(2):57-59. 12 ref.

Publisher

South Sudan Doctors' Association

Location of Publisher

Juba

Country of Publication

South Sudan

Abstract

The objective of the article was to outline the measures taken by South Sudan's refugees to combat COVID-19. Some of it are: training village health team community health workers in understanding COVID-19 and recruiting them to educate refugees and promote hand washing, training village health team workers to educate refugees on the importance of physical distancing including limiting the number of people who meet together at any one time, and testing refugees to identify asymptomatic people who already have the disease with a view to isolating these people to prevent further spread.

Publication Type

Journal article.

<342>

Accession Number

20203247603

Author

Hakim, E.

Title

Preventing the spread of COVID-19 in South Sudan. (Special Issue: Coronavirus pandemic.)

Source

South Sudan Medical Journal; 2020. 13(2):40-43.

Publisher

South Sudan Doctors' Association

Location of Publisher

Juba

Country of Publication

South Sudan

Abstract

The objective of the article was to outline measures and guidelines to prevent the spread and transmission of COVID-19. Some of the key messages to protect households from COVID-19 are: wash your hands frequently, avoid touching your eyes, nose and mouth with unwashed hands, cover your mouth and nose if you cough or sneeze, avoid close contact with people outside your household, wear a mask in public if needed, take extra care of vulnerable or sick people in your households, continue to seek medical care for serious health conditions, and continue to take children for immunizations, continue to take routine medications, and to follow health education advice, and always stay informed and follow advice given by your healthcare provider.

Publication Type

Journal article.

<343>

Accession Number

20203247601

Author

Kenyi, E. E.

Title

COVID-19: what's in a name? (Special Issue: Coronavirus pandemic.)

Source

South Sudan Medical Journal; 2020. 13(2):35-73. 4 ref.

Publisher

South Sudan Doctors' Association

Location of Publisher

Juba

Country of Publication

South Sudan

Abstract

This special issue includes 16 articles focusing on COVID-19 case management; preventing the spread of COVID-19 in South Sudan; comparing the American and South Korea testing approaches for controlling the spread of COVID-19; COVID-19 and infections prevention and control in health facilities; communication to children about the COVID-19 pandemic; infant and young child feeding recommendations when COVID-19 is suspected or confirmed; tracking COVID-19 and flattening the curve; examples of online courses and training materials on COVID-19; and COVID-19 resources from Africa and beyond.

Publication Type

Journal issue.

<344>

Accession Number

20203257094

Author

Tigerstrom, B. von; Wilson, K.

Title

COVID-19 travel restrictions and the International health regulations (2005).

Source

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

The objective of the article was to discuss the travel regulations amidst the COVID-19 pandemic. Concerns that have been raised about states violating the International Health Regulations (2005) by imposing travel restrictions are valid, and some states have not complied with their obligations under those Regulations. Given the unprecedented situation and uncertainty about the best course of action, we should not assume that all travel restrictions violate international law, even though they were not recommended by the WHO, but some travel restrictions are more likely to be justified than others, depending on a number of factors, including how they are designed and local capacity to implement less restrictive measures. The WHO still has an important role to play in providing guidance to states as they modify or lift travel restrictions and in order for the international framework to be more effective, the WHO should have more flexibility to make early travel recommendations and develop protocols to facilitate the reopening of borders.

Publication Type

Journal article.

<345>

Accession Number

20203257074

Author

Fang DongPing; Pan ShengJie; Li ZaiShang; Yuan Ting; Jiang BenRan; Gan Di; Sheng Bai; Han Jing; Wang Tao; Liu ZhongMin

Title

Large-scale public venues as medical emergency sites in disasters: lessons from COVID-19 and the use of Fangcang shelter hospitals in Wuhan, China.

Source

BMJ Global Health; 2020. 5(6)15 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Since the COVID-19 outbreak, Wuhan has adopted three methods of admitting patients for treatment: designated hospitals, newly built temporary hospitals and Fangcang shelter hospitals. It has been proven that converting large-scale public venues such as stadiums and exhibition centres into Fangcang shelter hospitals, which serve as hospitals for isolation, treatment and disease monitoring of patients with mild symptoms, is the most effective way to control virus transmission and reduce mortality. This paper presents some experiences learnt from treating COVID-19 in Wuhan, the first city to report the outbreak and which suffered from a shortage of emergency supplies, heavy workload among staff and a shortage of hospital beds during the early stages of the pandemic. The experiences include location, accessibility, spacious outdoor area, spacious indoor space, power supply, architectural layout design and partition isolation, ventilation, sewage, and problems in the construction and management of Fangcang shelter hospitals. During the COVID-19 pandemic, traditional approaches to disaster preparedness have demonstrated intrinsic problems, such as poor economic performance, inefficiency and lack of flexibility. Converting large-scale public venues into Fangcang shelter hospitals is an important means to rapidly improve the function of the city's healthcare system during a pandemic. This valuable experience in Wuhan will help other countries in their battle against the current COVID-19 pandemic and will also contribute to disaster preparedness and mitigation in the future.

Publication Type

Journal article.

<346>

Accession Number

20203257070

Author

Soumyadeep Bhaumik; Sandeep Moola; Jyoti Tyagi; Devaki Nambiar; Misimi Kakoti

Title

Community health workers for pandemic response: a rapid evidence synthesis.

Source

BMJ Global Health; 2020. 5(6)60 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Introduction: Coronavirus disease (COVID-19), affects 213 countries or territories globally. We received a request from National Health Systems Resource Centre, a public agency in India, to conduct rapid evidence synthesis (RES) on community health workers (CHWs) for COVID-19 prevention and control in 3 days. Methods: We searched PubMed, websites of ministries (n=3), public agencies (n=6), multilateral institutions (n=3), COVID-19 resource aggregators (n=5) and preprints (n=1) (without language restrictions) for articles on CHWs in pandemics. Two reviewers screened the records independently with a third reviewer resolving disagreements. One reviewer extracted data with another reviewer cross-checking it. A framework on CHW performance in primary healthcare not specific to pandemic was used to guide data extraction and narrative analysis. Results: We retrieved 211 records and finally included 36 articles. Most of the evidence was from low-and middle-income countries with well-established CHW programmes. Evidence from CHW programmes initiated during pandemics and for CHW involvement in pandemic response in high-income countries was scant. CHW roles and tasks change substantially during pandemics. Clear guidance, training for changed roles and definition of what constitutes essential activities (ie, those that must to be sustained) is required. Most common additional activities during pandemics were community awareness, engagement and sensitisation (including for countering stigma) and contact tracing. CHWs were reported to be involved in all aspects of contact tracing - this was reported to affect routine service delivery. CHWs have often been stigmatised or been socially ostracised during pandemics. Providing PPE, housing allowance, equal training opportunities, transportation allowance, improving salaries (paid on time and for a broad range of services) and awards in high-profile public events contributed to better recruitment and retention. We also created inventories of resources with guiding notes on guidelines for health workers (n=24), self-isolation in the community (n=10) and information, education and counselling materials on COVID-19 (n=16).

Conclusions: CHWs play a critical role in pandemics. It is important to ensure role clarity, training, supportive supervision, as well as their work satisfaction, health and well-being. More implementation research on CHWs in pandemics is required.

Publication Type

Journal article.

<347>

Accession Number

20203257067

Author

Mullen, L.; Potter, C.; Gostin, L. O.; Cicero, A.; Nuzzo, J. B.

Title

An analysis of international health regulations emergency committees and public health emergency of international concern designations.

Source

BMJ Global Health; 2020. 5(6)49 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

Introduction: Nine events have been assessed for potential declaration of a Public Health Emergency of International Concern (PHEIC). A PHEIC is defined as an extraordinary event that constitutes a public health risk to other states through international spread and requires a coordinated international response. The WHO Director-General convenes Emergency Committees (ECs) to provide their advice on whether an event constitutes a PHEIC. The EC rationales have been criticised for being non-transparent and contradictory to the International Health Regulations (IHR). This first comprehensive analysis of EC

rationale provides recommendations to increase clarity of EC decisions which will strengthen the IHR and WHO's legitimacy in future outbreaks. Methods: 66 EC statements were reviewed from nine public health outbreaks of influenza A, Middle East respiratory syndrome coronavirus, polio, Ebola virus disease, Zika, yellow fever and coronavirus disease-2019. Statements were analysed to determine which of the three IHR criteria were noted as contributing towards the EC's justification on whether to declare a PHEIC and what language was used to explain the decision. Results :Interpretation of the criteria were often vague and applied inconsistently. ECs often failed to describe and justify which criteria had been satisfied. Discussion: Guidelines must be developed for the standardised interpretation of IHR core criteria. The ECs must clearly identify and justify which criteria have contributed to their rationale for or against PHEIC declaration. Conclusion: Striving for more consistency and transparency in EC justifications would benefit future deliberations and provide more understanding and support for the process.

Publication Type

Journal article.

<348>

Accession Number

20203252048

Author

Abbott, T. R.; Dhamdhere, G.; Liu, Y.; Lin, X.; Goudy, L.; Zeng LeiPing; Chemparathy, A.; Chmura, S.; Heaton, N. S.; Debs, R.; Pande, T.; Endy, D.; Russa, M. F. Ia; Lewis, D. B.; Qi, L. S.

Title

Development of CRISPR as an antiviral strategy to combat SARS-CoV-2 and influenza.

Source

Cell (Cambridge); 2020. 181(4):865-876.e12. many ref.

Publisher

Cell Press

Location of Publisher

Cambridge

Country of Publication



USA

## Abstract

The coronavirus disease 2019 (COVID-19) pandemic, caused by the SARS-CoV-2 virus, has highlighted the need for antiviral approaches that can target emerging viruses with no effective vaccines or pharmaceuticals. Here, we demonstrate a CRISPR-Cas13-based strategy, PAC-MAN (prophylactic antiviral CRISPR in human cells), for viral inhibition that can effectively degrade RNA from SARS-CoV-2 sequences and live influenza A virus (IAV) in human lung epithelial cells. We designed and screened CRISPR RNAs (crRNAs) targeting conserved viral regions and identified functional crRNAs targeting SARS-CoV-2. This approach effectively reduced H1N1 IAV load in respiratory epithelial cells. Our bioinformatic analysis showed that a group of only six crRNAs can target more than 90% of all coronaviruses. With the development of a safe and effective system for respiratory tract delivery, PAC-MAN has the potential to become an important pan-coronavirus inhibition strategy.

## Publication Type

Journal article.

<349>

## Accession Number

20203256336

## Author

Aarati Shah; Aacharya, R. P.

## Title

Combating COVID-19 pandemic in Nepal: ethical challenges in an outbreak.

## Source

JNMA, Journal of the Nepal Medical Association; 2020. 58(224):276-279. 21 ref.

## Publisher

Nepal Medical Association

## Location of Publisher

Kathmandu

## Country of Publication

Nepal

## Abstract

Pandemic outbreak of COVID-19 is the largest of its kind of this century. All countries throughout the globe are trying their best to contain the disease and eliminate at the earliest. Efforts are continuing to improve the outcome of the infection in terms of minimizing the morbidity and mortality. As a public health strategy every state has the responsibility of protecting the health of the community and such measures includes the preventive measures like social distancing or even lockdown of the state as a whole restricting the movement of the people, diagnostic measures like testing the suspects, contact tracing and isolation of the patients. Treatment of the infected requires decisions in resource constraint situation particularly ICU beds and ventilators. In the meantime, protecting doctors, nurses, other health workers as well as frontline workers need personal protective equipment (PPE) which is a scarce commodity. While doing so there might be a compromise in the individual autonomy, privacy, confidentiality, and social justice for the beneficence for the larger community. This is an attempt to explore the ethical quandaries in relation to combating COVID-19 in Nepal by relating the issues with the principles of biomedical ethics.

## Publication Type

Journal article.

<350>

## Accession Number

20203256329

## Author

Shrestha, G. S.; Paneru, H. R.; Acharya, S. P.; Shrestha, S. K.; Maheshraj Sigdel; Sanjeeb Tiwari; Yadav, B. K.; Badri Rijal; Lochan Karki; Yogesh Neupane; Narmaya Thapa; Sanjay Lakhey

## Title

Preparedness for coronavirus disease in hospitals of Nepal: A nation-wide survey.

## Source

JNMA, Journal of the Nepal Medical Association; 2020. 58(224):248-251. 8 ref.

## Publisher

Nepal Medical Association

Location of Publisher

Kathmandu

Country of Publication

Nepal

Abstract

Introduction: Coronavirus disease (COVID-19) pandemic has affected large number of people globally and has continued to spread. Preparedness of individual nations and the hospitals is important to effectively deal with the surge of cases. We aimed to obtain nation wide data from Nepal, about hospital preparedness for COVID-19. Methods: Online questionnaire was prepared in accordance with the Center for Disease Control recommendations to assess preparedness of hospitals for COVID-19. The questionnaire was circulated to the over 800 doctors across the nation, who are the life members of six medical societies. Results: We obtained 131 completed responses from all seven provinces. Majority of respondents had anaesthesiology as the primary specialty. Only 52 (39.7%) participants mentioned that their hospital had policy to receive suspected or proven cases with COVID-19. Presence of isolation ward was mentioned by 83 (63.4%) respondents, with only 9 (6.9%) mentioning the presence of airborne isolation. Supply of personal protective equipment (PPE) was inadequate as per 124 (94.7%) respondents. Critical care services for COVID-19 patients were possible only in hospitals of 42 (32.1%) respondents. RT-polymerase chain reaction could be performed only in the hospital of 6 (4.6%) respondents. Conclusions: It is apparent that most of the hospitals are not well prepared for management of patients with COVID-19. Resource allocation and policy making should be aimed to enhance national preparedness for the pandemic.

Publication Type

Journal article.

<351>

Accession Number

20203256300

Author

Mandeep Guragai

Title

Nepalese medical students in the COVID-19 pandemic: ways forward.

Source

JNMA, Journal of the Nepal Medical Association; 2020. 58(225):352-354. 7 ref.

Publisher

Nepal Medical Association

Location of Publisher

Kathmandu

Country of Publication

Nepal

Abstract

The coronavirus disease 2019 has not hit Nepal as hard as it has the rest of the world (as of 4th April 2020). Countries are reporting a saturation in healthcare facilities and facing a rise in demand for human resources for health. It is difficult to predict the extent of the disease transmission in Nepal in the absence of epidemiologic and statistical analysis in our context. But based on calculations made by epidemiologists in other countries, there seems to be a significant possibility of an outbreak in our communities too. Medical students can be a valuable human resource in a variety of ways to aid in the country's response to a possible outbreak. However, their involvement in the pandemic comes with its own challenges. Thorough planning and preparation must be done before allowing medical students to take part in the battle against the pandemic.

Publication Type

Journal article.

<352>

Accession Number

20203250152

Author

Arun Kumar

Title

Impact of covid-19 and what needs to be done.

Source

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Tackling the Covid-19 outbreak will require political will and decisive actions from the government in terms of ramping up the healthcare infrastructure, ensuring public distribution of essentials to fulfil basic needs, and income transfers to the poor, among others. The government should not constrain such expenditures in view of maintaining the permissible limit of fiscal deficit. A higher fiscal deficit may not be inflationary now, since demand is drastically down.

Publication Type

Journal article.

<353>

Accession Number

20203250143

Author

Hart, O. E.; Halden, R. U.

Title

Computational analysis of SARS-CoV-2/COVID-19 surveillance by wastewater-based epidemiology locally and globally: feasibility, economy, opportunities and challenges.

Source

Science of the Total Environment; 2020. 730many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

With the economic and practical limits of medical screening for SARS-CoV-2/COVID-19 coming sharply into focus worldwide, scientists are turning now to wastewater-based epidemiology (WBE) as a potential tool for assessing and managing the pandemic. We employed computational analysis and modeling to examine the feasibility, economy, opportunities and challenges of enumerating active coronavirus infections locally and globally using WBE. Depending on local conditions, detection in community wastewater of one symptomatic/asymptomatic infected case per 100 to 2,000,000 non-infected people is theoretically feasible, with some practical successes now being reported from around the world. Computer simulations for past, present and emerging epidemic hotspots (e.g., Wuhan, Milan, Madrid, New York City, Teheran, Seattle, Detroit and New Orleans) identified temperature, average in-sewer travel time and per-capita water use as key variables. WBE surveillance of populations is shown to be orders of magnitude cheaper and faster than clinical screening, yet cannot fully replace it. Cost savings worldwide for one-time national surveillance campaigns are estimated to be in the million to billion US dollar range (US\$), depending on a nation's population size and number of testing rounds conducted. For resource poor regions and nations, WBE may represent the only viable means of effective surveillance. Important limitations of WBE rest with its inability to identify individuals and to pinpoint their specific locations. Not compensating for temperature effects renders WBE data vulnerable to severe under-/over-estimation of infected cases. Effective surveillance may be envisioned as a two-step process in which WBE serves to identify and enumerate infected cases, where after clinical testing then serves to identify infected individuals in WBE-revealed hotspots. Data provided here demonstrate this approach to save money, be broadly applicable worldwide, and potentially aid in precision management of the pandemic, thereby helping to accelerate the global economic recovery that billions of people rely upon for their livelihoods.

Publication Type

Journal article.

<354>

Accession Number

20203250136

## Author

Requia, W. J.; Kondo, E. K.; Adams, M. D.; Gold, D. R.; Struchiner, C. J.

## Title

Risk of the Brazilian health care system over 5572 municipalities to exceed health care capacity due to the 2019 novel coronavirus (COVID-19).

## Source

Science of the Total Environment; 2020. 730many ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

The spread of the 2019 novel coronavirus (COVID-19) has challenged governments to develop public policies to reduce the load of the COVID-19 on health care systems, which is commonly referred to as "flattening the curve". This study aims to address this issue by proposing a spatial multicriteria approach to estimate the risk of the Brazilian health care system, by municipality, to exceed the health care capacity because of an influx of patients infected with the COVID-19. We estimated this risk for 5572 municipalities in Brazil using a combination of a multicriteria decision-making approach with spatial analysis to estimate the exceedance risk, and then, we examined the risk variation by designing 5 control intervention scenarios (3 scenarios representing reduction on social contacts, and 2 scenarios representing investment on health care system). For the baseline scenario using an average infection rate across Brazil, we estimated a mean Hospital Bed Capacity (HBC) value of -16.73, indicating that, on average, the Brazilian municipalities will have a deficit of approximately 17 beds. This deficit is projected to occur in 3338 municipalities with the north and northeast regions being at the greatest risk of exceeding health care capacity due to the COVID-19. The intervention scenarios indicate across all of Brazil that they could address the bed shortage, with an average of available beds between 23 and 32. However, when we consider the shortages at a municipal scale, bed exceedances still occur for at least 2119 municipalities in the most effective intervention scenario. Our findings are essential to identify priority areas, to compare populations, and to provide options for government agencies to act. This study can be used to provide support for the creation of effective health public policies for national, regional, and local intervention.

## Publication Type

Journal article.

<355>

Accession Number

20203250108

Author

Nakada, L. Y. K.; Urban, R. C.

Title

COVID-19 pandemic: impacts on the air quality during the partial lockdown in Sao Paulo state, Brazil.

Source

Science of the Total Environment; 2020. 73013 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

In early March 2020, the World Health Organization declared the COVID-19 as a pandemic, and in late March 2020 partial lockdown was ordered by the Sao Paulo state government. The aim of this study was to assess impacts on air quality in Sao Paulo - Brazil, during the partial lockdown implemented to provide social distancing required due to the COVID-19 pandemic. We have analyzed data from four air quality stations in Sao Paulo, Brazil to assess air pollutant concentration variations during the partial lockdown. Data were compared to the five-year monthly mean and to the four-week before the partial lockdown. Overall, drastic reductions on NO (up to -77.3%), NO<sub>2</sub> (up to -54.3%), and CO (up to -64.8%) concentrations were observed in the urban area during partial lockdown compared to the five-year monthly mean. By contrast, an increase of approximately 30% in ozone concentrations was observed in urban areas highly influenced by vehicle traffic, probably related to nitrogen monoxide decreases. Although the partial lockdown has contributed to a positive impact on air quality, it is important to take into account the negative impacts on social aspects, considering the deaths caused by COVID-19 and also the dramatic economic effects.

Publication Type



<356>

Accession Number

20203259933

Author

Pomarici, E.; Sardone, R.

Title

EU wine policy in the framework of the CAP: post-2020 challenges.

Source

Agricultural and Food Economics; 2020. 8(17):(16 June 2020). many ref.

Publisher

SpringerOpen

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

The EU Common Agricultural Policy (CAP), and with it the EU wine policy, is experiencing a reform process, started in 2018, in order to address ambitious environmental and social objectives, in conjunction with the goal of a competitive agricultural sector. Given the role of the EU in wine supply, the aim of this paper is to present the design, the rationale and the potential effect of the proposed reform with specific reference to wine sector. To better understand the forthcoming process, it is firstly presented how CAP and its wine policy evolved in terms of objectives and tools over time. The EU wine policy is a paradigmatic example of a combination between the horizontal measures, valid for all agricultural sectors, and vertical measures, peculiarly encompassing the whole wine supply chain. The reform proposal confirms, with some interesting modifications, the set of tools already operating in the sector; however, it calls for a planning of the implementation of the available tools for all products in a unitary frame represented by a national CAP Strategic Plan, applying a lean administrative procedure. In the hypothesis that the COVID-19 outbreak will not cause a radical change in the global agri-food

system, the proposed planning process should stimulate shared strategies. These are intended to effectively coordinate, according to the principle of complementarity, the implementation of available policy tools, in order to obtain a better use of resources and a more balanced achievement of all policy objectives.

#### Publication Type

Journal article.

<357>

#### Accession Number

20203256844

#### Author

Brauer, M.; Zhao, J. T.; Bennitt, F. B.; Stanaway, J. D.

#### Title

Global access to handwashing: implications for COVID-19 control in low-income countries.

#### Source

Environmental Health Perspectives; 2020. 128(5)21 ref.

#### Publisher

Public Health Service, U.S. Department of Health and Human Services

#### Location of Publisher

Durham

#### Country of Publication

USA

#### Abstract

Background: Low-income countries have reduced health care system capacity and are therefore at risk of substantially higher COVID-19 case fatality rates than those currently seen in high-income countries. Handwashing is a key component of guidance to reduce transmission of the SARS-CoV2 virus, responsible for the COVID-19 pandemic. Prior systematic reviews have indicated the effectiveness of handwashing to reduce transmission of respiratory viruses. In low-income countries, reduction of transmission is of paramount importance, but social distancing is challenged by high population

densities and access to handwashing facilities with soap and water is limited. Objectives: Our objective was to estimate global access to handwashing with soap and water to inform use of handwashing in the prevention of COVID-19 transmission. Methods: We utilized observational surveys and spatiotemporal Gaussian process regression modeling in the context of the Global Burden of Diseases, Injuries, and Risk Factors Study to estimate access to a handwashing station with available soap and water for 1,062 locations from 1990 to 2019. RESULTS: Despite overall improvements from 1990 {33.6% [95% uncertainty interval (UI): 31.5, 35.6] without access} to 2019, globally in 2019, 2.02 (95% UI: 1.91, 2.14) billion people, 26.1% (95% UI: 24.7, 27.7) of the global population, lacked access to handwashing with available soap and water. More than 50% of the population in sub-Saharan Africa and Oceania were without access to handwashing in 2019, and in eight countries, 50 million or more persons lacked access. Discussion: For populations without handwashing access, immediate improvements in access or alternative strategies are urgently needed, and disparities in handwashing access should be incorporated into COVID-19 forecasting models when applied to low-income countries.

#### Publication Type

Journal article.

<358>

#### Accession Number

20203253726

#### Author

Yin Li; Mou HuaMing; Shao Jiang; Zhu Ye; Pang XiaoHua; Yang JianJun; Zhang JianMing; Shi Wei; Yu ShiMei; Wang HaiLong

#### Title

Correlation between heart fatty acid binding protein and severe COVID-19: A case-control study.

#### Source

PLoS ONE; 2020. 15(4)22 ref.

#### Publisher

Public Library of Sciences (PLoS)

#### Location of Publisher

San Francisco

## Country of Publication

USA

## Abstract

**Background:** Heart-fatty acid binding protein (HFABP) has been recognized as a highly heart-specific marker. However, it is currently unknown that its HFABP is also closely related to the severity of COVID-19. **Methods:** We retrospectively screened 46 patients who met our inclusion criteria within 4 weeks. They were tested for HFABP after the diagnosis of COVID-19, and monitored for HFABP during their hospital stay. We tracked the patients during their hospital stay to determine if they had severe COVID-19 or mild-to-severe transition features. We calculated the chi-square test values found for HFABP to predict the correlation between HFABP levels and the severity of the COVID-19. **Results:** Of these 46 cases, 16 cases with confirmed COVID-19 were tested for HFABP > 7 ng/mL upon admission; among them, 14 cases were diagnosed with severe COVID-19 within the hospitalization. The Odds ratio of the measured HFABP elevation was 6.81(95% confidence interval [CI] 5.23-8.40), and 3 patients with severe COVID-19 progressed in 5 patients with mild HFABP > 7 ng/mL. **Conclusion:** These data indicate that the elevation of HFABP is closely related to the severity of COVID-19 in the patients, and the elevated HFABP may cause rapid development of patients with mild COVID-19 into severe COVID-19. But serum HFABP negative maybe make patients with mild COVID-19 safer, the current data show no effect on the all-cause mortality.

## Publication Type

Journal article.

<359>

## Accession Number

20203250601

## Author

Tobías, A.; Carnerero, C.; Reche, C.; Massagué, J.; Via, M.; Minguillón, M. C.; Alastuey, A.; Querol, X.

## Title

Changes in air quality during the lockdown in Barcelona (Spain) one month into the SARS-CoV-2 epidemic.

## Source

Science of the Total Environment; 2020. 72612 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Lockdown measures came into force in Spain from March 14th, two weeks after the start of the SARS-CoV-2 epidemic, to reduce the epidemic curve. Our study aims to describe changes in air pollution levels during the lockdown measures in the city of Barcelona (NE Spain), by studying the time evolution of atmospheric pollutants recorded at the urban background and traffic air quality monitoring stations. After two weeks of lockdown, urban air pollution markedly decreased but with substantial differences among pollutants. The most significant reduction was estimated for BC and NO<sub>2</sub> (-45 to -51%), pollutants mainly related to traffic emissions. A lower reduction was observed for PM<sub>10</sub> (-28 to -31.0%). By contrast, O<sub>3</sub> levels increased (+33 to +57% of the 8 h daily maxima), probably due to lower titration of O<sub>3</sub> by NO and the decrease of NO<sub>x</sub> in a VOC-limited environment. Relevant differences in the meteorology of these two periods were also evidenced. The low reduction for PM<sub>10</sub> is probably related to a significant regional contribution and the prevailing secondary origin of fine aerosols, but an in-depth evaluation has to be carried out to interpret this lower decrease. There is no defined trend for the low SO<sub>2</sub> levels, probably due to the preferential reduction in emissions from the least polluting ships. A reduction of most pollutants to minimal concentrations are expected for the forthcoming weeks because of the more restrictive actions implemented for a total lockdown, which entered into force on March 30th. There are still open questions on why PM<sub>10</sub> levels were much less reduced than BC and NO<sub>2</sub> and on what is the proportion of the abatement of pollution directly related to the lockdown, without meteorological interferences.

Publication Type

Journal article.

<360>

Accession Number

20203247909

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Author

Ravi Duggal

Title

Mumbai's struggles with public health crises.

Source

Economic and Political Weekly; 2020. 55(21)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The economic catastrophe precipitated by the COVID-19 pandemic and the response of the dismal public health system has actually led to the heightening of the public health crisis. If the migration of workers from cities is not stopped through appropriate economic support measures, the public health crises will worsen because most migrants are returning to states that have very poor healthcare systems with limited capacities to deal with such crises. This pandemic also offers a political opportunity for governments to focus on strengthening the primary healthcare and public health systems through bold experimentation and strategies.

Publication Type

Journal article.

<361>

Accession Number

20203247908

Author

Lele, U.; Bansal, S.; Meenakshi, J. V.

Title

Health and nutrition of India's labour force and COVID-19 challenges.

Source

Economic and Political Weekly; 2020. 55(21)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Can the "post-COVID-19 normal" emerge better for India's food supply and demand management, with a clear goal of zero hunger? Presently contributing one-third of the global undernutrition burden, a daunting challenge that the country must overcome now is of resuming broader based economic growth with a healthy labour force. Given this, India needs a data-driven exit and post-exit strategy from the COVID-19 lockdown that will not only mitigate the immediate food crisis faced by millions of poor households, but also reduce the long-term structural bottlenecks that limit poor households' access to food.

Publication Type

Journal article.

<362>

Accession Number

20203259276

Author

Silva Filho, O. J. da; Gomes J&uacute;nior, N. N.

Title

The future at the kitchen table: COVID-19 and the food supply. (Special Section: COVID-19 - public health contributions.)

Source

Cadernos de SaAde PAblica; 2020. 36(5)11 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The objective of the article was to examine how the food supply was affected by the ongoing COVID-19 pandemic. Crises such as the current pandemic also reveal the exhaustion of neoliberalism and of the current hegemonic model in the Brazilian food system for maintaining life and nutrition, placing in check food-as-merchandise (increasingly expensive, globalized, and ultra-processed). These are structural problems that will only be solved by building a food system that prioritizes the dimensions of food and nutritional sovereignty and security, reinforcing traditional and new forms of food supply and produce marketing and promoting food reeducation in all the dimensions of human nutrition.

Publication Type

Journal article.

<363>

Accession Number

20203259267

Author

Santos, J. P. C. dos; Siqueira, A. S. P.; Pra&ccedil;a, H. L. F.; Albuquerque, H. G.

Title

Vulnerability to severe forms of COVID-19: an intra-municipal analysis in the city of Rio de Janeiro, Brazil.



Source

Cadernos de SaAde PAblica; 2020. 36(5)19 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

Given the characteristics of the COVID-19 pandemic and the limited tools for orienting interventions in surveillance, control, and clinical care, the current article aims to identify areas with greater vulnerability to severe cases of the disease in Rio de Janeiro, Brazil, a city characterized by huge social and spatial heterogeneity. In order to identify these areas, the authors prepared an index of vulnerability to severe cases of COVID-19 based on the construction, weighting, and integration of three levels of information: mean number of residents per household and density of persons 60 years or older (both per census tract) and neighborhood tuberculosis incidence rate in the year 2018. The data on residents per household and density of persons 60 years or older were obtained from the 2010 Population Census, and data on tuberculosis incidence were taken from the Brazilian Information System for Notifiable Diseases (SINAN). Weighting of the indicators comprising the index used analytic hierarchy process (AHP), and the levels of information were integrated via weighted linear combination with map algebra. Spatialization of the index of vulnerability to severe COVID-19 in the city of Rio de Janeiro reveals the existence of more vulnerable areas in different parts of the city's territory, reflecting its urban complexity. The areas with greatest vulnerability are located in the North and West Zones of the city and in poor neighborhoods nested within upper-income parts of the South and West Zones. Understanding these conditions of vulnerability can facilitate the development of strategies to monitor the evolution of COVID-19 and orient measures for prevention and health promotion.

Publication Type

Journal article.

<364>

Accession Number

20203259260

Author

Moreira, R. da S.

Title

COVID-19: intensive care units, mechanical ventilators, and latent mortality profiles associated with case-fatality in Brazil.

Source

Cadernos de SaAde PAblica; 2020. 36(5)31 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

In response to the accelerated increase in the number of COVID-19 cases, countries must increase their supply of beds in intensive care units (ICUs). Respiratory diseases, neoplasms, cardiopathies and hypertension, and diabetes are associated with higher COVID-19 case-fatality. The study aimed to identify the regions of Brazil with higher specific mortality rates from these comorbidities and the regions with the greatest shortage of ICU beds and mechanical ventilators. A cross-sectional ecological study was performed in which the units of analysis were the country's Health Regions. Data were obtained from Brazilian Health Informatics Department - DATASUS (National Registry of Healthcare Establishments - 2019, Mortality Information Systems - 2017, and Population Projections - 2017). We calculated the disease group-specific mortality rates for hypertension, neoplasms, diabetes, cardiac diseases, respiratory diseases and the rates of total ICU beds, private ICU beds, ICU beds in the Brazilian Unified National Health System (SUS), and ventilators in the SUS, per 100,000 inhabitants. The mortality profile was determined by latent profiles analysis, and the cluster analysis of ICU beds and ventilators used the spatial scan method. Kernel maps were constructed for the data's visualization. Level of significance was set at 5%. Four latent mortality profiles were observed. The Health Regions with the highest mean mortality rates were located in regions with shortages of ICU beds and ventilators, especially in parts of the Northeast, Southeast, and South of Brazil. The spatial localization of regions with both the highest mortality and shortages of ICU beds/ventilators requires attention by policymakers and public planners to deal efficiently and fairly with the COVID-19 epidemic in Brazil.

Publication Type

Journal article.

<365>

Accession Number

20203259252

Author

Caetano, R.; Silva, A. B.; Guedes, A. C. C. M.; Paiva, C. C. N. de; Ribeiro, G. da R.; Santos, D. L.; Silva, R. M. da

Title

Challenges and opportunities for telehealth during the COVID-19 pandemic: ideas on spaces and initiatives in the Brazilian context.

Source

Cadernos de SaAde PAblica; 2020. 36(5)58 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

COVID-19 has created enormous challenges for health systems worldwide, with the rapidly growing number of deaths and critical patients with pneumonia requiring ventilatory support. Alternative methods to control the spread of the disease such as social isolation, extreme quarantine measures, and contact tracing have been used around the world. However, these measures may not be totally effective to fight COVID-19, in step with the necessary national preparations to meet the new patient care demands. A wide range of digital technologies can be used to enhance these public health strategies, and the pandemic has sparked increasing use of telehealth. This field has grown considerably in Brazil in recent years. Still, despite the intense proliferation of recommendations and rules, until the current pandemic the country still lacked a fully consolidated regulatory framework. The emergence of COVID-19 marks a key moment in the expansion of applications and use of telehealth for improving the health system's response to the current crisis. The article discusses telehealth's contribution to the fight against COVID-19 and the recent initiatives triggered in Brazil as opportunities for the consolidation of telemedicine and improvement of the Brazilian Unified National Health System.

The authors conclude that telehealth offers capabilities for remote screening, care and treatment, and assists monitoring, surveillance, detection, prevention, and mitigation of the impacts on healthcare indirectly related to COVID-19. The initiatives triggered in this process can reshape the future space of telemedicine in health services in the territory.

Publication Type

Journal article.

<366>

Accession Number

20203256171

Author

Metwally, A. M.; El-Sonbaty, M. M.; Abdellatif, G. A.; El-Etreby, L. A.; Elsayed, H.; Elsheshtawy, E.; Elsaeid, A.; Ibrahim, N. A.

Title

Common phobias among Egyptian primary schoolchildren: an emergency trigger for panic disorder due to corona pandemic. (Special Issue: Coronavirus disease (COVID-19).)

Source

Open Access Macedonian Journal of Medical Sciences; 2020. 8(T1):3-11. 54 ref.

Publisher

ID Design

Location of Publisher

Skopje

Country of Publication

Republic of Macedonia

Abstract

**BACKGROUND:** In the wake of the adverse situation we are currently facing globally due to the coronavirus pandemic outbreak, it is normal to feel stressed, confused, and scared but what is abnormal is to turn this to panic. Phobias are more pronounced than fears. They develop when a person has an exaggerated or unrealistic sense of danger that may be evolved to experience panic attacks. **AIM:** Our

objective was to identify the prevalence of most common phobias as well as panic disorder (PD) due to the coronavirus pandemic among Egyptian primary schoolchildren and their determinants. METHODS: A cross-sectional study was conducted among 2015 schoolchildren from 3 to 6 grades in three governorates of Egypt. Seven types of phobias were investigated: Agoraphobia, phobias from darkness, animal, untreatable illness (mainly coronavirus), insects, height, and social phobia. The child's self-reported PD symptoms were assessed using DSM-IV with psychiatric diagnoses. RESULTS: Almost two-thirds of the surveyed primary schoolchildren have phobias of the low score (<9) versus one-third who had high phobias score (61.% vs. 35%, respectively) with highly significant difference ( $p < 0.001$ ). The most prevalent phobias were from heights (66.5%) followed by darkness (60.0%). The important predictors of phobias were: Being a male child, living in an urban area, and studying at governmental school at fifth or sixth-grade residence. The prevalence of PD due to the corona epidemic is very high, it is reported by almost half of the surveyed primary schoolchildren. Fear of losing any of their family members, especially grandparents, was reported to be the highest PD symptom (97%). CONCLUSION AND RECOMMENDATION: Phobia from heights and darkness was the most common. The prevalence of PD due to the coronavirus epidemic is reported to be very high. Calming down children who might be experienced with a phobia that is triggering their PD is recommended.

#### Publication Type

Journal article.

<367>

#### Accession Number

20203257369

#### Author

Sivakorn, C.; Luvira, V.; Muangnoicharoen, S.; Piroonamornpun, P.; Ouppapong, T.; Mungaomklang, A.; Iamsirithaworn, S.

#### Title

Walking pneumonia in novel Coronavirus disease (Covid-19): mild symptoms with marked abnormalities on chest imaging.

#### Source

American Journal of Tropical Medicine and Hygiene; 2020. 102(5):940-942. 12 ref.

#### Publisher

American Society of Tropical Medicine and Hygiene

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Location of Publisher

Deerfield

Country of Publication

USA

Abstract

This case report underlines the appearance of a "walking pneumonia" in a novel coronavirus disease (COVID-19) patient, with evidence of progressive lung involvement on chest imaging studies. The patient traveled from Wuhan, Hubei, China, to Thailand in January 2020. One of her family members was diagnosed with COVID-19. She presented to the hospital because of her concern, but she was without fever or any respiratory symptoms. Three days earlier, her nasopharyngeal and throat swabs revealed a negative severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) test by real-time reverse transcriptase polymerase chain reaction (RT-PCR). Her initial chest radiography was abnormal, and her first sputum SARS-CoV-2 test yielded inconclusive results. A subsequent sputum test was positive for SARS-CoV-2. Diagnosis in this patient was facilitated by chest imaging and repeat viral testing. Thus, chest imaging studies might enhance capabilities for early diagnosis of COVID-19 pneumonia.

Publication Type

Journal article.

<368>

Accession Number

20203257365

Author

Maffioli, E. M.

Title

How is the world responding to the novel coronavirus disease (COVID-19) compared with the 2014 west African ebola epidemic? The importance of China as a player in the global economy.

Source

American Journal of Tropical Medicine and Hygiene; 2020. 102(5):924-925. 15 ref.

Publisher

American Society of Tropical Medicine and Hygiene

Location of Publisher

Deerfield

Country of Publication

USA

Abstract

This article describes similarities and differences in the response of governments and the international community to the current 2019 coronavirus disease (COVID-19) and the 2014 West African Ebola epidemic. It expresses the opinion that the speed and scale of the response to COVID-19 are affected by the important role that China plays in the global economy. By contrast, insufficient and less timely action was initially undertaken in West African countries during the 2014 Ebola epidemic. It concludes by stating why preparedness for and response to all disease outbreaks, also in countries of lower economic importance, should become a priority in the global health agenda.

Publication Type

Journal article.

<369>

Accession Number

20203254263

Author

Amoatey, P.; Omidvarborna, H.; Baawain, M. S.; Al-Mamun, A.

Title

Impact of building ventilation systems and habitual indoor incense burning on SARS-CoV-2 virus transmissions in Middle Eastern countries.

Source

Science of the Total Environment; 2020. 73331 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Majority of countries across the globe have employed improving building ventilation, quarantine, social distancing, and disinfections as a general measure of preventing SARS-CoV-2 virus transmissions. However, arid Middle Eastern countries with hot climate (elevated outdoor temperature and humidity levels) are experiencing a different situation. Unfortunately, these harsh ambient climatic conditions in Middle Eastern countries make it impossible for most buildings to utilize natural/mechanical ventilation systems. Besides, indoor air temperatures of most buildings are very low due to overconsumption of air conditioning, thereby, it can be a potential factor of virus spread in most residential homes and public buildings. Most importantly, habitual indoor burning of incense which is the major source of coarse (PM10; aerodynamic diameter <10 µm) and fine (PM2.5; aerodynamic diameter <2.5 µm) particulate matters (PM) could facilitate the transmission of SARS-CoV-2 virus droplets and particles in indoor environments. In fact, it increases the spread of the virus via inhalation in these countries, especially where the wearing of masks is not regulated in public, commercial and residential buildings. It is therefore highly recommended for the relevant public health agencies to critically assess the role of poor indoor environmental conditions including the burning of incense on virus transmissions, which may help to develop control measures for the future viral outbreak effectively.

Publication Type

Journal article.

<370>

Accession Number

20203252361

Author

Blanco-Melo, D.; Nilsson-Payant, B. E.; Liu WenChun; Uhl, S.; M&oslash;ller, R.; Jordan, T. X.; Oishi, K.; Panis, M.; Sachs, D.; Wang, T. T.; Schwartz, R. E.; Lim, J. K.; Albrecht, R. A.; Tenover, B. R.

Title

Imbalanced host response to SARS-CoV-2 drives development of COVID-19.



Source

Cell (Cambridge); 2020. 181(5):1036-1045.e9. 51 ref.

Publisher

Cell Press

Location of Publisher

Cambridge

Country of Publication

USA

Abstract

Viral pandemics, such as the one caused by SARS-CoV-2, pose an imminent threat to humanity. Because of its recent emergence, there is a paucity of information regarding viral behavior and host response following SARS-CoV-2 infection. Here we offer an in-depth analysis of the transcriptional response to SARS-CoV-2 compared with other respiratory viruses. Cell and animal models of SARS-CoV-2 infection, in addition to transcriptional and serum profiling of COVID-19 patients, consistently revealed a unique and inappropriate inflammatory response. This response is defined by low levels of type I and III interferons juxtaposed to elevated chemokines and high expression of IL-6. We propose that reduced innate antiviral defenses coupled with exuberant inflammatory cytokine production are the defining and driving features of COVID-19.

Publication Type

Journal article.

<371>

Accession Number

20203252323

Author

Abhishek; Vaibhav Bhamoriya; Puneet Gupta; Manu Kaushik; Avinash Kishore; Ritesh Kumar; Abhishek Sharma; Shilp Verma

Title

India's food system in the time of COVID-19.

Source

Economic and Political Weekly; 2020. 55(15)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

India's complete lockdown has caused unnecessary disruptions in the food supply chain, with the scarcity of labour making it even worse. A sharp decline in demand is imminent with the financial sector being in a freeze and incomes having shrunk for everyone, except for the small salaried class. Consumer sentiment and business outlook on recovery are bleak. While ensuring the free movement of essential goods and availability and safety of labour can mitigate the immediate disruptions in the supply chain, unclogging the financial sector and restoring optimism in the market will take time and heroic efforts from the government.

Publication Type

Journal article.

<372>

Accession Number

20203252317

Author

Kim YoungIl; Kim SeongGyu; Kim SeMi; Kim EunHa; Park SuJin; Yu KwangMin; Chang JaeHyung; Kim EunJi; Lee Seunghun; Casel MarkAnthonyB.; Um JihYe; Song MinSuk; Jeong HyeWon; Lai, van D.; Kim Yeonjae; Chin BumSik; Park JunSun; Chung KiHyun; Foo SuanSin; Poo Haryoung; Mo InPil; Lee OkJun; Webby, R. J.; Jung JaeU.; Choi YoungKi

Title

Infection and rapid transmission of SARS-CoV-2 in Ferrets.

Source

Cell Host & Microbe; 2020. 27(5):704-709.e2. 27 ref.

Publisher

Cell Press

Location of Publisher

Cambridge

Country of Publication

USA

Abstract

The outbreak of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged in China and rapidly spread worldwide. To prevent SARS-CoV-2 dissemination, understanding the in vivo characteristics of SARS-CoV-2 is a high priority. We report a ferret model of SARS-CoV-2 infection and transmission that recapitulates aspects of human disease. SARS-CoV-2-infected ferrets exhibit elevated body temperatures and virus replication. Although fatalities were not observed, SARS-CoV-2-infected ferrets shed virus in nasal washes, saliva, urine, and feces up to 8 days post-infection. At 2 days post-contact, SARS-CoV-2 was detected in all naive direct contact ferrets. Furthermore, a few naive indirect contact ferrets were positive for viral RNA, suggesting airborne transmission. Viral antigens were detected in nasal turbinate, trachea, lungs, and intestine with acute bronchiolitis present in infected lungs. Thus, ferrets represent an infection and transmission animal model of COVID-19 that may facilitate development of SARS-CoV-2 therapeutics and vaccines.

Publication Type

Journal article.

<373>

Accession Number

20203250461

Author

Biswaranjan Paital

Title

Nurture to nature via COVID-19, a self-regenerating environmental strategy of environment in global context.

Source

Science of the Total Environment; 2020. 729many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Coronavirus Disease (COVID-19) has become the largest pandemic that has affected 210 countries. Rolling data indicate that 257,3605 people are infected by the disease, from which 701,838 have recovered and 178,562 have died. No specific medicine or vaccine is available yet to control the disease, hence, social distancing via lockdown is widely adopted as the only preventive measure. Social distancing is observed at different level of strictness in different counties but it almost made the world to stands still. Although scientific articles on this largest social move are scanty, it resulted in benefiting the deteriorated environment to revive back. Many environmental indices such as lowering NO<sub>2</sub> and CO<sub>2</sub> emissions and reduction in particulate matters in air as a result of less human activities have led to clean air and pollution free water in many countries. Undoubtedly, the world was experiencing pollution in several countries due to mainly human activities including urbanization, industrialization, fossil fuel exhaustion etc. Under such situation a special (natural) a protective measure was awaited to fix environmental issues. Probably, the lockdown is one of the natural effects expected by nature via introduction of COVID-19. It is because, introduction of COVID-19 to nature was an outcome of mutation from two of its pre-existing forms, although, debate on it is still continuing. Viability of CoV-19 virus found to have a lot of correlation with aquatic and terrestrial environmental parameters such as pH, surface type, temperature etc. Air pollution is found to increase the risk of COVID-19 infection, therefore, use of mask and alcohols based standard sterilisers is strongly recommended. However, the self-revival rate of nature shall continue during post-lockdown period and a master plan must be adapted by national and international (mostly political) bodies to revive the Mother Nature completely.

Publication Type

Journal article.

<374>

Accession Number

20203250455

Author

Dantas, G.; Siciliano, B.; Fran&ccedil;a, B. B.; Silva, C. M. da; Arbilla, G.

Title

The impact of covid-19 partial lockdown on the air quality of the city of Rio de Janeiro, Brazil.

Source

Science of the Total Environment; 2020. 72931 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

he first COVID-19 case in Brazil was confirmed on February 25, 2020. On March 16, the state's governor declared public health emergency in the city of Rio de Janeiro and partial lockdown measures came into force a week later. The main goal of this work is to discuss the impact of the measures on the air quality of the city by comparing the particulate matter, carbon monoxide, nitrogen dioxide and ozone concentrations determined during the partial lockdown with values obtained in the same period of 2019 and also with the weeks prior to the virus outbreak. Concentrations varied with substantial differences among pollutants and also among the three studied monitoring stations. CO levels showed the most significant reductions (30.3-48.5%) since they were related to light-duty vehicular emissions. NO<sub>2</sub> also showed reductions while PM<sub>10</sub> levels were only reduced in the first lockdown week. In April, an increase in vehicular flux and movement of people was observed mainly as a consequence of the lack of consensus about the importance and need of social distancing and lockdown. Ozone concentrations increased probably due to the decrease in nitrogen oxides level. When comparing with the same period of 2019, NO<sub>2</sub> and CO median values were 24.1-32.9 and 37.0-43.6% lower. Meteorological interferences, mainly the transport of pollutants from the industrial areas might have also impacted the results.

Publication Type

Journal article.

<375>

Accession Number

20203250427

Author

Samsuri Abdullah; Amalina Abu Mansor; Nur Nazmi, L. M. N.; Wan Nurdiyana, W. M.; Ali Najah Ahmed; Marzuki Ismail; Zamzam Tuah, A. R.

Title

Air quality status during 2020 Malaysia Movement Control Order (MCO) due to 2019 novel coronavirus (2019-nCoV) pandemic.

Source

Science of the Total Environment; 2020. 72912 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

An outbreak of respiratory illness which is proven to be infected by a 2019 novel coronavirus (2019-nCoV) officially named as Coronavirus Disease 2019 (COVID-19) was first detected in Wuhan, China and has spread rapidly in other parts of China as well as other countries around the world, including Malaysia. The first case in Malaysia was identified on 25 January 2020 and the number of cases continue to rise since March 2020. Therefore, 2020 Malaysia Movement Control Order (MCO) was implemented with the aim to isolate the source of the COVID-19 outbreak. As a result, there were fewer number of motor vehicles on the road and the operation of industries was suspended, ergo reducing emissions of hazardous air pollutants in the atmosphere. We had acquired the Air Pollutant Index (API) data from the Department of Environment Malaysia on hourly basis before and during the MCO with the aim to track the changes of fine particulate matter (PM<sub>2.5</sub>) at 68 air quality monitoring stations. It was found that the PM<sub>2.5</sub> concentrations showed a high reduction of up to 58.4% during the MCO. Several red zone areas (>41 confirmed COVID-19 cases) had also reduced of up to 28.3% in the PM<sub>2.5</sub>

concentrations variation. The reduction did not solely depend on MCO, thus the researchers suggest a further study considering the influencing factors that need to be adhered to in the future.

Publication Type

Journal article.

<376>

Accession Number

20203250404

Author

Iqbal, N.; Fareed, Z.; Shahzad, F.; He Xin; Shahzad, U.; Lina, M.

Title

The nexus between COVID-19, temperature and exchange rate in Wuhan city: new findings from partial and multiple wavelet coherence.

Source

Science of the Total Environment; 2020. 72935 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This study attempts to document the nexus between weather, COVID-19 outbreak in Wuhan and the Chinese economy. We used daily average temperature (hourly data), daily new confirmed cases of COVID-19 in Wuhan, and RMB (Chinese currency) exchange rate to represent the weather, COVID-19 outbreak and the Chinese economy, respectively. The methodology of Wavelet Transform Coherence (WTC), Partial Wavelet Coherence (PWC) and Multiple Wavelet Coherence (MWC) is employed to analyze the daily data collected from 21st January 2020 to 31st March 2020. The results have revealed a significant coherence between the series at different time-frequency combinations. The overall results

suggest the insignificance of an increase in temperature to contain or slow down the new COVID-19 infections. The RMB exchange rate and the COVID-19 showed an out phase coherence at specific time-frequency spots suggesting a negative but limited impact of the COVID-19 outbreak in Wuhan on the Chinese export economy. Our results are contrary to many earlier studies which suggest a significant role of temperature in slowing down the COVID-19 spread. These results can have important policy implications for the containment of COVID-19 spread and macro-economic management with respect to changes in the weather.

Publication Type

Journal article.

<377>

Accession Number

20203254782

Author

Naveen Ramesh; Archana Siddaiah; Bobby Joseph

Title

Tackling corona virus disease 2019 (covid 19) in workplaces.

Source

Indian Journal of Occupational and Environmental Medicine; 2020. 24(1):16-18. 13 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Coronaviruses are zoonotic viruses and six species of Coronaviruses are known to cause human disease such as cause common cold, severe acute respiratory syndrome and the Middle East Respiratory Syndrome. In January 2020, scientists in Wuhan, China isolated a novel coronavirus (SARS-



CoV-2), responsible for an outbreak of unknown pneumonia that had not been previously reported among humans. This virus spreads from person to person, through respiratory droplets, close contact, and by touching surfaces or objects contaminated by the virus. The incubation period varies between 2 days and 14 days. Symptoms usually include fever, cough, difficulty in breathing, pneumonia, severe acute respiratory syndrome. Older age and co-morbid conditions increase the fatality. Any person with a history of travel to and from COVID-19 affected countries in the past 14 days or any person who has had close contact with a laboratory confirmed COVID-19 are suspect cases and needs evaluation. Currently no vaccine is available and treatment is mainly supportive. Measures at workplace should include- avoiding non-essential travel, identifying and isolating sick employees at the earliest, hand hygiene, respiratory hygiene, environmental hygiene and social distancing.

Publication Type

Journal article.

<378>

Accession Number

20203251690

Author

Yunus, A. P.; Masago, Y.; Hijioka, Y.

Title

Covid-19 and surface water quality: Improved lake water quality during the lockdown.

Source

Science of the Total Environment; 2020. 73140 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Human life comes to a standstill as many countries shut themselves off from the work due to the novel coronavirus disease pandemic (COVID-19) that hit the world severely in the first quarter of 2020. All types of industries, vehicle movement, and people's activity suddenly halted, perhaps for the first time in modern history. For a long time, it has been stated in various literature that the increased industrialization and anthropogenic activities in the last two decades polluted the atmosphere, hydrosphere, and biosphere. Since the industries and people's activities have been shut off for a month or more in many parts of the world, it is expected to show some improvement in the prevailing conditions in the aforementioned spheres of environment. Here, with the help of remote sensing images, this work quantitatively demonstrated the improvement in surface water quality in terms of suspended particulate matter (SPM) in the Vembanad Lake, the longest freshwater lake in India. The SPM estimated based on established turbidity algorithm from Landsat-8 OLI images showed that the SPM concentration during the lockdown period decreased by 15.9% on average (range: -10.3% to 36.4%, up to 8 mg/l decrease) compared with the pre-lockdown period. Time series analysis of satellite image collections (April 2013 - April 2020) showed that the SPM quantified for April 2020 is the lowest for 11 out of 20 zones of the Vembanad lake. When compared with preceding years, the percentage decrease in SPM for April 2020 is up to 34% from the previous minima.

#### Publication Type

Journal article.

<379>

#### Accession Number

20203254703

#### Author

Wang LeYi; Mitchell, P. K.; Calle, P. P.; Bartlett, S. L.; McAloose, D.; Killian, M. L.; Yuan FangFeng; Fang Ying; Goodman, L. B.; Fredrickson, R.; Elvinger, F.; Terio, K.; Franzen, K.; Stuber, T.; Diel, D. G.; Torchetti, M. K.

#### Title

Complete genome sequence of SARS-CoV-2 in a tiger from a U.S. zoological collection.

#### Source

Microbiology Resource Announcements; 2020. 9(22)5 ref.

#### Publisher

American Society for Microbiology (ASM)

Location of Publisher

Washington, D.C.

Country of Publication

USA

Abstract

This report describes the identification and characterization of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in a Malayan tiger in a U.S. zoo.

Publication Type

Journal article.

<380>

Accession Number

20203250914

Author

Indrajit Mandal; Swades Pal

Title

COVID-19 pandemic persuaded lockdown effects on environment over stone quarrying and crushing areas.

Source

Science of the Total Environment; 2020. 732many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Stone quarrying and crushing spits huge stone dust to the environment and causes threats to ecosystem components as well as human health. Imposing emergency lockdown to stop infection of COVID 19 virus on 24.03.2020 in India has created economic crisis but it has facilitated environment to restore its quality. Global scale study has already proved the qualitative improvement of air quality but its possible impact at regional level is not investigated yet. Middle catchment of Dwarka river basin of Eastern India is well known for stone quarrying and crushing and therefore the region is highly polluted. The present study has attempted to explore the impact of forced lockdown on environmental components like Particulate matter (PM) 10, Land surface temperature (LST), river water quality, noise using image and field derived data in pre and during lockdown periods. Result clearly exhibits that Maximum PM10 concentration was 189 to 278 mug/m<sup>3</sup> in pre lockdown period and it now ranges from 50 to 60 mug/m<sup>3</sup> after 18 days of the commencement of lockdown in selected four stone crushing clusters. LST is reduced by 3-5 degreesC, noise level is dropped to <65dBA which was above 85dBA in stone crusher dominated areas in pre lockdown period. Adjacent river water is qualitatively improved due to stoppage of dust release to the river. For instance, total dissolve solid (TDS) level in river water adjacent to crushing unit is attenuated by almost two times. When entire world is worried about the appropriate policies for abating environmental pollution, this emergency lockdown shows an absolute way i.e. pollution source management may restore environment and ecosystem with very rapid rate.

#### Publication Type

Journal article.

<381>

#### Accession Number

20203257190

#### Author

Mahajan, N.; Singla, M.; Singh, B.; Sajja, V.; Bansal, P.; Paul, B.; Goel, P.; Midha, R.; Bansal, R.; Singh, G.

#### Title

2019-NCov: what every neurologist should know?

#### Source

Annals of Indian Academy of Neurology; 2020. 23(7 (Suppl.)):28-32. 22 ref.

#### Publisher

Medknow Publications

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Location of Publisher

Mumbai

Country of Publication

India

Abstract

The 2019 novel Corona Virus pandemic beginning from Wuhan, China primarily affects the respiratory tract but its has impacted clinical practice across a range of specialities including neurology. We review the bearing of the 2019 NCoV infection on neurological practice. Neurological manifestations are less common than respiratory manifestations, yet conspicuous, affecting nearly over a third of hospitalized individuals. These may be classified in to early -headache, dizziness, hyposmia and hypogeusia and late -encephalopathy. Rarely but surely, a very small proportion of infected individuals might present with stroke. Certain neurological conditions, including cerebrovascular disease in both China and Italy and dementia in Italy predispose to infection and more severe manifestations, requiring intensive care unit admission. There is no convincing evidence that the manifestations, course and outcome of various neurological disorders is impacted by 2019 nCoV infection. Concerns of an increased risk of febrile seizures offset by a reduced frequency of infection in the paediatric age group. Individuals with multiple sclerosis might potentially experience both true and pseudorelapses. Besides a direct effect, 2019 nCoV has tremendously affected neurological care by disrupting the continuity of care and the availability of neurological medicines worldwide. Neurologists should respond to this challenge by developing and sustaining innovative methods of providing care as well as alerting the society at large to adopt measures to contain the spread of 2019 nCoV.

Publication Type

Journal article.

<382>

Accession Number

20203254044

Author

Valitutto, M. T.; Aung, O.; Tun, K. Y. N.; Vodzak, M. E.; Zimmerman, D.; Yu, J. H.; Win, Y. T.; Maw, M. T.; Thein, W. Z.; Win, H. H.; Dhanota, J.; Ontiveros, V.; Smith, B.; Tremereau-Brevard, A.; Goldstein, T.; Johnson, C. K.; Murray, S.; Mazet, J.

Title

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Detection of novel coronaviruses in bats in Myanmar.

Source

PLoS ONE; 2020. 15(4)49 ref.

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

Abstract

The recent emergence of bat-borne zoonotic viruses warrants vigilant surveillance in their natural hosts. Of particular concern is the family of coronaviruses, which includes the causative agents of severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), and most recently, Coronavirus Disease 2019 (COVID-19), an epidemic of acute respiratory illness originating from Wuhan, China in December 2019. Viral detection, discovery, and surveillance activities were undertaken in Myanmar to identify viruses in animals at high risk contact interfaces with people. Free-ranging bats were captured, and rectal and oral swabs and guano samples collected for coronaviral screening using broadly reactive consensus conventional polymerase chain reaction. Sequences from positives were compared to known coronaviruses. Three novel alphacoronaviruses, three novel betacoronaviruses, and one known alphacoronavirus previously identified in other southeast Asian countries were detected for the first time in bats in Myanmar. Ongoing land use change remains a prominent driver of zoonotic disease emergence in Myanmar, bringing humans into ever closer contact with wildlife, and justifying continued surveillance and vigilance at broad scales.

Publication Type

Journal article.

<383>

Accession Number

20203257106

Author

Cabore, J. W.; Karamagi, H. C.; Kipruto, H.; Asamani, J. A.; Droti, B.; Seydi, A. B. W.; Titi-Ofei, R.; Impouma, B.; Yao Michel; Yoti, Z.; Zawaira, F.; Tumusiime, P.; Talisuna, A.; Kasolo, F. C.; Moeti, M. R.

Title

The potential effects of widespread community transmission of SARS-CoV-2 infection in the world health organization African region: a predictive model.

Source

BMJ Global Health; 2020. 5(5)many ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

The spread of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) has been unprecedented in its speed and effects. Interruption of its transmission to prevent widespread community transmission is critical because its effects go beyond the number of COVID-19 cases and deaths and affect the health system capacity to provide other essential services. Highlighting the implications of such a situation, the predictions presented here are derived using a Markov chain model, with the transition states and country specific probabilities derived based on currently available knowledge. A risk of exposure, and vulnerability index are used to make the probabilities country specific. The results predict a high risk of exposure in states of small size, together with Algeria, South Africa and Cameroon. Nigeria will have the largest number of infections, followed by Algeria and South Africa. Mauritania would have the fewest cases, followed by Seychelles and Eritrea. Per capita, Mauritius, Seychelles and Equatorial Guinea would have the highest proportion of their population affected, while Niger, Mauritania and Chad would have the lowest. Of the World Health Organization's 1 billion population in Africa, 22% (16%-26%) will be infected in the first year, with 37 (29 - 44) million symptomatic cases and 150 078 (82 735-189 579) deaths. There will be an estimated 4.6 (3.6-5.5) million COVID-19 hospitalizations, of which 139 521 (81 876-167 044) would be severe cases requiring oxygen, and 89 043 (52 253-106 599) critical cases requiring breathing support. The needed mitigation measures would significantly strain health system capacities, particularly for secondary and tertiary services, while many cases may pass undetected in primary care facilities due to weak diagnostic capacity and non-specific symptoms. The effect of avoiding widespread and sustained community transmission of SARS-CoV-2 is significant, and most likely outweighs any costs of preventing such a scenario. Effective containment measures should be promoted in all countries to best manage the COVID-19 pandemic.

Publication Type

Journal article.

<384>

Accession Number

20203250292

Author

Li LiangLiang; Yu YanYan

Title

Management strategies for patients with chronic viral hepatitis during the coronavirus disease 2019 epidemic. [Chinese]

Source

Journal of Clinical Hepatology; 2020. 36(5):1000-1003. 35 ref.

Publisher

Journal of Clinical Hepatology

Location of Publisher

Changchun

Country of Publication

China

Abstract

During the severe epidemic of coronavirus disease 2019 (COVID -19) in China, some patients with chronic viral hepatitis have difficulties in attending the hospital and getting medical treatment. This article introduces the management strategies for patients with chronic viral hepatitis in medical institutions, including long prescription to improve patients' compliance, long-distance online outpatient service, participation of community health service centers in management, medication guidance for patients by pharmacists, and nurses' participation in improving patients' self-management ability. At the same time, patients should also strengthen the self-management of life style and take protective measures when going out. With the efforts of both doctors and patients, proper management of patients with chronic viral hepatitis will be achieved during this special period.

Publication Type

Journal article.



<385>

Accession Number

20203250287

Author

Nehginpao Kipgen

Title

COVID-19 pandemic and racism in the United States and India.

Source

Economic and Political Weekly; 2020. 55(23)36 ref.

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The novel coronavirus or COVID-19 pandemic has changed the world in many ways. Among the several implications for humanity, is the lesser talked-about issue of racism that has inherent psychological impacts. This article examines the rise of racial discrimination in the two largest democracies of the world-the United States and India. It argues that the stigmatisation of a certain race triggers racial division and hinders the collective fight against the pandemic, and can be as deadly and dangerous to humanity as the virus itself.

Publication Type

Journal article.

<386>

Accession Number

20203246378

Author

Isaifan, R. J.

Title

The dramatic impact of coronavirus outbreak on air quality: has it saved as much as it has killed so far?

Source

Global Journal of Environmental Science and Management; 2020. 6(3):275-288. 34 ref.

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

The outbreak of coronavirus disease (COVID-19) was first reported from Wuhan, China, on December 31st, 2019. As the number of coronavirus infections has exceeded 100,000 with toll deaths of about 5000 worldwide as of early March, 2020, scientists and researchers are racing to investigate the nature of this virus and evaluate the short and long term effects of this disease. Despite its negative impacts that obliged the World Health Organization to declare COVID-19 epidemic as a Public Health Emergency of International Concern, the rate of mortality of this infection has not exceeded 3.4% globally. On the other hand, the mortality rate caused by ambient air pollution has contributed to 7.6% of all deaths in 2016 worldwide. The outbreak of COVID-19 has forced China to lockdown its industrial activities and hence dropped its NO<sub>2</sub> and carbon emissions by 30 and 25%, respectively. This work reports on the first case study that compares the air quality status before and after the crisis. It sheds light on the facts related to the demographics of deaths by gender, age and health status before infection. The historical data on air quality, estimates of annual deaths and its economic burden have been presented and analyzed. The actual daily deaths due to COVID-19 have been obtained from the official records of the daily Situation Reports published by World Health Organization as of March 11th. The rate of mortality due to COVID-19 was impacted by two factors: age and health status. Results show that 75% of deaths were related to cases that had underlying present diseases with the majority aged of 80+ years. The reported figures were compared with the average daily mortality due to poor air quality which reached up to 3287 deaths due to high levels of NO<sub>2</sub>, O<sub>3</sub> and PM. The air quality status before the crisis was compared with the

current situation showing that COVID-19 forced-industrial and anthropogenic activities lockdown may have saved more lives by preventing ambient air pollution than by preventing infection.

Publication Type

Journal article.

<387>

Accession Number

20203241399

Author

Sharma, S. K.; Shiv Mudgal; Prasan Panda; Pratima Gupta; Pradeep Aggarwal

Title

COVID-19: guidance outlines on infection prevention and control for health care workers.

Source

Indian Journal of Community Health; 2020. 32(1):8-14. 16 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

This paper tries to explain guidance outlines on infection prevention and control (IPC) precaution to be used by health care professionals, when they are caring patients with suspected or confirmed SARS-CoV-2 infection. These guidance outlines should be practiced in agreement with local or national guidelines. This guideline is still under review and based on the limited scientific fact about SARS-CoV-2/COVID-19 as it is a recently detected strain of coronavirus family. Therefore, this guidance is based on previous knowledge about coronaviruses with serious epidemic potential like MERS and SARS and on recent information of the situation in China and other countries where cases were identified. This

judicious attempt will be refined and revised as further scientific information becomes accessible about SARS-CoV-2.

Publication Type

Journal article.

<388>

Accession Number

20203241892

Author

Oliveira, W. K. de; Duarte, E.; Fran&ccedil;a, G. V. A. de; Garcia, L. P.

Title

How Brazil can hold back COVID-19.

Source

Epidemiologia e ServiAos de SaAde; 2020. 29(2)30 ref.

Publisher

Ministerio de Saude

Location of Publisher

Brasilia

Country of Publication

Brazil

Abstract

This article presents the strategies and actions adopted by the Brazilian Ministry of Health to hold back COVID-19. The response to the disease was immediate and occurred prior to the first case being detected in Brazil. Provision of information and communication to the population and the press was adopted as a fundamental strategy for addressing the epidemic. Guidance provided to the population has been clear, stressing the importance of coronavirus transmission prevention measures. Efforts have been directed towards strengthening health surveillance and health care, as well as boosting research, development and innovation. Actions have targeted human resource training and expanding coverage afforded by the Brazilian National Health System (SUS). Protecting health workers is a priority. All SUS

health workers, managers and directors are dedicated to preserving the health and life of each and every Brazilian citizen.

Publication Type

Journal article.

<389>

Accession Number

20203248092

Author

Tamang, S. K.; Singh, P. D.; B. Datta

Title

Forecasting of Covid-19 cases based on prediction using artificial neural network curve fitting technique. (Special Issue: Covid-19.)

Source

Global Journal of Environmental Science and Management; 2020. 6(Special Issue):53-64. 34 ref.

Publisher

Iran Solid Waste Association

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Artificial neural network is considered one of the most efficient methods in processing huge data sets that can be analyzed computationally to reveal patterns, trends, prediction, forecasting etc. It has a great prospective in engineering as well as in medical applications. The present work employs artificial neural network-based curve fitting techniques in prediction and forecasting of the Covid-19 number of rising cases and death cases in India, USA, France, and UK, considering the progressive trends of China and South Korea. In this paper, three cases are considered to analyze the outbreak of Covid-19 pandemic viz., (i) forecasting as per the present trend of rising cases of different countries (ii)

forecasting of one week following up with the improvement trends as per China and South Korea, and (iii) forecasting if followed up the progressive trends as per China and South Korea before a week. The results have shown that ANN can efficiently forecast the future cases of COVID 19 outbreak of any country. The study shows that the confirmed cases of India, USA, France and UK could be about 50,000 to 1,60,000, 12,00,000 to 17,00,000, 1,40,000 to 1,50,000 and 2,40,000 to 2,50,000 respectively and may take about 2 to 10 months based on progressive trends of China and South Korea. Similarly, the death toll for these countries just before controlling could be about 1600 to 4000 for India, 1,35,000 to 1,00,000 for USA, 40,000 to 55,000 for France, 35,000 to 47,000 for UK during the same period of study.

#### Publication Type

Journal article.

<390>

#### Accession Number

20203248089

#### Author

Abu-Qdais, H. A.; Al-Ghazo, M. A.; Al-Ghazo, E. M.

#### Title

Statistical analysis and characteristics of hospital medical waste under novel Coronavirus outbreak.  
(Special Issue: Covid-19.)

#### Source

Global Journal of Environmental Science and Management; 2020. 6(Special Issue):21-30. 21 ref.

#### Publisher

Iran Solid Waste Association

#### Location of Publisher

Tehran

#### Country of Publication

Iran

#### Abstract

One of the sources of infection as a result of coronavirus disease treatment is the medical waste generated during the health care activities. Since the registration of the first infected case of coronavirus in Jordan the daily number of patients fluctuated from as low as zero to as high as 40 with a recovery ratio and case fatality risk of 39% and 1.7%, respectively. The main objective of the present study is to carry out statistical analysis and assess the generation rates and the composition of the medical waste generated during the treatment of coronavirus pandemic with reference to a major tertiary care hospital in Jordan. Data on the daily generated waste, number of the admitted patients and on the amounts of consumables like various personal protective equipment, testing kits, and disinfectant used during the treatment of coronavirus disease was obtained. Data was subjected to descriptive statistical analysis to find the average generation rates, 3 days moving average, as well as the frequency distribution of the generated amounts. During 25 days' period, King Abdullah University Hospital has admitted 95 infected patients by coronavirus. The amount of the average rate of the medical waste generated as a result of coronavirus treatment was found to be 14.16 kg/patient/day and 3.95 kg/bed/day, which are more than tenfold higher than the average generation rate during the regular operational days of the hospital. Frequency analysis of the data revealed that the medical waste generation follows log normal distribution with correlation coefficient of 0.89. The distribution is distorted to the right and flatter than the normal distribution curve as judged by the skewness and kurtosis coefficients, respectively, which indicates deviation from normality.

Publication Type

Journal article.

<391>

Accession Number

20203248034

Author

Biswas, P. P.

Title

Skewed urbanisation and the contagion.

Source

Economic and Political Weekly; 2020. 55(16)

Publisher

Sameeksha Trust

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Location of Publisher

Mumbai

Country of Publication

India

Abstract

Alongside the dearth of healthcare infrastructure, unplanned and market-driven urbanisation further challenges the containment of the outbreak of infections like Covid-19, in India. In this context, the prospects of an inclusive urban land use plan are also focused on.

Publication Type

Journal article.

<392>

Accession Number

20203241148

Author

Mirmohammadkhani, M.; Paknazar, F.; Rashidy-Pour, A.

Title

Evaluation of the epidemiological pattern of COVID-19 applying basic reproduction number: an educational review article. [Persian]

Source

Koomesh; 2020. 22(3):Fa373-Fa379, En48. 37 ref.

Publisher

Semnan University of Medical Sciences and Health Services

Location of Publisher

Semnan

Country of Publication

Iran



## Abstract

After the onset of the COVID-19 outbreak in Wuhan, China, and its spread to other countries, confrontation with it as an international emergency in all countries was seriously on the agenda of governments. Our country was not immune to this outbreak. Effective measures to combat this new virus would be certainly based on a proper understanding of the epidemiological pattern and its evaluation in the community. Under these circumstances, proper understanding and use of epidemiology-based indicators or approaches are more than ever needed by authorities and decision-makers. One of the most important and commonly used indices that have been used in most epidemics, including the COVID-19 outbreak, is the Basic Reproduction Number ( $R_0$ ). Given the increasing need for the medical community and health care staff to deepen their understanding of the epidemiological concepts in dealing with epidemics, this article aimed to define  $R_0$  and its application in the evaluation and monitoring of the COVID-19 epidemiological pattern in society.

## Publication Type

Journal article.

<393>

## Accession Number

20203241123

## Author

Gorry, C.

## Title

COVID-19 case detection: Cuba's active screening approach.

## Source

MEDICC Review; 2020. 22(2):58-63. 7 ref.

## Publisher

MEDICC

## Location of Publisher

Decatur

## Country of Publication

USA

## Abstract

The screening center enforces international protocols for safeguarding the health of both patients and staff. This means that before each consult, residents don sterilized surgical caps, masks, goggles and gloves; changing these after each patient; and taking care to properly remove and dispose of these in separate, sterile receptacles for each item. Standard surgical hand-washing techniques are used and exams are performed at a distance of three feet, with the patient's back to the resident or specialist. After each screening, all equipment and the exam room are disinfected. As the world continues to struggle against the pandemic caused by SARS-CoV-2 evidence from a variety of contexts shows that certain factors are fundamental in the fight against this common enemy, including: the political will to prioritize public health, community participation and cooperation in prevention measures, and the early case detection that leads to timely treatment. With an accessible universal system rooted in community-based, primary health care and deep reserves of trained and experienced health professionals, Cuba was better prepared than many developing countries when COVID-19 struck despite material scarcity, sometimes acute. From the beginning of the outbreak, time-saving efforts to seek out every suspected case were made possible by the willingness of thousands of trained medical students, with previous experience, to conduct total-population active screening. Honing their skills in the field, based on humanistic principles and ethical commitment to population and individual health, bodes well for their futures and that of their patients.

## Publication Type

Journal article.

<394>

## Accession Number

20203248537

## Author

Boccalatte, L. A.; Larrañaga, J. J.; Perez Raffo, G. M.; Tejjido, C. A.; García Fornari, G.; Staneloni, M. I.; Figari, M. F.

## Title

Brief guideline for the prevention of COVID-19 infection in head and neck and otolaryngology surgeons.

## Source

American Journal of Otolaryngology; 2020. 41(3)19 ref.

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Publisher

Elsevier Inc.

Location of Publisher

Philadelphia

Country of Publication

USA

Abstract

Importance: Anatomically, viral density is greater in the nasal cavity and the nasopharynx. It is to be expected that instrumentation in or through those areas will entail a higher risk of transmission. That's why head and neck and otolaryngologist surgeons are among the most vulnerable health professionals. Observations: Surgeons should essentially perform procedures they require. Surgeries should be performed with personal protective equipment suitable for the high risk of aerosolization: goggles, N95 face mask, facial mask, blood-repelling gown and gloves. It is advisable to have the cooperative COVID-19 test in all patients. Telemedicine is a useful resource if resources allow it. Conclusions and relevance: Otolaryngologists and related specialists are among the groups at higher risk when performing surgeries and upper airway examinations. There are no emergencies in a pandemic. The care of health professionals is crucial to combating this health situation.

Publication Type

Journal article.

<395>

Accession Number

20203248527

Author

Satheesh Bhandary; Rajeshwary Aroor; Sreesan, P.; Mark, J. V.; Vadisha Bhat

Title

Self-swabbing in coronavirus pandemic - a game changer which can be introduced in field. (Special Issue: The epidemiologist and the pandemic.)

Source

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

COVID-19, the disease caused by the novel coronavirus, SARS-CoV-2, is a highly contagious infection known to spread rapidly, leading to severe consequences and disasters. Health care workers are at higher risk of getting the infection, during the process of diagnosis and treatment of patients with the disease. Worldwide, a lot of health care workers have lost their lives because of COVID-19 infection. Managing the COVID-19 caseload is a real challenge to the health care system. For the diagnosis of COVID-19, both nasopharyngeal and oropharyngeal swabs are obtained to detect viral RNA. (1). A nasopharyngeal swab is more sensitive due to higher viral load in nasal secretions than oral secretions, which is similar to that of Influenza (2). Taking nasopharyngeal swab is a real challenge to the health care workers and also is uncomfortable for the patient. It also exposes the health care workers to aerosols. Moreover, the scarcity of personal protective equipment (PPE) is a real burden to the health care system.

Publication Type

Journal article.

<396>

Accession Number

20203248523

Author

Senthilnathan Subramaniam; Praveen Madala

Title

Screening of COVID-19 suspect cases in a Cargo ship: a rare field experience. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):281-287. 11 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

**Background:** World Health Organization (WHO), China Country Office informed cases of pneumonia of unknown aetiology detected in Wuhan City, Hubei Province of China. On 7th January 2020, Chinese authorities identified a new strain of Coronavirus as the causative agent for the disease. By 1st April 2020, the disease since its first detection in China has spread to over 200 countries/territories leading to a total of 823626 confirmed cases and 40598 deaths. WHO declared the novel Coronavirus outbreak as a Pandemic on 11 March 2020 and named the 2019 novel Coronavirus as COVID-19. As the screening of these suspects in ships is a challenging and novel one, the present study was aimed at identifying the proper and systematic way of screening of these suspects. Screening if done systematically aids in early diagnosis of the COVID-19 suspects and if coupled with pre-arrival preparedness through e-mail follow up helps in proper planning. Proper risk communication can help in alleviating the fears of the stakeholders and public. **Aims & Objectives:** The primary objective of this study was to screen the COVID-19 suspect cases systematically in the vessels and the secondary objectives were to identify any gaps in the process of collection, transport and receipt of results of samples of COVID-19 Suspect cases, know the process of risk communication & to share the experience to other seaports for duplication. **Materials & Methods:** Screening was done for all the crew by the Investigators with proper Personal Protective Equipment (PPE) on the Bridge (Navigation Deck) of the vessel mainly for recording the temperature and eliciting other signs & symptoms of COVID -19. It was then followed by sending the samples of the two COVID-19 suspects for testing to the Government approved laboratory in a systematic way. Risk communication was also done to all the stakeholders and media in a well-coordinated manner at the earliest to update them on the facts and to prevent false communication. **Results:** Pre-arrival preparedness through screening of pre-arrival documents and systematic approach adopted for screening of the COVID-19 suspects led to early diagnosis of the suspects. Samples were collected as per protocol and sent for testing to the laboratory and reports of the same were obtained without any much constraints through proper liaison with Tamilnadu State Health team. Risk communication to the stakeholders and media prevented panic among the public and stakeholders. **Conclusions:** Pre-arrival e-mail follow-up and arrangements like coordination meeting with the stakeholders led to proper planning. Systematic screening and proper liaison with State Health team

helped in the early diagnosis of the suspects. Proper and early risk communication to the stakeholders and media prevents panic, facilitates good support and prevents communication of maleficious information to the public.

Publication Type

Journal article.

<397>

Accession Number

20203248517

Author

Joseph, B.; Kallumkal, M. G.

Title

COVID-19 in occupational settings: lessons from 100 years ago and addressing the disease today. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):255-260. 19 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

COVID-19 is a disease caused by the novel coronavirus (SARS-CoV-2). On January 30th, 2020 the outbreak of Novel Coronavirus 2019 was declared a Public Health Emergency of International Concern by the World Health Organization. COVID-19 was declared a pandemic on the 11th of March 2020. The virus spreads from person to person through close contact, touching contaminated surfaces and then touching the eyes, nose or mouth. Preventive measures are taken at all workplaces to stop the spread of

COVID-19. Social distancing, regular hand washing with soap and water for 20 seconds, use of alcohol-based hand sanitizer and cough etiquette must be practiced at all times. Hospitals, schools, colleges, hospitality, apparel and manufacturing industries now practice hand hygiene, social distancing, regular disinfection of contaminated surfaces, staggered work shifts, correct use of face mask if mild symptoms develop and shutting down of establishments as per instructions of the local health authorities. COVID-19 is already affecting tens of millions of informal workers all around the world. India has a share of almost 90 percent of working people which amount to 400 million workers in the informal economy, who are at the risk of falling into poverty during this crisis. The current lock down measures in India have affected these workers, compelling them to return to rural areas. Poverty along with the spread of the COVID-19 would further worsen the situation. Without dwelling on the healthcare setting, this paper discusses various preventive measures to be implemented in three different sectors. These interventions can be adapted to others as well, to stop the transmission of COVID-19.

Publication Type

Journal article.

<398>

Accession Number

20203248516

Author

Upadhyay, M. K.; Somdatta Patra; Khan, A. M.

Title

Ensuring availability of food for child nutrition amidst the COVID - 19 pandemic: Challenges and way forward. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):251-254. 16 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)

State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

Coronavirus (COVID-19) pandemic spread in India is steeply rising. A 21-day lockdown has been imposed by the Government of India, to curtail its spread. This has impacted all walks of life, including availability of food and nutrition related services which would affect nutritional status of children throughout India. The two major schemes, i.e. Integrated Child Development Services Scheme and Mid-day Meal Scheme have been affected leading to risk of worsening of child nutrition. Some states have evolved their own strategies to mitigate the effect of lockdown. Here we discuss the challenges and way forward for ensuring availability of food for child nutrition during this health crisis. No single, optimal response to a public health emergency exists. The government and non-government partners must coordinate and scale up child nutrition services in the community through strengthening of public distribution system and home delivery of food parcels wherever feasible for beneficiaries of child nutrition programs.

Publication Type

Journal article.

<399>

Accession Number

20203248508

Author

Pratima Gupta; Aroop Mohanty; Himanshu Narula; Vanya Singh; Deepjyoti Kalita; Saurabh Varshney; Ankita Kabi; Pradeep Aggarwal

Title

Concise information for the frontline health care workers in the era of COVID-19. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):215-224. 60 ref.

Publisher



Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

Background: COVID-19, a disease caused by SARS-CoV-2 has become a public health emergency of worldwide concern. Originated in Wuhan District of China, it has spread globally at a very rapid rate causing millions of deaths worldwide. Aims and Objectives: To summarize findings from all the current literature available from different databases regarding the epidemiological, clinical characteristics, laboratory diagnosis, treatment, prevention and control of the SARS-CoV-2. This will help out the reader to have a fine gist of all the data available on SARS-CoV-2 in an effective manner. Methods: All the research literature from Jan-March 2020 and available on the following online databases: bio-Rxiv, PubMed, Google Scholar, Embase as well as CNKI and Wang Fang data were included in the review. The keywords used for data search were "coronavirus", "nCoV", "2019-nCoV", and "COVID-19". Conclusion: After undergoing extensive literature search, it can be concluded that it mainly effects elderly male population. Mode of transmission is droplet transmission and human to human transmission is present. The main diagnostic modality remains molecular assays though several rapid testing methods are on the way. Due to lack of specific treatment guidelines, Infection control and supportive treatment remain the mainstay. Plethora of experiments are under trails for development of effective vaccine which can be a ray of hope in future.

Publication Type

Journal article.

<400>

Accession Number

20203248506

Author

Ramamurthy Deepthi; Masthi, N. R. R.; Nirmala, C. J.; Rangappa Manjula; Sivakumar Vinothkumar

Title

Personal protective equipments (PPE) - prerequisites, rationale and challenges during COVID 19 pandemic. (Special Issue: The epidemiologist and the pandemic.)

Source

Indian Journal of Community Health; 2020. 32(Suppl. 2):196-205. 41 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)

State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

Personal protective equipment (PPE) usage is pivotal in prevention of COVID19. Access to PPE for health workers has become a key concern. Electronic databases were searched for studies, guidelines, reports and policies on PPE, COVID19 and respiratory infections. In total 20 research articles were included, 10 guidelines and 06 reports from various health organization and National governments were included. There are different types of masks available, it is essential to understand the role of each kind of mask in preventing the spread. Minimizing the need for PPE in health care settings, ensuring rational and appropriate use of PPE and Coordinating PPE supply chain management mechanisms are key strategies in addressing global PPE shortage. Ensuring consistent PPE standards and guidance on quality control of the PPE will help in better infection control. We need to apply a risk-based approach based on purpose of use, risk of exposure, vulnerability, setting, feasibility and type of PPE. Government of India is taking several steps and have deliberated on the adequacy and quality of PPEs. Prevention and mitigation measures are the key for prevention of transmission in the Community which include Hand hygiene, Respiratory hygiene, maintaining social distance of two metre and wearing an appropriate PPE. Adequate provision of good quality PPE is just the first step in promoting the safety of health care workers and containing the spread of COVID 19.

Publication Type

Journal article.

<401>

Accession Number

20203238410

Author

Ren Xia; Shao XinXin; Li XiuXue; Jia XinHua; Song Tao; Zhou WuYi; Wang Peng; Li Yang; Wang XiaoLong; Cui QingHua; Qiu PeiJu; Zhao YanGang; Li XueBo; Zhang FengCong; Li ZhenYang; Zhong Yue; Wang ZhenGuo; Fu XianJun

Title

Identifying potential treatments of Covid-19 from traditional Chinese medicine (TCM) by using a data-driven approach.

Source

Journal of Ethnopharmacology; 2020. 25833 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Ethnopharmacological relevance: Traditional Chinese Medicine (TCM) has been widely used as an approach worldwide. Chinese Medicines (CMs) had been used to treat and prevent viral infection pneumonia diseases for thousands of years and had accumulated a large number of clinical experiences and effective prescriptions. Aim of the study: This research aimed to systematically excavate the classical prescriptions of Chinese Medicine (CM), which have been used to prevent and treat Pestilence (Wenbing, Wenyi, Shiyi or Yibing) for long history in China, to obtain the potential prescriptions and ingredients to alternatively treat COVID-19. Materials and methods: We developed the screening system based on data mining, molecular docking and network pharmacology. Data mining and association network were used to mine the high-frequency herbs and formulas from ancient prescriptions. Virtual screening for the effective components of high frequency CMs and compatibility Chinese Medicine was explored by a molecular docking approach. Furthermore, network pharmacology method was used to preliminarily uncover the molecule mechanism. Results: 574 prescriptions were obtained from 96,606 classical prescriptions with the key words to treat "Warm diseases (Wenbing)", "Pestilence (Wenyi or Yibing)" or "Epidemic diseases (Shiyi)". Meanwhile, 40 kinds of CMs, 36 CMs-pairs, 6 triple-CMs-groups existed with high frequency among the 574 prescriptions. Additionally, the key targets of SARS-COV-2, namely 3CL hydrolase (Mpro) and angiotensin-converting enzyme 2(ACE2), were used to dock the main ingredients from the 40 kinds by the LigandFitDock method. A total of 66 compounds components with higher frequency were docked with the COVID-19 targets, which were distributed in 26 kinds of CMs, among which Gancao (Glycyrrhizae Radix Et Rhizoma), HuangQin (Scutellariae Radix), Dahuang (Rhei

Radix Et Rhizome) and Chaihu (Bupleuri Radix) contain more potential compounds. Network pharmacology results showed that Gancao (Glycyrrhizae Radix Et Rhizoma) and HuangQin (Scutellariae Radix) CMS-pairs could also interact with the targets involving in immune and inflammation diseases. Conclusions: These results we obtained probably provided potential candidate CMs formulas or active ingredients to overcome COVID-19. Prospectively, animal experiment and rigorous clinic studies are needed to confirm the potential preventive and treat effect of these CMs and compounds.

Publication Type

Journal article.

<402>

Accession Number

20203241400

Author

Ranjitha Ranganathan; Khan, A. M.

Title

Antenatal care, care at birth, and breastfeeding during the coronavirus (COVID - 19) pandemic.

Source

Indian Journal of Community Health; 2020. 32(1):15-18. 8 ref.

Publisher

Indian Association of Preventive and Social Medicine, Uttar Pradesh and Uttarakhand (IAPSMUPUK)  
State Chapter

Location of Publisher

Etawah

Country of Publication

India

Abstract

Coronavirus (COVID-19) pandemic has been declared by the World Health Organization after it has gripped many countries of the world. The exponential increase in the number of cases has resulted in panic and confusion among healthcare workers and the vulnerable population. Pregnant and lactating

mothers are a vulnerable group and need evidence-based advice to protect the health of the mother and the child. Healthcare workers can play an important role in dispelling the myths and misconceptions among pregnant and lactating mothers regarding COVID-19, if they are equipped with scientific information on antenatal care, care at birth, and breastfeeding. This review attempts to summarize the published evidence related to antenatal care, care at birth and breastfeeding during the COVID-19 pandemic.

Publication Type

Journal article.

<403>

Accession Number

20203228849

Author

Haley, E.; Caxaj, S.; George, G.; Hennebry, J. L.; Martell, E.; McLaughlin, J.

Title

Migrant farmworkers face heightened vulnerabilities during COVID-19.

Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(3):35-39. 9 ref.

Publisher

New Leaf Associates

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

This paper looks at the vulnerabilities of migrant farm workers in Canada in the face of the COVID-19 health crisis, and offers some suggestions for protecting the rights and health of these migrant farm workers.

Publication Type

Journal article.

<404>

Accession Number

20203228848

Author

Goetz, S. J.; Schmidt, C.; Chase, L.; Kolodinsky, J.

Title

Americans' food spending patterns explain devastating impact of COVID-19 lockdowns on agriculture.

Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(3):31-33. 4 ref.

Publisher

New Leaf Associates

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

This paper explores the impact of the COVID-19 pandemic on US agriculture by using USDA's Food Expenditures by Outlet data. With the social distancing and stay-at-home orders, where people obtain their food has changed dramatically. This has contributed to logistical problems in the supply chain.

Publication Type

Journal article.

<405>

Accession Number

20203228844

Author

Kolodinsky, J.; Sitaker, M.; Chase, L.; Smith, D.; Wang WeiWei

Title

Food systems disruptions: turning a threat into an opportunity for local food systems.

Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(3):5-8. 23 ref.

Publisher

New Leaf Associates

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

This paper offers a view of the food system disruptions caused by the COVID-19 pandemic and how our experience today may shape a more resilient food system in the future.

Publication Type

Journal article.

<406>

Accession Number

20203238283

#### Author

Schneider, S. M.; Albert, V.; Barbier, N.; Barnoud, D.; Bouteloup, C.; Chambrier, C.; Fayemendy, P.; Flori, N.; Goulet, O.; Guimber, D.; Jirka, A.; Joly, F.; Lescut, D.; Neuville, S.; Piquet, M. A.; Poullenot, F.; Quilliot, D.; S&eacute;guy, D.; Stocco, J.; Thibault, R.; D&eacute;chelotte, P.

#### Title

Changes in care of home artificial nutrition patients during the COVID-19 epidemics in France: position of the French-speaking Society for Clinical Nutrition and Metabolism (SFNCM)'s Home Artificial Nutrition Committee. [French]

#### Source

Nutrition Clinique et Metabolisme; 2020. 34(2):105-107. 6 ref.

#### Publisher

Elsevier Masson SAS

#### Location of Publisher

Issy-les-Moulineaux

#### Country of Publication

France

#### Abstract

Home artificial nutrition, whether enteral or parenteral, is provided to chronic and fragile patients. The current COVID-19 epidemics may compromise their care at several levels: difficulties to access to hospitals mainly focused on treating COVID-19 patients, possible lack of nurses at home, strong reduction of visits by homecare providers, tended flow or lack of hand sanitizers, surgical masks and pumps. The aim of these recommendations put together by the French-speaking Society for Clinical Nutrition and Metabolism (SFNCM)'s Home Artificial Nutrition Committee is to define in terms of healthcare resources the minimum care to provide to these patients. We also aim to help cope with the possible tensions, in order to secure the care we must provide to home artificial nutrition patients during this crisis.

#### Publication Type

Journal article.

<407>



Accession Number

20203238282

Author

Thibault, R.; Quilliot, D.; Seguin, P.; Tamion, F.; Schneider, S.; D'echelotte, P.

Title

Nutritional care at hospital during the Covid-19 viral epidemic: expert opinion from the French-speaking society for clinical nutrition and metabolism (SFNCM). [French]

Source

Nutrition Clinique et Metabolisme; 2020. 34(2):97-104. 8 ref.

Publisher

Elsevier Masson SAS

Location of Publisher

Issy-les-Moulineaux

Country of Publication

France

Abstract

The viral epidemic caused by the new Coronavirus SARS-CoV-2 is responsible for the new Coronavirus disease-2019 (Covid-19). This epidemic imposes upheavals in our organizations in healthcare centres, which should not obscure the importance of nutritional care. The nutritional diagnosis and the early nutritional care management of Covid-19 patients must be integrated into the overall therapeutic strategy, as with any acute situation of acute illness. This document was prepared by the French speaking Society for Clinical Nutrition and Metabolism (SFNCM) in the emergency of the health crisis by a group of experts, based on the national and international recommendations available in the field of malnutrition, critical illness, metabolic stress and intensive care medicine on March 23, 2020. We hope that this article will bring to healthcare professionals especially those not specialized in nutrition, useful landmarks to help them to manage hospitalized patients, infected or not by Covid-19 in the context of epidemic and intrahospital confinement.

Publication Type

Journal article.

<408>

Accession Number

20203238244

Author

Dodangeh, M.; Dodangeh, M.

Title

Iranian healthcare system against COVID-19.

Source

GERMS; 2020. 10(2):112-114. 10 ref.

Publisher

European Academy of HIV/AIDS and Infectious Diseases

Location of Publisher

Bucharest

Country of Publication

Romania

Abstract

Viruses are one of the major causes of morbidity and mortality worldwide. The Wuhan Municipal Health Commission reported an unknown pathogen is a cause of the outbreak of viral pneumonia that produced an influenza-like syndrome in Wuhan City, Hubei Province of China in December 2019. This pathogen was an enveloped, positive-sense, single-stranded RNA virus, a coronavirus that was named 2019-nCov initially then severe acute respiratory syndrome-related coronavirus-2 (SARS-CoV-2), leading to the disease called COVID-19. This virus belongs to the family Coronaviridae in the order Nidovirales. The clinical presentation of COVID-19 can range from mild to severe symptoms, specifically from fever and dry cough to complications such as severe acute respiratory distress syndrome and sepsis. The consequences of COVID-19 infection patients can be lethal, particularly in patients with underlying diseases, such as cardiac failure, hypertension, diabetes, asthma, and chronic lung disease. At the moment, the reproduction number of 2019-nCoV is thought to be 2.68 (95%CI 2.47-2.86), while the reproduction number of seasonal influenza is 1.28. So COVID-19 is more contagious than seasonal influenza. At the moment, the mortality of COVID-19 in the world is 6.82% and in Iran it is 6.22%, while the mortality rate of SARS-CoV-1 and Middle East respiratory syndrome coronavirus (MERS-CoV) was reported by WHO to be 9.6% and 34.4%. On 19 February 2020, the first case was reported in Iran. The patient was found in Kamkar-Arabnia Hospital of Qom, a city located near Tehran. The government didn't quarantine any cities. And after a while, Iran became a global epicenter of COVID-19. Currently, Tehran, Qom, and Mazandaran have the highest number of patients in Iran, and the cities are in critical condition. As of 20 April 2020, there were 2,314,621 confirmed cases of COVID-19 infection, including 157,847 deaths, reported in the world. Iran has the highest number of confirmed patients (82,211) and deaths (5,118) due to SARS-CoV-2 in the Eastern Mediterranean Region as of 20 April 2020. The Iranian

healthcare system is one of the most well-developed systems globally. It has always had an admirable performance in various challenges such as floods and earthquakes and epidemic diseases and communicable diseases, such as polio, tuberculosis, malaria, HIV/AIDS, influenza, cholera, etc. Despite this, the recent SARS-CoV-2 outbreak in Iran showed that Iran is unprepared to cope with the SARS-CoV-2 pandemic. One of the challenges of Iran's health system in the coronavirus pandemic is the lack of personal protective equipment (PPE). Despite various sanctions that Iran has been struggling with for years, it is difficult to provide PPE. In this way, the frontline medical personnel become infected with the coronavirus and are quarantined or hospitalized. As of 18 April 2020, 1,710 medical personnel were confirmed with COVID-19, including 116 deaths, reported in Iran. Golestan, Tehran, and Esfahan had most medical personnel with COVID-19 in Iran. Medical personnel with COVID-19 infection with mild symptoms will be quarantined at home for 14 days. However, if there are severe symptoms, they will be hospitalized in the intensive care unit. This shortage of PPE and experienced medical staff has meant that less experienced physicians and residents have been recruited for medical care. With all these interpretations, Iran has mobilized all its facilities and equipment to detect, monitor and control COVID-19. The main strengths of the health system in Iran include public and private medical universities, primary, secondary and higher care centers, and public and private laboratories, all of which are distributed as a network across the country. The Iranian Ministry of Health, in collaboration with the Pasteur Institute of Iran, is responsible for the laboratory diagnosis of COVID-19. At the moment, in Iran, more than 50 laboratories are providing diagnostic services with a testing capacity of more than 7,000 cases per day, and most of them are public laboratories. The Deputy of Health and government prepared 750 hospitals with more than 9000 beds (hospital beds per 1000 population: 1.72, population/physician ratio: 900) for COVID-19 patients. According to the steady trend in the number of COVID-19 patients, as well as the good triage of patients in hospitals and the quarantine at the home of patients with mild symptoms, hospital beds still are not filled. The Primary Health Care Network (PHC) is the largest healthcare network in Iran and provides access to primary healthcare in the most remote areas. Iran has more than 5000 rural and urban health centers on the PHC network that are involved in screening, tracking and contact tracking activities. Also, 32,000 volunteer teams formed by the community and NGOs to help healthcare services and government officials against COVID-19. Most of the Iranian physicians, clinicians, nurses, basic medical scientists, most of whom have been instrumental in providing primary, secondary, and excellent laboratories and medical centers to respond to the COVID-19 pandemic had been trained in 67 Iranian Public Medical Universities. After the detection of the first patient with COVID-19 in Iran, the government announces statistics for each city separately. However, due to differences in the diagnostic system and its accuracy in different provinces, sometimes the statistics are not equal. Although Iran is known as one of the epidemic sites in the world, the number of patients is slowly increasing. Due to the tourism industry, trade, and migration between countries, COVID-19 is a global problem, and all countries in the world for the eradication of the disease, need to help each other to provide PPE, hospital equipment, medicines and manpower such as physicians and nurses.

#### Publication Type

Journal article.

<409>

Accession Number

20203237588

Author

Soysal, F.; I&scedil;ler, S. C&tail;.; Peker, &ldot;.; Akca, G.; &Ouml;zmeri&ccedil;., N.; &Uuml;nsal, B.

Title

The impact of COVID-19 pandemic on dentistry practices. [Turkish]

Source

Klimik Dergisi; 2020. 33(1):5-14. 56 ref.

Publisher

AVES Publishing

Location of Publisher

Istanbul

Country of Publication

Turkey

Abstract

The novel coronavirus disease (COVID-19) has been declared as a pandemic disease by the World Health Organization on 11th March, 2020. Various information has been shared from many sources regarding the protection of individuals at risk, especially health care workers after appearance of cases in Turkey, Dentists constitute a high risk group due to the fact that the social distance required for prevention cannot be achieved and because of the transmission probability of the SARS-CoV-2 responsible for COVID-19 through aerosols and droplets during clinical procedures. In this review, the risks of transmission of COVID-19 in dentistry, general principles of prevention, the limits of emergency treatment other than elective treatments, and financial and ethical issues related to the subject in dental hospitals and clinics are discussed in the light of current literature and some suggestions are put forward.

Publication Type

Journal article.

<410>

Accession Number

20203246296

Author

Li Xin; Duan GuangYou; Zhang Wei; Shi JinSong; Chen JiaYuan; Chen ShunMei; Gao Shan; Ruan JiShou

Title

A furin cleavage site was discovered in the S protein of the 2019 novel coronavirus. [Chinese]

Source

Chinese Journal of Bioinformatics; 2020. 18(2):103-108. 10 ref.

Publisher

Chinese Journal of Bioinformatics

Location of Publisher

Harbin

Country of Publication

China

Abstract

The 2019 novel Coronavirus (2019-nCoV) has caused the pneumonia outbreak in Wuhan (a city of China). In our previous study, the analytical results showed that both 2019-nCoV and SARS coronavirus belong to Betacoronavirus subgroup B (BB coronavirus), but have large differences, which are consistent with the differences in the clinical symptoms of two related diseases. The most important finding was that the alternative translation of Nankai CDS could produce more than 17 putative proteins, which may be responsible for the host adaption. The genotyping of 13 viruses using the 17 putative proteins revealed the high mutation rate and diversity of BB coronavirus. The present study for the first time (on January 21st, 2020) reported a very important mutation in the Spike (S) proteins of Betacoronavirus. By this mutation, 2019-nCoV acquired a cleavage site for furin enzyme in its S protein, which is not present in the S proteins of most other Betacoronavirus (e.g. SARS coronavirus). This cleavage site may increase the efficiency of virus infection into cells, making 2019-nCoV has significantly stronger transmissibility than SARS coronavirus. The infection mechanism of 2019-nCoV may be changed to being more similar to those of MHV, HIV, Ebola virus (EBoV) and some avian influenza viruses, other than those of most other Betacoronavirus (e. g. SARS coronavirus). In addition, we unexpectedly found that some avian influenza viruses acquired a cleavage site for furin enzyme by the similar mutation as 2019-nCoV. Therefore, the natural mutation can result in a short insertion to

form a cleavage site for furin enzyme. The cleavage site for furin enzyme in 2019-nCoV contains the "CGGCGG" sequence encoding two arginine (R) residues. "CGG", however, is a rare codon for human. So we concluded that these two codons were present in the 2019-nCoV -like Betacoronavirus before they transmitted into human and the intermediate host (s) are mammals with a high relative frequency of "CGG" usage. We provide a relative frequency table of " CGG" usage in mammals to help identify the intermediate hosts of 2019-nCoV. Future studies of this mutation will help to reveal the stronger transmissibility of 2019-nCoV and lay foundations for vaccine development and drug design of, but not limited to 2019-nCoV.

Publication Type

Journal article.

<411>

Accession Number

20203243169

Author

Kushagra Sharma; Joseph Saji; Ranjeet Kumar; Abins Raju

Title

Psychological and anxiety/depression level assessment among quarantine people during Covid19 outbreak.

Source

Journal of Drug Delivery and Therapeutics; 2020. 10(3):198-201. 17 ref.

Publisher

Journal of Drug Delivery and Therapeutics

Location of Publisher

Greater Noida

Country of Publication

India

Abstract

Background: Covid-19 outbreak results in lockdown of provinces by isolating the infected ones and quarantine the population to prevent community spread of corona virus. During quarantine people has to restrict their movement and keep themselves under self-isolation at their home to prevent infections. In long quarantine period it may create psychological or anxiety/depression problem for some people. The objective of our study is to assess and understand the level of psychological, anxiety/depression in quarantine people during covid19 outbreak. Methods: Self-designed digital questionnaire has been used to assess the psychological and anxiety/depression level. The questionnaire contains questions about demographic, socio-assessment, anxiety/depression and psychological assessment. The questionnaire was circulated via digital medium. Result: Total 181 quarantined people were participated in our study, most of our population ages between of 21-30. General health of our participants is moderately good, Socio-status of our participants is fairly effected may be due to restrict movement and conservative way of living during quarantine period. 60.8% of participants become nervous some of the time, about 50% of participants shows the anxiety/depression symptoms, about 30% of our participants are somewhat affected by their sleeping patterns and about 35% participants are sometimes unsatisfied or slightly satisfied during quarantine period. Apart from this out of 181 participants 15 people are having travel history of International or national destinations. The overall mean is 2.2 and SD is 0.6. Conclusion: We found somewhat negative emotions (anxiety/depression, Socio status) in people during quarantine. Which may show low quality of life or low satisfactory life.

Publication Type

Journal article.

<412>

Accession Number

20203248622

Author

Kalindi Kokal; Vidya Subramanian

Title

Locking down on rights: surveillance and administrative ambiguity in the pandemic.

Source

Economic and Political Weekly; 2020. 55(19)27 ref.

Publisher

Sameeksha Trust

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Location of Publisher

Mumbai

Country of Publication

India

Abstract

As the third chapter of the COVID-19 lockdown in India unfolds, the guidelines provided by the central and state governments remain ambiguous, unclear, and vague. The authors argue that such ambiguity could be strategic. Combined with instances such as the voluntary-but-mandatory use of technological solutions to contain the pandemic, this could effectively put in place a surveillance state that holds in scant regard the civil rights of the citizens it seeks to govern.

Publication Type

Journal article.

<413>

Accession Number

20203247905

Author

Isaac, T. M. T.; Sadanandan, R.

Title

COVID-19, public health system and local governance in Kerala.

Source

Economic and Political Weekly; 2020. 55(21)

Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication



India

#### Abstract

Kerala has been successful in containing COVID-19 and in achieving a low rate of spread, high recovery, and low fatality. The importance of the public health system, social capital and the active involvement of the people through local governments that played a significant role in Kerala's success is highlighted. A brief historical review of the evolution of public health system and local governments in Kerala is also attempted.

#### Publication Type

Journal article.

<414>

#### Accession Number

20203244820

#### Author

Correia, M. I. T. D.

#### Title

Nutrition in times of Covid-19, how to trust the deluge of scientific information.

#### Source

Current Opinion in Clinical Nutrition and Metabolic Care; 2020. 23(4):288-293.

#### Publisher

Lippincott Williams & Wilkins, Inc.

#### Location of Publisher

Hagerstown

#### Country of Publication

USA

#### Abstract

Purpose of review: The Covid-19 pandemic has daunted the world with its enormous impact on healthcare, economic recession, and psychological distress. Nutrition is an integral part of every person

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life care, and should also be mandatorily integrated to patient care under the Covid-19 pandemic. It is crucial to understand how the Covid-19 does develop and which risk factors are associated with negative outcomes and death. Therefore, it is of utmost importance to have studies that respect the basic tenets of the scientific method in order to be trusted. The goal of this review is to discuss the deluge of scientific data and how it might influence clinical reasoning and practice. Recent findings: A large number of scientific manuscripts are daily published worldwide, and the Covid-19 makes no exception. Up to now, data on Covid-19 have come from countries initially affected by the disease and mostly pertain either epidemiological observations or opinion papers. Many of them do not fulfil the essential principles characterizing the adequate scientific method. Summary: It is crucial to be able to critically appraise the scientific literature, in order to provide adequate nutrition therapy to patients, and in particular, to Covid-19 infected individuals.

#### Publication Type

Journal article.

<415>

#### Accession Number

20203221789

#### Author

Pejsak, Z.; Tarasiuk, K.; Tokarz-Deptu&Istrok;a, B.

#### Title

Selected data on the subject of coronaviruses with special emphasis on SARS-CoV-2. [Polish]

#### Source

Medycyna Weterynaryjna; 2020. 76(5):258-262. 11 ref.

#### Publisher

Polskie Towarzystwo Nauk Weterynaryjnych

#### Location of Publisher

Lublin

#### Country of Publication

Poland

## Abstract

Coronaviruses (CoVs) primarily have caused enzootic infections in birds and mammals including swine (TGE, PED, PRCV, HEV, PDCoV). The last decades have shown that some species of CoVs are capable of infecting humans as well. Zoonotic potential of these viruses has been confirmed. This paper provides an important information on coronaviruses with the major focus on the new coronavirus under the name - SARS-CoV-2 - which appeared to be pathogenic and cause COVID 19 in humans. Within the family of coronaviruses similarities between the viruses in pigs and humans have been observed, particularly with regard to the variability in their infectivity and lethal potential. There have been proofed evidences that some of the species of swine coronaviruses and other "disappeared" (e.g. TGE, PED, HEV, SARS). Data on SARS-CoV-2 virus resistance to the environmental factors and potential routes of its entry into the human body have been presented, as well as new diagnostic methods for detection of this infectious agent.

## Publication Type

Journal article.

<416>

## Accession Number

20203237317

## Author

Zabetakis, I.; Lordan, R.; Norton, C.; Tsoupras, A.

## Title

COVID-19: the inflammation link and the role of nutrition in potential mitigation.

## Source

Nutrients; 2020. 12(5)236 ref.

## Publisher

MDPI AG

## Location of Publisher

Basel

## Country of Publication

Switzerland

## Abstract

The novel coronavirus disease (COVID-19) pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has engulfed the world, affecting more than 180 countries. As a result, there has been considerable economic distress globally and a significant loss of life. Sadly, the vulnerable and immunocompromised in our societies seem to be more susceptible to severe COVID-19 complications. Global public health bodies and governments have ignited strategies and issued advisories on various handwashing and hygiene guidelines, social distancing strategies, and, in the most extreme cases, some countries have adopted "stay in place" or lockdown protocols to prevent COVID-19 spread. Notably, there are several significant risk factors for severe COVID-19 infection. These include the presence of poor nutritional status and pre-existing noncommunicable diseases (NCDs) such as diabetes mellitus, chronic lung diseases, cardiovascular diseases (CVD), obesity, and various other diseases that render the patient immunocompromised. These diseases are characterized by systemic inflammation, which may be a common feature of these NCDs, affecting patient outcomes against COVID-19. In this review, we discuss some of the anti-inflammatory therapies that are currently under investigation intended to dampen the cytokine storm of severe COVID-19 infections. Furthermore, nutritional status and the role of diet and lifestyle is considered, as it is known to affect patient outcomes in other severe infections and may play a role in COVID-19 infection. This review speculates the importance of nutrition as a mitigation strategy to support immune function amid the COVID-19 pandemic, identifying food groups and key nutrients of importance that may affect the outcomes of respiratory infections.

## Publication Type

Journal article.

<417>

## Accession Number

20203242238

## Author

Cvetni&acute;, &Zcaron;

## Title

Fear of disease and death - from the variola virus once to COVID-19 today. [Croatian]

## Source

Publisher

Hrvatski veterinarski institut, Centar za peradarstvo

Location of Publisher

Zagreb

Country of Publication

Croatia

Abstract

Throughout history, diseases have had a major impact on the development and prosperity of humankind. They arouse attention due to their mass occurrence, high mortality rates among the affected, and the far-reaching consequences caused. Due to the fear of loss of health and life, illness and death have always been an essential preoccupation for humans. During the past, great epidemics have decided the fate of individual nations, weakened the strength of large and powerful armies, caused hunger and misery. Epidemics of smallpox, plague, malaria, syphilis, cholera, epidemic typhus, and tuberculosis have marked history and been a constant companion to human suffering over many centuries. At the beginning of the 20th century there was the Spanish flu, called the "mother of all pandemics", and by the end of the century, the appearance of AIDS frightened the world. It is clear that even in the new millennium, disease poses a strong and constant threat to society and continues to be one of the greatest killers in the world, with approximately 15 million people per year dying of infectious diseases today. The rapid appearance of the COVID-19 pandemic, the largest epidemic in the 21st century, has brought the world to its knees. Even wealthy nations and statesmen have not been bypassed. This fear is certainly becoming more justified with the assessment of the World Health Organization that humanity is in grave and terrible danger. One thing is certain: the occurrence of an epidemic prompts us to think deeply about the future, which quickly becomes uncertain, all plans disrupted, and goals shifted and slowed.

Publication Type

Journal article.

<418>

Accession Number

20203242237

Author

Jemeršćić, L.

Title

Coronaviruses - viruses marking the 21st century.

Source

Veterinarska Stanica; 2020. 51(3):229-239. 47 ref.

Publisher

Hrvatski veterinarski institut, Centar za peradarstvo

Location of Publisher

Zagreb

Country of Publication

Croatia

Abstract

Coronaviruses are causative agents of respiratory, gastrointestinal and neurological infections in mammals and birds. The main characteristic of coronaviruses is a high mutation rate, resulting in possible changes in their pathogenicity, tissue tropism or in their host. Even though they have been known causes of disease for decades, they became interesting in the 21st century due to outbreaks of large epidemics in humans and causing serious economic losses in the animal production sector, primarily the pig industry. The outbreaks of the highest concern emerged in 2002 (Severe Acute Respiratory Syndrome - SARS) and in 2012 (Middle-East Respiratory Syndrome - MERS). Both diseases are of animal origin, and manifested with severe pneumonia in humans and a lethality of 11% and 36%, respectively. Today we are confronted with one of the largest epidemics in the history of humankind, the COVID-19 pandemic. It is caused by a variant of the SARS coronavirus and transmitted through person to person contact, with no known animal vector. Until the time of press of this article the infection has been detected in over 4.8 million people and has been the cause of over 320,000 deaths. In Croatia, due to protective measures imposed by the National Civil Protection Headquarters, COVID-19 is still within linear case growth. This review provides insight into known coronavirus infections in animals and humans and shows that novel coronaviruses have already marked the 21st century and likely changed the world, as we know it, forever.

Publication Type

Journal article.

<419>

Accession Number

20203238358

Author

Cao Peng; Wu SanLan; Wu TingTing; Deng YaHui; Zhang QiLin; Wang KaiPing; Zhang Yu

Title

The important role of polysaccharides from a traditional Chinese medicine-lung cleansing and detoxifying decoction against the COVID-19 pandemic.

Source

Carbohydrate Polymers; 2020. 240many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The new coronavirus pneumonia, named COVID-19 by the World Health Organization, has become a pandemic. It is highly pathogenic and reproduces quickly. There are currently no specific drugs to prevent the reproduction and spread of COVID-19. Some traditional Chinese medicines, especially the Lung Cleansing and Detoxifying Decoction (Qing Fei Pai Du Tang), have shown therapeutic effects on mild and ordinary COVID-19 patients. Polysaccharides are important ingredients in this decoction. This review summarizes the potential pharmacological activities of polysaccharides isolated by hot water extraction from Lung Cleansing and Detoxifying Decoction, which is consistent with its production method, to provide the theoretical basis for ongoing research on its application.

Publication Type

Journal article.

<420>

Accession Number

20203238333

Author

Li RunFeng; Hou YunLong; Huang JiCheng; Pan WeiQi; Ma QinHai; Shi YongXia; Li ChuFang; Zhao Jin; Jia ZhenHua; Jiang HaiMing; Zheng Kui; Huang ShuXiang; Dai Jun; Li XiaoBo; Hou XiaoTao; Wang Lin; Zhong NanShan; Yang ZiFeng

Title

Lianhuaqingwen exerts anti-viral and anti-inflammatory activity against novel coronavirus (SARS-CoV-2).

Source

Pharmacological Research; 2020. 15620 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

**Purpose:** Lianhuaqingwen (LH) as traditional Chinese medicine (TCM) formula has been used to treat influenza and exerted broad-spectrum antiviral effects on a series of influenza viruses and immune regulatory effects Ding et al. (2017). The goal of this study is to demonstrate the antiviral activity of LH against the novel SARS-CoV-2 virus and its potential effect in regulating host immune response. **Methods:** The antiviral activity of LH against SARS-CoV-2 was assessed in Vero E6 cells using CPE and plaque reduction assay. The effect of LH on virion morphology was visualized under transmission electron microscope. Pro-inflammatory cytokine expression levels upon SARS-CoV-2 infection in Huh-7 cells were measured by real-time quantitative PCR assays. **Results:** LH significantly inhibited SARS-CoV-2 replication in Vero E6 cells and markedly reduced pro-inflammatory cytokines (TNF- $\alpha$ , IL-6, CCL-2/MCP-1 and CXCL-10/IP-10) production at the mRNA levels. Furthermore, LH treatment resulted in abnormal particle morphology of virion in cells. **Conclusions:** LH significantly inhibits the SARS-COV-2 replication, affects virus morphology and exerts anti-inflammatory activity in vitro. These findings indicate that LH protects against the virus attack, making its use a novel strategy for controlling the COVID-19 disease.

Publication Type

Journal article.



<421>

Accession Number

20203235033

Author

Zou Yang; Zheng YiShan; Cao Jun

Title

Suggestions for standardizing the process of malaria diagnosis and treatment during the epidemic control of coronavirus disease(COVID-19). [Chinese]

Source

Chinese Journal of Parasitology and Parasitic Diseases; 2020. 38(1):1-4. 11 ref.

Publisher

National Institute of Parasitic Diseases, Chinese Center for Disease Control and Prevention

Location of Publisher

Shanghai

Country of Publication

China

Abstract

At the end of 2019, the epidemic of coronavirus disease 2019 (COVID-19) brought new challenges to the diagnosis and treatment of other diseases such as malaria. If malaria patients are misdiagnosed, the illness may become severe or even life-threatening. Furthermore, if improperly protected and handled against the epidemic, not only malaria patients may be infected with the novel coronavirus during the process seeking for medical care, but medical staff will also face potential high risks. Therefore, to provide reference for health care workers, this paper focuses on how to perform good practice for malaria diagnosis and treatment under the current COVID-19 epidemic, and provides recommendations for the standardized diagnosis and treatment process of malaria patients.

Publication Type

Journal article.

<422>

Accession Number

20203236243

Author

Chhabra, H. S.; Vaibhav Bagaraia; Swapnil Keny; Kalidindi, K. K. V.; Abhinandan Mallepally; Dhillon, M. S.; Rajesh Malhotra; Shanmuganathan Rajasekharan

Title

COVID-19: current knowledge and best practices for orthopaedic surgeons.

Source

Indian Journal of Orthopaedics; 2020. 54(4):411-425. 88 ref.

Publisher

Springer

Location of Publisher

New Delhi

Country of Publication

India

Abstract

Background: A mysterious cluster outbreak of pneumonia in Wuhan, China in December 2019 was traced to Severe Acute Respiratory Syndrome Coronavirus 2 and declared a Pandemic by WHO on 11th March 2020. The pandemic has spread rapidly causing widespread devastation globally. Purpose: This review provides a brief understanding of pathophysiology, clinical features, diagnosis and management of COVID-19 and highlights the current knowledge as well as best practices for orthopaedic surgeons. These are likely to change as knowledge and evidence is gained. Results: Orthopaedic surgeons, like other front-line workers, carry the risk of getting infected during their practice, which as such is already substantially affected. Implementation of infection prevention and control as well as other safety measures for health care workers assumes great importance. All patients/visitors and staff visiting the hospital should be screened. Conservative treatment should be the first line of treatment except for those requiring urgent/emergent care. During lockdown all elective surgeries are to be withheld. All attempts should be made to reduce hospital visits and telemedicine is to be encouraged. Inpatient management of COVID-19 patients requires approval from concerned authorities. All patients being admitted to the hospital in and around containment zones should be tested for COVID-19. There are

special considerations for anaesthesia with preference for regional anaesthesia. A separate Operation room with specific workflow should be dedicated for COVID-19 positive cases. Conclusions: Despite the magnitude of challenge, the pandemic offers significant lessons for the orthopaedic surgeon who should seek the opportunity within the adversity and use this time wisely to achieve his/her Ikigai.

#### Publication Type

Journal article.

<423>

#### Accession Number

20203232497

#### Author

Eirale, C.; Bisciotti, G.; Corsini, A.; Baudot, C.; Saillant, G.; Chalabi, H.

#### Title

Medical recommendations for home-confined footballers training during the COVID-19 pandemic: from evidence to practical application </medical-recommendations-for-home-confined-footballers-training-during-the-covid-19-pandemic from evidence to practical application.

#### Source

Biology of Sport; 2020. 37(2):203-207.

#### Publisher

Institute of Sport

#### Location of Publisher

Warsaw

#### Country of Publication

Poland

#### Abstract

In early 2020, the world is facing a global emergency called COVID-19. Many professional footballers around the world are home confined. The maintenance of physical capacity is a fundamental requirement for the athlete, so the training sessions must be adapted to this unique situation. Specific recommendations must be followed concerning the type of training, its intensity, the precautions that

have to be followed to avoid the possibility of contagion, and the restrictions in accordance with the presence of any symptoms. This article analyses the available scientific evidence in order to recommend a practical approach. Keywords: Football, soccer, coronavirus, training, illness.

Publication Type

Journal article.

<424>

Accession Number

20203232495

Author

Marshall, B.; Aileone, L.

Title

COVID-19 pandemic and rural generalism: the west coast's rural workforce solution.

Source

New Zealand Medical Journal; 2020. 133(1514):90-92. 9 ref.

Publisher

New Zealand Medical Association

Location of Publisher

Wellington

Country of Publication

New Zealand

Abstract

The current COVID-19 pandemic only strengthens the need to move to a more flexible workforce rurally, where clinicians can flex across services, maximising skill sets and ensuring the workforce is utilised effectively. This is something specialty workforces cannot do effectively, as they lack the training to deliver care in other areas. When the elective work is removed, as is happening within this COVID-19 environment, a 'specialist' workforce is often unable to respond to urgent service needs. The opportunity a crisis has provided to do better for patients cannot be squandered. This would see the coast develop a more resilient SMO workforce, while delivering care at a responsible price. In the long

term, this would see a combination of local and Christchurch-based specialists working collaboratively with a team of rural generalists to provide the right care for patients into the future.

Publication Type

Correspondence.

<425>

Accession Number

20203231738

Author

Ahonsi, B.

Title

A research agenda on the sexual and reproductive health dimensions of the COVID-19 pandemic in Africa.

Source

African Journal of Reproductive Health; 2020. 24(1):22-25. 12 ref.

Publisher

Women's Health and Action Research Centre

Location of Publisher

Benin City

Country of Publication

Nigeria

Abstract

In the absence of an effective therapy or vaccine and without pre-existing immunity, this commentary highlights several reasons to anticipate more severe adverse consequences of large outbreaks of COVID-19 in Africa including for the sexual and reproductive health of vulnerable women and young people. The high burden of communicable and non-communicable diseases like malaria, HIV, tuberculosis, Lassa fever and diabetes as well as weak and under-resourced health systems, high levels of poverty, poor housing, limited access to clean water and sanitation, inadequate transport and energy

infrastructure, and high population mobility would inevitably result in far more devastating economic, social and health fall-outs from the pandemic in Africa.

Publication Type

Journal article.

<426>

Accession Number

20203231729

Author

Poudel, P. B.; Poudel, M. R.; Aasish Gautam; Samiksha Phuyal; Tiwari, C. K.; Nisha Bashyal; Shila Bashyal

Title

COVID-19 and its global impact on food and agriculture.

Source

Journal of Biology and Today's World; 2020. 9(5)30 ref.

Publisher

Rega Al Buteen- Dr. Esmail Clinic

Location of Publisher

Dubai

Country of Publication

United Arab Emirates

Abstract

Disease outbreak and global pandemics have been the greatest threat for the sustainability of human existence. Mankind has witnessed many pandemics over the course of human history that killed millions of people and ravaged the global economy and politics. In the current context, the world is facing yet another pandemic as Corona virus disease of 2019 (COVID- 19). Realizing the gravity of situation, every country has undertaken special steps to fight against the pandemic mostly with non-pharmaceutical measures involving social distancing and self-isolation. In addition, restriction in travel and trade are done in majority of countries to limit the spread of the virus. All these combat against the pandemic has

vastly affected the major economic sectors such as Agriculture. Agriculture serves as the most important economic sector endorsing food security and human development. The review intends to go through every possible impact of global pandemic COVID -19 on Food and Agriculture across the globe. It is important to assess the effect of COVID-19 pandemic on Agricultural sector and Food as it primarily involves the sustainability of human life and secondarily involves the economy. The pandemic protocols and provisions interferes the supply chain of the market with impaired production and distribution accompanied with lack of labor and supply of inputs. This vastly affects the livestock, poultry, fishery as well as dairy production. The planting of spring crops like maize, sunflower, spring wheat, barley, canola and open field vegetable can't be operated amidst pandemic. Thus, the pandemic has seeded a serious impact on the food security due to distortion of the supply chain which is needed to be addressed quickly by the government.

Publication Type

Journal article.

<427>

Accession Number

20203232911

Author

Hall, R.; Toit, A. du; Ramantsima, K.; Mtero, F.; Gumede, N.; Hara, M.; Isaacs, M.; Monjane, B.; Yeni, S.

Title

Food in the time of coronavirus: why we should be very, very afraid.

Source

Policy Brief - PLAAS; 2020. (55):8 pp.

Publisher

Institute for Poverty, Land and Agrarian Studies (PLAAS)

Location of Publisher

Bellville

Country of Publication

South Africa

## Abstract

The social legitimacy of the 'COVID-19 lockdown', government's regulations imposed to contain the spread of the virus, is most likely to run aground unless an urgent plan can be made to ensure that everyone in the country has access to sufficient food. And it's not looking good. Based on interviews, statements by various organisations and our own experience, here is our summary of the already-evident impacts of the lockdown on poor people's access to food, and on the informal food economy - from small farmers to street vendors and spaza shops - that is so important in meeting people's daily food needs.

## Publication Type

Bulletin.

<428>

## Accession Number

20203228044

## Author

Valera, L.; Carrasco, M. A.; López, R.; Ramos, P.; Bernhardt, R. von; Bedregal, P.; Florenzano, A.; Pérez, I.; Olivares, P.; Vargas, I.; González, X.; López, P.; Durán, G.; Richards, C.; Castro Ricardo

## Title

Ethical guidelines for medical decision-making during COVID-19 pandemic in Chile. [Spanish]

## Source

Revista Médica de Chile; 2020. 148(3):393-398. 20 ref.

## Publisher

Sociedad Medica de Santiago

## Location of Publisher

Santiago

## Country of Publication

Chile

## Abstract



The catastrophic emergency experienced by many countries with the COVID-19 pandemic emphasized the importance of bioethics for decision-making, both at the public health (equitable and effective policies) and at the clinical level. At the clinical level, the issues are the fulfillment of medical care demand with adequate health care teams, infrastructure, and supplies, and to cover critical care demands that surpass the available resources. Therefore, ethically correct approaches are required for the allocation of life sustaining resources. There are recommendations for the allocating life support during disasters based on multiple considerations, including ethical ones. However, the ethical criteria of existing guidelines are variable. Ethical principles usually considered are saving the greatest number of lives, saving the greatest number of years of life and the principle of the life cycle or the goal to give each individual equal opportunity to live through the various phases of life. However, the centrality of the human being and the search for the common good should be considered. Knowledge of public perspectives and moral benchmarks on these issues is essential. A successful assignment effort will require everyone's trust and cooperation. Decision making should be planned and discussed in advance, since in-depth deliberation will be extremely complex during the disaster. Our goal is to help the health care teams to wisely allocate resources in shortage periods.

Publication Type

Journal article.

<429>

Accession Number

20203229256

Author

Wells, C. R.; Sah, P.; Moghadas, S. M.; Pandey, A.; Shoukat, A.; Wang YaNing; Wang Zheng; Meyers, L. A.; Singer, B. H.; Galvania, A. P.

Title

Impact of international travel and border control measures on the global spread of the novel 2019 coronavirus outbreak.

Source

Proceedings of the National Academy of Sciences of the United States of America; 2020. 117(13):7504-7509. 40 ref.

Publisher

National Academy of Sciences

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Location of Publisher

Washington DC

Country of Publication

USA

Abstract

The novel coronavirus outbreak (COVID-19) in mainland China has rapidly spread across the globe. Within 2 mo since the outbreak was first reported on December 31, 2019, a total of 566 Severe Acute Respiratory Syndrome (SARS CoV-2) cases have been confirmed in 26 other countries. Travel restrictions and border control measures have been enforced in China and other countries to limit the spread of the outbreak. We estimate the impact of these control measures and investigate the role of the airport travel network on the global spread of the COVID-19 outbreak. Our results show that the daily risk of exporting at least a single SARS CoV-2 case from mainland China via international travel exceeded 95% on January 13, 2020. We found that 779 cases (95% CI: 632 to 967) would have been exported by February 15, 2020 without any border or travel restrictions and that the travel lockdowns enforced by the Chinese government averted 70.5% (95% CI: 68.8 to 72.0%) of these cases. In addition, during the first three and a half weeks of implementation, the travel restrictions decreased the daily rate of exportation by 81.3% (95% CI: 80.5 to 82.1%), on average. At this early stage of the epidemic, reduction in the rate of exportation could delay the importation of cases into cities unaffected by the COVID-19 outbreak, buying time to coordinate an appropriate public health response.

Publication Type

Journal article.

<430>

Accession Number

20203225967

Title

Canadian Public Health Laboratory Network best practices for COVID-19.

Source

Canada Communicable Disease Report; 2020. 46(5):113-120. 7 ref.

Publisher

Canadian Medical Association

Location of Publisher

Ottawa

Country of Publication

Canada

Abstract

The ability to detect severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative agent of COVID-19, is a foundational component of Canada's containment and mitigation strategies. Laboratory confirmation of COVID-19 cases allows the appropriate clinical management and public health interventions. Whether the local goal is containment or mitigation will depend on local epidemiology of the pandemic. The Respiratory Virus Infections Working Group of the Canadian Public Health Laboratory Network has developed comprehensive Best Practice Guidelines for detection of SARS-CoV-2. Best practices for specimen collection, transportation, testing and biosafety are addressed from the perspective of Canadian public health laboratories to ensure a consistent approach across the country: 1. Population-based testing for COVID-19 should initially be carried out for surveillance 2. Nasopharyngeal swab is the specimen of choice for routine testing 3. Nucleic acid amplification tests (such as real-time reverse transcription polymerase chain reaction) are the method of choice for routine testing of SARS-CoV-2 4. The decentralization of nucleic acid amplification testing for COVID-19 to hospital or other high complexity medical laboratories should be promoted to increase test capacity and meet increased demands 5. In the early stages of the pandemic, positive (approximately 10-20) and negative (approximately 50) tests by a provincial laboratory require confirmation at the National Microbiology Laboratory 6. Co-circulation of other viral agents associated with influenza-like illnesses (e.g. influenza A and B and respiratory syncytial virus) should be monitored as capacity permits, as part of ongoing surveillance 7. Once validated, serological testing may be utilized for assessing the presence/absence of immune response to the SARS-CoV-2 at either the population or individual level for select indications, but is likely to be of limited utility in diagnosis of acute COVID-19 illness These recommendations will be updated as new information becomes available.

Publication Type

Journal article.

<431>

Accession Number

20203237210

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Author

D'Avolio, A.; Avataneo, V.; Manca, A.; Cusato, J.; Nicol&ograve;, A. de; Lucchini, R.; Keller, F.; Cant&ugrave;, M.

Title

25-Hydroxyvitamin D concentrations are lower in patients with positive PCR for SARS-CoV-2.

Source

Nutrients; 2020. 12(5)7 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes coronavirus disease 2019 (COVID-19), with a clinical outcome ranging from mild to severe, including death. To date, it is unclear why some patients develop severe symptoms. Many authors have suggested the involvement of vitamin D in reducing the risk of infections; thus, we retrospectively investigated the 25-hydroxyvitamin D (25(OH)D) concentrations in plasma obtained from a cohort of patients from Switzerland. In this cohort, significantly lower 25(OH)D levels ( $p = 0.004$ ) were found in PCR-positive for SARS-CoV-2 (median value 11.1 ng/mL) patients compared with negative patients (24.6 ng/mL); this was also confirmed by stratifying patients according to age >70 years. On the basis of this preliminary observation, vitamin D supplementation might be a useful measure to reduce the risk of infection. Randomized controlled trials and large population studies should be conducted to evaluate these recommendations and to confirm our preliminary observation.

Publication Type

Journal article.

<432>

Accession Number

20203232219

Author

Kaleab Baye

Title

COVID-19 Prevention Measures in Ethiopia.

Source

ESSP Working Paper - Ethiopia Strategy Support Program; 2020. (142):iii + 10 pp. 23 ref.

Publisher

International Food Policy Research Institute (IFPRI)

Location of Publisher

Washington D.C.

Country of Publication

USA

Abstract

Immediately after the first confirmed case of COVID-19 in Ethiopia in March 2020, the Government of Ethiopia took several public health measures to prevent increased levels of infection. These included closing all schools and restricting large gatherings and movements of people. Handwashing and social distancing were the main prevention measures that government has communicated to the general public through various media platforms. Using the latest round of the Ethiopian Demographic and Health Survey, COVID-19 relevant indicators related to household access to communication platforms; access to water, sanitation, and hygiene (WASH); and characteristics of the home environment were assessed. The analysis shows that a sizeable proportion of the rural population does not have access to the media platforms used to publicize COVID-19 prevention measures. Moreover, without aggressive interventions, current levels of access to water and soap are suboptimal to adopt the hand-washing recommendations, particularly in rural areas. The low proportion of households with electricity, refrigeration, or internet connection and the relatively high prevalence of partner violence suggest that implementing the stay and work from home measures will be challenging. Public health measures that slow down the transmission of the virus should be continued and efforts to prevent transmission to rural areas should be prioritized. Communication platforms and messaging will need to be adapted to different local realities to make any COVID-19 containment recommendations operational. WASH-related support should be ramped-up, and addressing barriers to staying at home, such as the risk of partner violence, should be considered. The efforts needed to end the current pandemic in Ethiopia, as well as similar pandemics in the future, illuminates the serious challenges related to WASH and to the inequalities between rural and urban areas that need urgent attention.

Publication Type

Bulletin.

<433>

Accession Number

20203236513

Author

Pan Feng; Ye TianHe; Sun Peng; Gui Shan; Liang Bo; Li LingLi; Zheng DanDan; Wang JiaZheng; Hesketh, R. L.; Yang Lian; Zheng ChuanSheng

Title

Time course of lung changes at chest CT during recovery from coronavirus disease 2019 (COVID-19).

Source

Radiology; 2020. 295(3):715-721. 17 ref.

Publisher

Radiological Society of North America Inc

Location of Publisher

Easton

Country of Publication

USA

Abstract

Background: Chest CT is used to assess the severity of lung involvement in coronavirus disease 2019 (COVID-19). Purpose: To determine the changes in chest CT findings associated with COVID-19 from initial diagnosis until patient recovery. Materials and Methods: This retrospective review included patients with real-time polymerase chain reaction-confirmed COVID-19 who presented between January 12, 2020, and February 6, 2020. Patients with severe respiratory distress and/or oxygen requirement at any time during the disease course were excluded. Repeat chest CT was performed at approximately 4-day intervals. Each of the five lung lobes was visually scored on a scale of 0 to 5, with 0 indicating no involvement and 5 indicating more than 75% involvement. The total CT score was determined as the sum of lung involvement, ranging from 0 (no involvement) to 25 (maximum involvement). Results: Twenty-one patients (six men and 15 women aged 25-63 years) with confirmed COVID-19 were evaluated. A total of 82 chest CT scans were obtained in these patients, with a mean interval (+/- standard deviation) of 4 days +/- 1 (range, 1-8 days). All patients were discharged after a mean

hospitalization period of 17 days +/- 4 (range, 11-26 days). Maximum lung involvement peaked at approximately 10 days (with a calculated total CT score of 6) from the onset of initial symptoms ( $R^2 = 0.25$ ,  $P < .001$ ). Based on quartiles of chest CT scans from day 0 to day 26 involvement, four stages of lung CT findings were defined. CT scans obtained in stage 1 (0-4 days) showed ground-glass opacities (18 of 24 scans [75%]), with a mean total CT score of 2 +/- 2; scans obtained in stage 2 (5-8 days) showed an increase in both the crazy-paving pattern (nine of 17 scans [53%]) and total CT score (mean, 6 +/- 4;  $P = .002$ ); scans obtained in stage 3 (9-13 days) showed consolidation (19 of 21 scans [91%]) and a peak in the total CT score (mean, 7 +/- 4); and scans obtained in stage 4 ( $\geq 14$  days) showed gradual resolution of consolidation (15 of 20 scans [75%]) and a decrease in the total CT score (mean, 6 +/- 4) without crazy-paving pattern. Conclusion: In patients recovering from coronavirus disease 2019 (without severe respiratory distress during the disease course), lung abnormalities on chest CT scans showed greatest severity approximately 10 days after initial onset of symptoms.

Publication Type

Journal article.

<434>

Accession Number

20203234687

Author

Lotfi, B.; Farshid, S.; Dadashzadeh, N.; Valizadeh, R.; Rahimi, M. M.

Title

Is Coronavirus disease 2019 (COVID-19) associated with renal involvement? A review of century infection.

Source

Jundishapur Journal of Microbiology; 2020. 13(4)many ref.

Publisher

Ahvaz Jundishapur University of Medical Sciences

Location of Publisher

Ahvaz

Country of Publication

Iran

## Abstract

**Context:** The novel coronavirus disease (COVID-19) is one of the most threatening pandemics in history involving multiple organs, including the kidney. This study aimed to review the association of COVID-19 with renal involvement. **Evidence Acquisition:** International databases, including the Web of Science, PubMed, Scopus, and Google Scholar, were searched for articles by April 1, 2020. **Keywords** were COVID-19, coronavirus disease, SARS-CoV-2, kidney, renal function, acute kidney injury, and acute renal failure, or a combination of them in title/abstracts. **Results:** There were a few studies concerning COVID-19 and renal failure due to the short time elapsed from the epidemic onset. The results showed that hematuria and proteinuria were common in patients with COVID-19. **Conclusions:** Patients with elevated creatinine are at risk of mortality two times more than patients with normal creatinine. Also, elevated BUN, proteinuria, and hematuria can increase the risk of mortality in patients with COVID-19 up to four times compared to patients with normal tests. Therefore, it is important to check creatinine, BUN, proteinuria, and hematuria in primary assessments. Generally, all routine measures for people affected with COVID-19 can be done for COVID-19 patients with acute renal failure until the current knowledge is changed. Chloroquine phosphate may improve the chance of treatment.

## Publication Type

Journal article.

<435>

## Accession Number

20203234683

## Title

Kenya economic update, April 2020: turbulent times for growth in Kenya: policy options during the COVID-19 pandemic.

## Source

Turbulent times for growth in Kenya: policy options during the COVID-19 pandemic; 2020. :ix + 52 pp.

## Publisher

The World Bank

## Location of Publisher

Washington



Country of Publication

USA

Publication Type

Miscellaneous.

<436>

Accession Number

20203231599

Author

Surender Deora; Pankaj Bhardwaj; Garg, M. K.

Title

COVID-19 pandemic: clinical management protocols for cardiac disease patients at teaching institute in Western Rajasthan.

Source

Journal of Family Medicine and Primary Care; 2020. 9(5):2186-2187. 5 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The world is facing the new pandemic COVID-19 caused by a novel coronavirus SARS-CoV-2. The demography and socio-economic condition are highly varied in different parts of the world. India also has braced itself to fight with this novel threat. Patients with COVID-19 may have primary cardiac involvement or may have associated cardiac disease. Therefore, the institution needs a protocol in managing cardiac patients during this pandemic.

Publication Type

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Journal article.

<437>

Accession Number

20203231595

Author

Pugazhenthan Thangaraju; Gurunthalingam, M. P.; Shobanbabu Varthya; Sajitha Venkatesan; Eswaran Thangaraju

Title

COVID-19: older drugs for a novel disease-chloroquine, hydroxychloroquine, and possible pentoxifylline-set to start the second innings?

Source

Journal of Family Medicine and Primary Care; 2020. 9(5):2172-2175. 28 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Currently no drug is approved for the prophylaxis and management of COVID 19. Lots of activities on vaccine and trials with drugs are underway. Some evidence have shown positive results using older established drug in the management of severe cases. We are also of same view and opinion to adopt some emergency measure by pharmacological intervention till a newer drug available in the market.

Publication Type

Journal article.

<438>

Accession Number

20203234662

Author

Andr&eacute;e, B. P. J.

Title

Incidence of COVID-19 and connections with air pollution exposure evidence from the Netherlands.

Source

Incidence of COVID-19 and connections with air pollution exposure : evidence from the Netherlands; 2020. :30 pp. 36 ref.

Publisher

The World Bank

Location of Publisher

Washington

Country of Publication

USA

Publication Type

Miscellaneous.

<439>

Accession Number

20203230803

Author

Enwemeka, C. S.; Bumah, V. V.; Masson-Meyers, D. S.

Title

Light as a potential treatment for pandemic coronavirus infections: a perspective.

Source

Journal of Photochemistry and Photobiology. B, Biology; 2020. 20798 ref.

Publisher

Elsevier Science S.A.

Location of Publisher

Lausanne

Country of Publication

Switzerland

Abstract

The recent outbreak of COVID-19, which continues to ravage communities with high death tolls and untold psychosocial and catastrophic economic consequences, is a vivid reminder of nature's capacity to defy contemporary healthcare. The pandemic calls for rapid mobilization of every potential clinical tool, including phototherapy—one of the most effective treatments used to reduce the impact of the 1918 "Spanish influenza" pandemic. This paper cites several studies showing that phototherapy has immense potential to reduce the impact of coronavirus diseases, and offers suggested ways that the healthcare industry can integrate modern light technologies in the fight against COVID-19 and other infections. The evidence shows that violet/blue (400-470 nm) light is antimicrobial against numerous bacteria, and that it accounts for Niels Ryberg Finsen's Nobel-winning treatment of tuberculosis. Further evidence shows that blue light inactivates several viruses, including the common flu coronavirus, and that in experimental animals, red and near infrared light reduce respiratory disorders, similar to those complications associated with coronavirus infection. Moreover, in patients, red light has been shown to alleviate chronic obstructive lung disease and bronchial asthma. These findings call for urgent efforts to further explore the clinical value of light, and not wait for another pandemic to serve as a reminder. The ubiquity of inexpensive light emitting lasers and light emitting diodes (LEDs), makes it relatively easy to develop safe low-cost light-based devices with the potential to reduce infections, sanitize equipment, hospital facilities, emergency care vehicles, homes, and the general environment as pilot studies have shown.

Publication Type

Journal article.

<440>

Accession Number

20203227120

Author

Ventura, D. de F. L.; Ribeiro, H.; Giulio, G. M. di; Jaime, P. C.; Nunes, J.; B&ocute;gus, C. M.; Antunes, J. L. F.; Waldman, E. A.

Title

Challenges of the COVID-19 pandemic: for a Brazilian research agenda in global health and sustainability. (Thematic Section: Covid-19 - public health contributions.)

Source

Cadernos de SaAde PAblica; 2020. 36(4)20 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

The objective of the article were to outline the challenges in the public health research agenda in the prevention and control of the COVID-19 pandemic in Brazil.

Publication Type

Journal article.

<441>

Accession Number

20203227119

Author

Oliveira, T. C.; Abranches, M. V.; Lana, R. M.

Title

Food (in)security in Brazil in the context of the SARS-CoV-2 pandemic. (Thematic Section: Covid-19 - public health contributions.)

Source

Cadernos de SaAde PAblica; 2020. 36(4)29 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

In Brazil, efforts in this initial stage of the epidemic have focused on confronting SARS-CoV-2, especially avoiding its spread while allowing healthcare for serious cases. However, another emerging side of the epidemic involves food security. Italy, Spain, and Portugal, already under quarantine, have developed initiatives to avoid crowding that have impacted the food chain. In these countries, most restaurants and bars are closed, and supermarkets have adopted rules for access and purchase of food products in order to avoid shortages. Although Brazil is experiencing the pandemic's initial effects, the discussion on the country's food security situation and its interfaces is of the utmost urgency, based on what has already happened in Europe. The food industry is facing numerous uncertainties, with limited orientation on food production, distribution, marketing, or home preparation of meals.

Publication Type

Journal article.

<442>

Accession Number

20203228379

Author

Saba Sohail

Title

Rational and practical use of imaging in COVID-19 pneumonia. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S130-S133. 10 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

The severe form of the COVID-19 pandemic caused by the SARS-CoV-2 virus, has largely manifested as a predominant respiratory illness causing severe pneumonia characterized by bilateral, subpleural ground glass haze, progressing to consolidation, and fibrosis on imaging. There is some discrepancy between the governmental guidelines, professional Societies and Radiology and Respiratory Medicine specialists with divided opinions between the use of the chest X-rays and CT scan, and whether the use be screening or diagnostic. So far, the most balanced recommendations have been proposed by the Fleischner Society, which are endorsed by the Radiological Society of Pakistan as well. This writeup describes the approach for a rational use of imaging to the best advantage in the current situation according to local resources, and restricting the spread of infection. The most practical compromise for Pakistan appears to be the use of portable digital radiography equipment, and point-of- care ultrasound; with CT scan reserved for clinical situations not explained by the above two modalities, or demanding disease stratification.

Publication Type

Journal article.

<443>

Accession Number

20203228376

Author

Faseeha Aman; Sadia Masood

Title

How nutrition can help to fight against COVID-19 pandemic. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S121-S123. 10 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Currently Covid-19 pandemic is a leading challenge across the globe. It is mandatory to attain and maintain good nutritional status to fight against virus. Nutritional status of individual is affected by several factors such as age, sex, health status, life style and medications. Nutritional status of individuals has been used as resilience towards destabilization during this COVID-19 pandemic. Optimal nutrition and dietary nutrient intake impact the immune system, therefore the only sustainable way to survive in current context is to strengthen the immune system. There is no evidence found that supplement can cure the immune system except Vit C, which is one of the best way to improve immune system. A proper diet can ensure that the body is in proper state to defeat the virus. However along with the dietary management guidelines the food safety management and good food practices is compulsory. This article explores the importance of nutrition to boost immunity and gives some professional and authentic dietary guidelines about nutrition and food safety to withstand COVID-19.

Publication Type

Journal article.



<444>

Accession Number

20203228375

Author

Saima Salman; Saleem, S. G.; Adeel Khatri; Imran Jamal; Quratulain Maroof; Ashar Alam

Title

Inter-hospital communication and transfer practices during COVID-19 pandemic in Karachi, Pakistan. A brief overview. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S118-S120. 10 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Objective: To discuss the referral mechanisms established for safe and expeditious inter-facility transfer of COVID 19 positive patients to ensure their referrals through establishing proper communication channels. Methods: Mobile phone and WhatsApp based groups, administrated by The Indus Hospital were established in April 2020. Through detailed reports and frequent communication, factors like bed and ventilator availability across these facilities are shared. Weekly reports through zoom meetings updating the key stake holders, discussion of problems faced and planning for the week ahead are also done. Result: The establishment of these groups has been successful in ensuring referral to and from The Indus Hospital to various healthcare facilities across Karachi using appropriate ambulance services. Conclusion: The development of referral mechanisms is the need of the day that has been highlighted through the COVID 19 pandemic. It is our hope that these mechanisms are sustained after the pandemic and result in improvement in patient outcome through proper referrals.

Publication Type

Journal article.

<445>

Accession Number

20203228373

Author

Bukhari, M. H.; Khalid Mahmood; Zahra, S. A.

Title

Over view for the truth of COVID -19 pandemic: a guide for the Pathologists, Health care workers and community. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S111-S114. 16 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Pakistan is in the grip of COVID-19, due to severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) since 26 February 2020, and the number of infected people and mortality is rising gradually. The health workers, doctors, pathologists and laboratory staff are front line fighters who are facing the risk. Few things are important for public and health workers, human behavior is at the core of preparedness and response i.e, personal protective measures, (handwashing, face masks, respiratory etiquette, surface and objects cleansing), social distancing and travel measures because the virus spreads through the respiratory channels, eyes, nose and mouth. While working in the Pathology labs, use the personal protection equipment (PPE), during the work in the duty. Avoiding the over duties and long shifts. It is good to keep the immune system healthy by taking a healthy balanced diet, vitamin supplements, and a night of proper sleep. It is also important to avoid taking food during duties and avoid making close contact without wearing safety dress.

Publication Type

Journal article.

<446>

Accession Number

20203228370

Author

Saqib Ali; Sara Noreen; Imran Farooq; Amr Bugshan; Fahim Vohra

Title

Risk assessment of healthcare workers at the frontline against COVID-19: risk of contracting COVID-19 among healthcare workers. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S99-S103. 28 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

The novel coronavirus disease 2019 (COVID-19) is a global pandemic. Healthcare workers (HCWs) are on the frontline of treating patients infected with COVID-19. However, data related to its infection rate among HCWs are limited. The aim was to present evidence associated with the number of HCWs being infected with COVID-19 from most viral affected countries (Italy, China, United States, Spain, and France). Furthermore, we looked into the reasons for HCWs COVID 19 infections and strategies to overcome this problem. Early available evidence suggested that HCWs are being increasingly infected with the novel infection ranging from 15% to 18% and in some cases up to 20% of the infected population. Major factors for infection among HCWs include lack of understanding of the disease, inadequate use and availability of Personal Protective Equipment (PPE), uncertain diagnostic criteria, unavailability of diagnostic tests and psychological stress. Therefore the protection of HCWs by authorities should be prioritized through education and training, the readiness of staff, incentives, availability of PPEs, and psychological support.

Publication Type

Journal article.

<447>

Accession Number

20203228369

Author

Hashmi, A. M.; Saleem, H. A.

Title

New horizons: COVID-19 and the burden of Neuropsychiatric illness in Pakistan. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S95-S98. 23 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

This manuscript reviews the current state of knowledge about the burden of mental illness and assesses the impact of COVID-19 illness on mental health in Pakistan. For this we analyzed secondary data obtained from the Institute of Health Metrics and Evaluation. The Global Burden of Disease (GBD) study draws from a wide range of data sources to quantify global and regional effects of a disease. We also did a literature search on the effects of COVID-19 illness on mental health and the psychosocial effects of COVID-19 and other Corona virus related illnesses such as SARS-CoV and MERS-CoV. Data from the studies obtained was utilized to extrapolate the anticipated effects of COVID-19 illness on healthcare workers, COVID-19 patients and the general public in Pakistan. Mental illness poses a significant challenge to Pakistan's under resourced health care system. COVID-19 has the potential to strain Pakistan's healthcare system to the breaking point. So far, the general morbidity from COVID-19 illness in Pakistan has been low compared to other countries but this could change in the coming weeks and months. Hidden within this crisis are also some opportunities for both healthcare and education.

Publication Type

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<448>

Accession Number

20203228367

Author

Rubina Hakeem; Sheikh, M. A.

Title

Beyond transmission: dire need for integration of nutrition interventions in COVID-19 pandemic-response strategies in developing countries like Pakistan. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S85-S89. 26 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Synergistic associations between infection and nutrition are well known. Impact of nutrition interventions on the outcomes have been scientifically assessed and reported. The role of nutrition in limiting the infection related morbidity and mortality does not appear to be a debatable question but nutrition interventions do not appear to be an essential part of current COVID-19 management strategies. Given the nature of pandemic and lack of organism-specific evidence, variability in nutrition interventions and lack of nutrition interventions is not unexpected. However, delay in realization of the crucial need of nutrition interventions to limit the immediate and long term outcomes at personal and community level may aggravate health related issues that can have long term impact on quality of life and economy. Due to existing undernutrition and lack of nutrition related awareness and competence, need for timely and appropriate interventions is much more critical for developing countries. This manuscript highlights the need and feasibility of various nutrition interventions to assure optimum

quality of life during and after COVID-19 pandemic. Available evidence provides enough guidance for nutrition interventions that are safe and promise to accrue various degrees of benefits with almost no likelihood of harm. Nutrition interventions suggested by author are: (1) population level efforts for promoting better use of existing resources; (2) quicker augmentation of nutrition status of high risk people and non-hospitalized cases by use of supplement and individualized guidance and (3) nutritional support of sever case by timely and adequate enteral and parenteral feeding.

Publication Type

Journal article.

<449>

Accession Number

20203228363

Author

Muhammad Saleem; Saima Dastgeer; Durrani, A. K.; Saad, A. A.; Zubair Manzoor; Hussain, H. N.

Title

Self-control mediates the relationship between psychosocial strengths and perceived severity of COVID-19 among frontline healthcare professionals of Pakistan: a single center experience. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S62-S66. 22 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Objective: To examine the relationship between psychosocial strengths (resilience, self-efficacy beliefs and social support) and perceived severity of COVID-19 and also to gauge the mediating role of self-

control among frontline health care professionals of Pakistan. Methods: A cross-sectional research design was utilized from March to April 2020 from one medical teaching hospital of South Punjab. As it was a single center experience so all the doctors were approached and asked to participate in this research. In total, 284 doctors (out of 300 approx.) completed online survey. The data were collected through online google forms consisting of self-report measures i.e. Brief Resilience Scale, Short General Self Efficacy Scale, Brief Scale for Social Support, Risk Behavior Diagnostic Scale and Brief Self-Control Scale. Results: The results were analyzed by using SmartPLS (3.0), direct effect of psychosocial strengths on perceived severity of COVID-19 and indirect effect of self-control were assessed through path coefficients, t-values and r-square values. The results confirmed that there was significant negative relationship between psychosocial strengths and perceived severity of COVID-19 (beta = -0.854, t =14.279) with 72% variance in perceived severity due to psychosocial strengths. Further, the results also suggest that self-control proved significant mediator between psychosocial strengths and perceived severity (beta = -0.604, t = 11.004, variance in perceived severity is 74%). Conclusion: In the time of pandemic, medical professionals are working as frontline force and can have several uncertainties regarding the risk associated with outbreak of COVID-19. This study concludes psychosocial strengths can play a significant role in subsiding the risk associated with severity of disease. Whereas, self-control can significantly contribute to buffer the negative influence of COVID-19 among frontline medical professionals. In line with findings of this study, there is a dire need to initiate psychotherapeutic studies for medical professionals to boost up their psychosocial strengths that would make them resilient against COVID-19.

#### Publication Type

Journal article.

<450>

#### Accession Number

20203228362

#### Author

Sahar Abbasi; Tahera Ayoob; Abdul Malik; Memon, S. I.

#### Title

Perceptions of students regarding E-learning during Covid-19 at a private medical college. (COVID-19 supplement 2020 special issue.)

#### Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S57-S61. 28 ref.

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[www.rcvsknowledge.org](http://www.rcvsknowledge.org)

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Objective: The purpose of this study was to determine the perceptions of students towards e-learning during the lock down. Methods:A descriptive cross-sectional study was conducted at Liaquat College of Medicine and Dentistry. MBBS and BDS students of all levels participated in the study with a sample size calculated as 377. A self-administered questionnaire was developed. After validation from the Medical Education Experts, pilot test was run on 30 participants before the administration of the questionnaire. The questionnaire was emailed to the participants for data collection. Reliability of the questionnaire was determined. Independent T-test was applied for determining the perceptions of students towards e-learning. Frequencies and percentages were also computed for demographics. Results: Total 382 responses were received. 137 males and 245 females participated in the study. 0.851 was calculated as Cronbach's alpha of the questionnaire. Overall, 77% students have negative perceptions towards e-learning. 76% of the students use mobile device for their e-learning. Conclusion: Students did not prefer e-teaching over face-to-face teaching during the lock down situation. Administration and faculty members should take necessary measures for improving e-teaching for better learning during lock down.

Publication Type

Journal article.

<451>

Accession Number

20203228360

Author

Meo, S. A.; Abukhalaf, A. A.; Alomar, A. A.; Kamran Sattar; Klonoff, D. C.

Title



COVID-19 pandemic: impact of quarantine on medical students' mental well being and learning behaviors. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S43-S48. 18 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

**Background and Objectives:** The novel coronavirus COVID-19 pandemic causes great public health and socioeconomic harms. Worldwide many countries implemented quarantine policies to minimize the spread of this highly contagious disease. The present study aim was to investigate the impact of quarantine on the medical students' mental wellbeing and learning behaviors. **Methods:** In this descriptive study, we used a questionnaire with a Five-Point Likert Scale to collect the information. The questionnaire was distributed among 625 medical students through their emails with a response rate of 530 (84.8%), majority 294 (55.47%) being female. The survey questionnaire consisted of total 20 items; 12 items were related to psychological wellbeing and stress-allied queries and 08 items were about learning behaviors. **Results:** The findings encompass two important characteristics related to quarantine, psychological wellbeing, and learning behaviors. A combined cohort of 234 medical students, either female or male, (which was 44.1% of the total responders) showed a sense of being emotionally detached from family, friends and fellow students, 125/530 (23.5%) medical students felt disheartened. Both female and male medical students showed a marked decrease in their overall work performance. Moreover, 56.2% of the total students (61.5% of the females and 49.5% of the males) felt a decrease in the time they spent studying. **Conclusions:** Both female and male medical students have identified that quarantine has caused them to feel emotionally detached from family, fellows, and friends and decrease their overall work performance and study period. The findings also show that one-fourth of the medical students who participated in this study felt disheartened during the quarantine period. The long-term quarantine due to COVID-19 pandemic may causes further worsening in the psychological and learning behaviors of these medical students.

Publication Type

Journal article.

<452>

Accession Number

20203228358

Author

Azal Ikhtlaq; Hunniya Bint-E-Riaz; Imtiaz Bashir; Farhat Ijaz

Title

Awareness and attitude of undergraduate medical students towards 2019-novel Corona virus. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S32-S36. 19 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Objective: To assess the knowledge, awareness and attitudes of medical students towards recently discovered coronavirus disease-19 (COVID-19). Methods: This was a cross sectional study conducted on medical students in CMH Lahore Medical College, (LMC), Institute of Dentistry (IOD). A questionnaire containing demographic information, 14 knowledge and eight attitude items was completed by 384 participants. Results: Overall, > 90% people were aware about the etiology, mode of transmission and possible symptoms; however, very few of them knew about the in-depth details. Knowledge score revealed that 80% of participants had sufficient knowledge about coronavirus. MBBS students and nursing Students had significantly better knowledge in comparison with other students. In terms of attitude, > 80% of students showed positive attitudes among which the nursing students were dominant. Conclusion: The medical students of CMH LMC showed a satisfactory level of awareness and attitudes towards COVID-19 with an obvious difference with regard to disciplines. More educational efforts with periodic educational interventions are still needed about the current pandemic.

Publication Type

Journal article.

<453>

Accession Number

20203228357

Author

Khadijah Mukhtar; Kainat Javed; Mahwish Arooj; Ahsan Sethi

Title

Advantages, limitations and recommendations for online learning during COVID-19 pandemic era. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S27-S31.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Objective: During COVID-19 pandemic, the institutions in Pakistan have started online learning. This study explores the perception of teachers and students regarding its advantages, limitations and recommendations. Methods: This qualitative case study was conducted from March to April 2020. Using maximum variation sampling, 12 faculty members and 12 students from University College of Medicine and University College of Dentistry, Lahore were invited to participate. Four focus group interviews, two each with the faculty and students of medicine and dentistry were carried out. Data were transcribed verbatim and thematically analyzed using Atlas Ti. Results: The advantages included remote learning, comfort, accessibility, while the limitations involved inefficiency and difficulty in maintaining academic integrity. The recommendations were to train faculty on using online modalities and developing lesson plan with reduced cognitive load and increased interactivities. Conclusion: The current study supports the use of online learning in medical and dental institutes, considering its various advantages. Online learning modalities encourage student-centered learning and they are easily manageable during this lockdown situation.

Publication Type

<454>

Accession Number

20203228355

Author

Ul-Haq, M. I.; Faraz Shafiq; Haris Sheikh

Title

Potential barriers amongst Health Care Professionals (HCPs) of Pakistan in managing COVID 19 patients. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S17-S21. 10 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

**Objectives:** To evaluate basic knowledge of Health Care Professionals (HCPs) of Pakistan in managing COVID 19 patients. It includes information regarding infection control measures, administrative and professional support. This was followed by evaluation of psychological factor that can act as a barrier in effective management of these patients. **Methods:** The survey was conducted on line using Google Form. After approval from hospital ethical committee survey link was disseminated to HCPs using social media. **Results:** Four hundred fifteen HCPs were participated. Most of them were younger than 30 years and majority of them were postgraduate trainees. Results showed gaps in the knowledge about basic infection control measure like donning/doffing and understanding about high-risk procedures. On job training, professional and administrative support is compromising. Many of HCPs are anxious nowadays, having symptoms related to burn out with logical reasons behind. Even with all those hurdles they are committed and ready to volunteer themselves. **Conclusion:** The HCPs of Pakistan needs urgent attention

for providing them Formal training regarding infection control measure. Administrative and professional support is required from institutions and scientific societies. Online teaching modules and webinar is a suitable option. The symptoms of burn out are significant and would increase with passage of time. This needs to be supported by occupational health committees.

Publication Type

Journal article.

<455>

Accession Number

20203228353

Author

Sethi, B. A.; Ahsan Sethi; Sadaf Ali; Aamir, H. S.

Title

Impact of Coronavirus disease (COVID-19) pandemic on health professionals. (COVID-19 supplement 2020 special issue.)

Source

Pakistan Journal of Medical Sciences; 2020. 36(COVID19-S4):S6-S11. 18 ref.

Publisher

Professional Medical Publications

Location of Publisher

Karachi

Country of Publication

Pakistan

Abstract

Objective: Recognizing the huge potential ramifications of COVID-19 pandemic, this study explores its impact on health professionals personally and professionally along with the associated challenges.

Methods: A descriptive cross-sectional qualitative survey was conducted from March-April 2020.

Participants included health professionals from various disciplines in both public and private-sector institutions of Pakistan. The sample size was not predetermined, and an iterative approach of

simultaneous data collection and analysis was taken until data and time saturation were reached. Thematic analysis of the qualitative data was carried out by two analysts. Results: Two hundred and Ninety health professionals responded. They reported an impact on their mental, physical and social well-being. The clinicians mentioned facing an unprecedented workload in overstretched health facilities, while those in academia become engaged with planning/providing emergency remote teaching for the students affecting work-life balance. Some challenges associated with work-from-home and in the hospitals were identified. Conclusion: During COVID-19, the health professionals are anxious, overworked and financially unstable while planning, creating and caring for others and their families. We need to support them to do their jobs, be safe and stay alive. Future research should explore the fears and coping strategies of health professionals during pandemics.

#### Publication Type

Journal article.

<456>

#### Accession Number

20203226433

#### Author

Juurlink, D. N.

#### Title

Safety considerations with chloroquine, hydroxychloroquine and azithromycin in the management of SARS-CoV-2 infection.

#### Source

Canadian Medical Association Journal; 2020. 192(17):E450-E453. 56 ref.

#### Publisher

Canadian Medical Association

#### Location of Publisher

Ottawa

#### Country of Publication

Canada

## Abstract

Chloroquine and hydroxychloroquine are generally well tolerated, but clinicians and patients should be aware of serious adverse events that can occur, even during short courses of treatment. Potential risks of treatment include prolongation of the QTc interval (especially in patients with preexisting cardiac disease or if coprescribed with azithromycin), hypoglycemia, neuropsychiatric effects, drug-drug interactions and idiosyncratic hypersensitivity reactions. Genetic variability in metabolism of these drugs is considerable and influences their safety and effectiveness. Chloroquine and hydroxychloroquine are extremely toxic in overdose and as stronger evidence awaits on the role, if any, of these drugs in the treatment or prevention of coronavirus disease 2019, uncommon but serious harms of treatment can be mitigated by careful patient selection and monitoring.

## Publication Type

Journal article.

<457>

## Accession Number

20203228847

## Author

Worstell, J.

## Title

Ecological resilience of food systems in response to the COVID-19 crisis.

## Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(3):23-30. 41 ref.

## Publisher

New Leaf Associates

## Location of Publisher

Ithaca

## Country of Publication

USA

## Abstract

Resilience of food systems is being tested by the COVID-19 disruption. As with any severe disruption, collapse of some systems, innovation in others, and total reorganization of some will occur. Direct delivery of food, online farmers markets, community supported agriculture operations (CSAs), backyard food production, expansion of seed producers and plant nurseries, and decrease in restaurant share of the food dollar with increased home cooking are some trends that may be lasting. These trends can be seen as complex adaptive systems following the adaptive cycles of all open systems. The crisis provides an opportunity to examine a model of food system resilience (CLIMATED) and apply it more broadly.

Publication Type

Journal article.

<458>

Accession Number

20203228846

Author

Zurayk, R.

Title

Pandemic and food security: a view from the Global South.

Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(3):17-21. 14 ref.

Publisher

New Leaf Associates

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

This paper offers a view of COVID-19's specific effects on the availability, access, utilization, and stability of food in the developing world. It is indicated that the COVID-19 pandemic has amplified food



security issues that have been endemic in the vast majority of the countries of the South in modern times.

Publication Type

Journal article.

<459>

Accession Number

20203228845

Author

Schmidt, C.; Goetz, S. J.; Rocker, S. J.; Tian Zheng

Title

Google searches reveal changing consumer food sourcing in the COVID-19 pandemic.

Source

Journal of Agriculture, Food Systems and Community Development; 2020. 9(3):9-16. 19 ref.

Publisher

New Leaf Associates

Location of Publisher

Ithaca

Country of Publication

USA

Abstract

Based on observing Google search trends, this paper examines how the interest and preoccupations of US food consumers has changed since the advent of the COVID-19 pandemic. Three fairly distinct periods in terms of food-related searches are observed. First, a concern with food storage emerged starting the week of February 16-22 and continued until mid-April, coupled with some evidence about concerns over food shortages (starting March 1-7). Second, starting the week of March 1-7, a growing interest in more local, direct options for acquiring food emerged. Third, starting the week of March 8-14 and spiking a few weeks later (except for Grubhub), interest in take-out food and home delivery grew, as the stay-at-home orders became more widespread. This was also the week in which searches for

food banks and pantries started to take off, just preceding the week of March 22, which saw record increases in initial jobless claims. It is also revealed that demand for breweries and wineries has dramatically dropped.

Publication Type

Journal article.

<460>

Accession Number

20203207170

Author

Plais, L.; Richier, Q.

Title

Covid-19: clinical, biological and radiological characteristics in adults, infants and pregnant women. an up-to-date review at the heart of the pandemic. [French]

Source

Revue de Médecine Interne; 2020. 41(5):308-318. 95 ref.

Publisher

Elsevier Masson SAS

Location of Publisher

Issy-les-Moulineaux

Country of Publication

France

Abstract

The spread of the new coronavirus SARS-CoV-2, discovered in China in January 2020, led to a pandemic as early as March 2020, forcing every health care system in the affected countries to adapt quickly. In order to better address this major health crisis, which has given rise to numerous scientific publications, we have synthesized the main original clinical studies to facilitate the day-to-day management of patients with COVID-19. We detail the early signs and progression of the disease as well as the different clinical forms, including extra-pulmonary, as known at the beginning of this

pandemic. We focus on clinical, biological and CT markers predictive of severity or mortality. Finally, we discuss the impact of SARS-CoV-2 infection in populations suspected to be at high risk of severe forms.

Publication Type

Journal article.

<461>

Accession Number

20203235196

Author

Liu Qian; Yang BingXiang

Title

The experiences of health-care providers during the COVID-19 crisis in China: A qualitative study.

Source

Lancet Global Health; 2020. 8(6):e790-e798. 21 ref.

Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: In the early stages of the outbreak of coronavirus disease 2019 (COVID-19) in Hubei, China, the local health-care system was overwhelmed. Physicians and nurses who had no infectious disease expertise were recruited to provide care to patients with COVID-19. To our knowledge, no studies on their experiences of combating COVID-19 have been published. We aimed to describe the experiences of these health-care providers in the early stages of the outbreak. Methods We did a qualitative study using an empirical phenomenological approach. Nurses and physicians were recruited from five COVID-19-designated hospitals in Hubei province using purposive and snowball sampling. They participated in semi-structured, in-depth interviews by telephone from Feb 10 to Feb 15, 2020.

Interviews were transcribed verbatim and analysed using Haase's adaptation of Colaizzi's phenomenological method. Findings We recruited nine nurses and four physicians. Three theme categories emerged from data analysis. The first was "being fully responsible for patients' wellbeing- 'this is my duty'". Health-care providers volunteered and tried their best to provide care for patients. Nurses had a crucial role in providing intensive care and assisting with activities of daily living. The second category was "challenges of working on COVID-19 wards". Health-care providers were challenged by working in a totally new context, exhaustion due to heavy workloads and protective gear, the fear of becoming infected and infecting others, feeling powerless to handle patients' conditions, and managing relationships in this stressful situation. The third category was "resilience amid challenges". Health-care providers identified many sources of social support and used self-management strategies to cope with the situation. They also achieved transcendence from this unique experience. Interpretation The intensive work drained health-care providers physically and emotionally. Health-care providers showed their resilience and the spirit of professional dedication to overcome difficulties. Comprehensive support should be provided to safeguard the well being of health-care providers. Regular and intensive training for all health-care providers is necessary to promote preparedness and efficacy in crisis management.

#### Publication Type

Journal article.

<462>

#### Accession Number

20203235195

#### Author

Powell-Jackson, T.; King, J. J. C.; Makungu, C.; Spieker, N.; Woodd, S.; Risha, P.; Goodman, C.

#### Title

Infection prevention and control compliance in Tanzanian outpatient facilities: a cross-sectional study with implications for the control of COVID-19.

#### Source

Lancet Global Health; 2020. 8(6):e780-e789. 31 ref.

#### Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Abstract

**Background:** As coronavirus disease 2019 (COVID-19) spreads, weak health systems must not become a vehicle for transmission through poor infection prevention and control practices. We assessed the compliance of health workers with infection prevention and control practices relevant to COVID-19 in outpatient settings in Tanzania, before the pandemic. **Methods:** This study was based on a secondary analysis of cross-sectional data collected as part of a randomised controlled trial in private for-profit dispensaries and health centres and in faith-based dispensaries, health centres, and hospitals, in 18 regions. We observed provider-patient interactions in outpatient consultation rooms, laboratories, and dressing rooms, and categorised infection prevention and control practices into four domains: hand hygiene, glove use, disinfection of reusable equipment, and waste management. We calculated compliance as the proportion of indications (infection risks) in which a health worker performed a correct action, and examined associations between compliance and health worker and facility characteristics using multilevel mixed-effects logistic regression models. **Findings:** Between Feb 7 and April 5, 2018, we visited 228 health facilities, and observed at least one infection prevention and control indication in 220 facilities (118 [54%] dispensaries, 66 [30%] health centres, and 36 [16%] hospitals). 18 710 indications were observed across 734 health workers 49 [7%] medical doctors, 214 [29%] assistant medical officers or clinical officers, 106 [14%] nurses or midwives, 126 [17%] clinical assistants, and 238 [32%] laboratory technicians or assistants. Compliance was 6.9% for hand hygiene (n=8655 indications), 74.8% for glove use (n=4915), 4.8% for disinfection of reusable equipment (n=841), and 43.3% for waste management (n=4299). Facility location was not associated with compliance in any of the infection prevention and control domains. Facility level and ownership were also not significantly associated with compliance, except for waste management. For hand hygiene, nurses and midwives (odds ratio 5.80 [95% CI 3.91-8.61]) and nursing and medical assistants (2.65 [1.67-4.20]) significantly outperformed the reference category of assistant medical officers or clinical officers. For glove use, nurses and midwives (10.06 [6.68-15.13]) and nursing and medical assistants (5.93 [4.05-8.71]) also significantly outperformed the reference category. Laboratory technicians performed significantly better in glove use (11.95 [8.98-15.89]), but significantly worse in hand hygiene (0.27 [0.17-0.43]) and waste management (0.25 [0.14-0.44]) than the reference category. Health worker age was negatively associated with correct glove use and female health workers were more likely to comply with hand hygiene. **Interpretation:** Health worker infection prevention and control compliance, particularly for hand hygiene and disinfection, was inadequate in these outpatient settings. Improvements in provision of supplies and health worker behaviours are urgently needed in the face of the current pandemic.

Publication Type

Journal article.

<463>

Accession Number

20203235173

Author

Sun JiuMeng; He WanTing; Wang LiFang; Lai, A.; Ji Xiang; Zhai XiaoFeng; Li GaiRu; Suchard, M. A.; Tian, J.; Zhou JiYong; Veit, M.; Su Shuo

Title

COVID-19: epidemiology, evolution, and cross-disciplinary perspectives.

Source

Trends in Molecular Medicine; 2020. 26(5):483-495. 85 ref.

Publisher

Cell Press

Location of Publisher

Cambridge

Country of Publication

USA

Abstract

The recent outbreak of COVID-19 in Wuhan turned into a public health emergency of international concern. With no antiviral drugs nor vaccines, and the presence of carriers without obvious symptoms, traditional public health intervention measures are significantly less effective. Here, we report the epidemiological and virological characteristics of the COVID-19 outbreak. Originated in bats, 2019-nCoV/severe acute respiratory syndrome coronavirus (SARS-CoV)-2 likely experienced adaptive evolution in intermediate hosts before transfer to humans at a concentrated source of transmission. Similarities of receptor sequence binding to 2019-nCoV between humans and animals suggest a low species barrier for transmission of the virus to farm animals. We propose, based on the One Health model, that veterinarians and animal specialists should be involved in a cross-disciplinary collaboration in the fight against this epidemic.

Publication Type

Journal article.

<464>

Accession Number

20203234977

Author

Dashraath, P.; Wong JingLin [Wong, J. L. J.]; Lim MeiXian [Lim, M. X. K.]; Lim LiMin; Li, S.; Arijit Biswas; Choolani, M.; Mranzcog, C. M.; Su LinLin

Title

Coronavirus disease 2019 (COVID-19) pandemic and pregnancy.

Source

American Journal of Obstetrics and Gynecology; 2020. 222(6):521-531. 87 ref.

Publisher

Mosby Inc.

Location of Publisher

St. Louis

Country of Publication

USA

Abstract

The current coronavirus disease 2019 (COVID-19) pneumonia pandemic, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is spreading globally at an accelerated rate, with a basic reproduction number (R0) of 2-2.5, indicating that 2-3 persons will be infected from an index patient. A serious public health emergency, it is particularly deadly in vulnerable populations and communities in which healthcare providers are insufficiently prepared to manage the infection. As of March 16, 2020, there are more than 180,000 confirmed cases of COVID-19 worldwide, with more than 7000 related deaths. The SARS-CoV-2 virus has been isolated from asymptomatic individuals, and affected patients continue to be infectious 2 weeks after cessation of symptoms. The substantial morbidity and socioeconomic impact have necessitated drastic measures across all continents, including nationwide lockdowns and border closures. Pregnant women and their fetuses represent a high-risk population during infectious disease outbreaks. To date, the outcomes of 55 pregnant women infected with COVID-19 and 46 neonates have been reported in the literature, with no definite evidence of vertical transmission. Physiological and mechanical changes in pregnancy increase susceptibility to infections in general, particularly when the cardiorespiratory system is affected, and encourage rapid

progression to respiratory failure in the gravida. Furthermore, the pregnancy bias toward T-helper 2 (Th2) system dominance, which protects the fetus, leaves the mother vulnerable to viral infections, which are more effectively contained by the Th1 system. These unique challenges mandate an integrated approach to pregnancies affected by SARS-CoV-2. Here we present a review of COVID-19 in pregnancy, bringing together the various factors integral to the understanding of pathophysiology and susceptibility, diagnostic challenges with real-time reverse transcription polymerase chain reaction (RT-PCR) assays, therapeutic controversies, intrauterine transmission, and maternal-fetal complications. We discuss the latest options in antiviral therapy and vaccine development, including the novel use of chloroquine in the management of COVID-19. Fetal surveillance, in view of the predisposition to growth restriction and special considerations during labor and delivery, is addressed. In addition, we focus on keeping frontline obstetric care providers safe while continuing to provide essential services. Our clinical service model is built around the principles of workplace segregation, responsible social distancing, containment of cross-infection to healthcare providers, judicious use of personal protective equipment, and telemedicine. Our aim is to share a framework that can be adopted by tertiary maternity units managing pregnant women in the flux of a pandemic while maintaining the safety of the patient and healthcare provider at its core.

#### Publication Type

Journal article.

<465>

#### Accession Number

20203234967

#### Author

Park SuJin; Yu KwangMin; Kim YoungIl; Kim SeMi; Kim EunHa; Kim SeongGyu; Kim EunJi; Casel, M. A. B.; Rollon, R.; Jang SeungGyu; Lee MinHyeok; Chang JaeHyung; Song MinSuk; Jeong HyeWon; Choi Younho; Chen WeiQiang; Shin WooJin; Jung, J. U.; Choi YoungKi

#### Title

Antiviral efficacies of FDA-approved drugs against SARS-CoV-2 infection in ferrets.

#### Source

mBio; 2020. 11(3)24 ref.

#### Publisher

American Society for Microbiology (ASM)



Location of Publisher

Washington, D.C.

Country of Publication

USA

Abstract

Due to the urgent need of a therapeutic treatment for coronavirus (CoV) disease 2019 (COVID-19) patients, a number of FDA-approved/repurposed drugs have been suggested as antiviral candidates at clinics, without sufficient information. Furthermore, there have been extensive debates over antiviral candidates for their effectiveness and safety against severe acute respiratory syndrome CoV 2 (SARS-CoV-2), suggesting that rapid preclinical animal studies are required to identify potential antiviral candidates for human trials. To this end, the antiviral efficacies of lopinavir-ritonavir, hydroxychloroquine sulfate, and emtricitabine-tenofovir for SARS-CoV-2 infection were assessed in the ferret infection model. While the lopinavir-ritonavir-, hydroxychloroquine sulfate-, or emtricitabine-tenofovir-treated group exhibited lower overall clinical scores than the phosphate-buffered saline (PBS)-treated control group, the virus titers in nasal washes, stool specimens, and respiratory tissues were similar between all three antiviral-candidate-treated groups and the PBS-treated control group. Only the emtricitabine-tenofovir-treated group showed lower virus titers in nasal washes at 8 days postinfection (dpi) than the PBS-treated control group. To further explore the effect of immune suppression on viral infection and clinical outcome, ferrets were treated with azathioprine, an immunosuppressive drug. Compared to the PBS-treated control group, azathioprine-immunosuppressed ferrets exhibited a longer period of clinical illness, higher virus titers in nasal turbinate, delayed virus clearance, and significantly lower serum neutralization (SN) antibody titers. Taken together, all antiviral drugs tested marginally reduced the overall clinical scores of infected ferrets but did not significantly affect in vivo virus titers. Despite the potential discrepancy of drug efficacies between animals and humans, these preclinical ferret data should be highly informative to future therapeutic treatment of COVID-19 patients.

Publication Type

Journal article.

<466>

Accession Number

20203235432

Author

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[www.rcvsknowledge.org](http://www.rcvsknowledge.org)

Title

Knowledge, attitude, and practice towards coronavirus disease 2019 (COVID-19) among medical students: A cross-sectional study.

Source

Journal of Acute Disease; 2020. 9(3):100-104. 17 ref.

Publisher

Hainan Medical University

Location of Publisher

Haikou

Country of Publication

China

Abstract

Objective: To assess knowledge, attitude, and practice of medical students towards coronavirus disease 2019 (COVID-19). Methods: A self-designed questionnaire was developed and given to the students of a government medical college in Uttarakhand. The demographics, mean knowledge, attitude, and practice of the participants were investigated, and the scores were calculated. t-test and ANOVA were used for statistical analysis. Results: Out of the total participants (n=354), 50.3% were male and 54.5% were 21-23 years. Almost all the participants (96.6%) increase the frequency of washing hands under the influence of COVID-19. Although no significant relationship was found between different religions, age-categories in terms of knowledge, the participants who were aged 21-23 years had higher knowledge. In addition, gender had a significant impact on practice scores ( $P < 0.05$ ) while no demographic variable was found to have a significant relation with attitude score ( $P > 0.05$ ). Conclusions: The majority of the participants had good knowledge, positive attitude, and sufficient practice. Females and males have significantly different practices. Although the results are very positive, it is suggested that people should continue to strengthen knowledge, attitude, and practice towards COVID-19, so that India can win the battle against the disease.

Publication Type

Journal article.

<467>

Accession Number

20203230953

Author

Jamshed Nayer; Ankit Kumar Sahu; Praveen Aggarwal

Title

Novel coronavirus: a capsule review for primary care and acute care physicians.

Source

Journal of Family Medicine and Primary Care; 2020. 9(4):1820-1824. 36 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Novel coronavirus nCoV is a new emerging infectious agent causing coronavirus disease 2019 COVID-19. Since the reporting of early cases of COVID-19 from China on December 29, 2019 till March 15, 2020, it has affected 1,42,539 humans in 135 countries, including 82 cases in India. As it is a difficult task for first-contact physicians, i.e. primary care and acute care physicians, to comprehend the fast-growing knowledge about nCoV and apply for prevention and care of suspected cases of COVID-19, we have tried to provide an updated capsule review of nCoV infection and management of COVID-19. It includes the evidence-based information on epidemiological determinants agent, host, and environment of the disease, its clinical features, clinical and laboratory diagnosis, basic infection prevention and control measures, and clinical management of COVID-19 cases. This review also includes the succinct summary of World Health Organization and Center for Diseases Control and Prevention interim guidelines as of March 15, 2020 on nCoV. Keywords: Acute care, COVID~19, novel coronavirus, primary care, Update.

Publication Type

Journal article.

<468>

Accession Number

20203230952

Author

Sumit Verma; Manjunath, S. M.; Ettishree; Atul Singh; Madhulika Srivastava; Sahoo, K. K.; S., V.; Ujwal Singh

Title

Coronavirus: An emergency for healthcare professionals.

Source

Journal of Family Medicine and Primary Care; 2020. 9(4):1815-1819. 30 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Coronavirus infection is a transmissible disease. It was first described in China in December, 2019. It has been said to have a person-to-person transmission after prolonged and unprotected exposure. Patients with a potential SARS-CoV-2 exposure present with symptoms of low-grade pyrexia, dry cough, or shortness of breath. People with these symptoms should contact health-care providers before seeking medical intervention so that appropriate preventive actions may be implemented. Health-care facilities should rapidly isolate suspected individuals and notify local health departments for support involved in performing laboratory tests and efforts in containment. The present article describes the nature of virus, method of detection, and its mode of transmission.

Publication Type

Journal article.

<469>

Accession Number

20203230948

Author

Raman Kumar; Vandana Boobna; Mo-han Kubendra; Resmi S Kaimal; Jachin Velavan; Sreenivas Venkapalli

Title

Ensuring continuity of care by small family practices and clinics in the primary care setting during COVID 19 pandemic 2020 - a position paper by the academy of family physicians of India.

Source

Journal of Family Medicine and Primary Care; 2020. 9(4):1798-1800. 4 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The world is passing through a global pandemic of COVID 19. The number of positive cases has crossed over twenty thousand as of April 2020. Like everyone else, it is indeed a very challenging situation for family physicians and primary care providers as most of the guidelines presently have focused on screening, quarantine, isolation, and hospital-based management. Limited information or clarity is available on running small private clinics during pandemic times. The key concern is professional obligation versus risks of community transmission. Family physicians see routine flu-like illnesses throughout the year with seasonal variation within their practices. This document is intended to develop consensus and standard practices for the family physicians and other primary care providers during the pandemic, ensuring optimal continuity of care. This document was reviewed by the national executive of the Academy of Family Physicians of India and approved for dissemination among members. However, due to the dynamic status of the pandemic, all practitioners are advised to closely follow the instructions, guidelines, and advisories of national, state and local health authorities as well. Keywords: COVID 19 in India, Academy of Family Physicians of India, primary care, family physicians.

Publication Type

Journal article.

<470>

Accession Number

20203230947

Author

Raman Kumar; Shehla Naseem; Jayatissa, J.; Adhikari, C. L.; Tariq Aziz; Riaz Qureshi; Prasad, P. N.; Randenikumara, S.; Pratyush Kumar; Rahman, M. Z.; Gupta, P. P.; Khan, M. K. A.; Perera, M. A.; Vandana Boobna; Kaimal, R. S.; Mohan Kubendra; Sanjeeb Tiwari; Hina Jawaid; Samaranayaka, S.; Andrades, M.; Purshottam Madhwani, K.; Shah, P. R.

Title

A statement of solidarity on COVID-19 pandemic 2020 by the South Asian family physicians.

Source

Journal of Family Medicine and Primary Care; 2020. 9(4):1795-1797.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The World Organization of Family Doctors (WONCA) is a not-for-profit organization and was founded in 1972 by member organizations in 18 countries. WONCA now has 118 Member Organizations in 131 countries and territories with a membership of about 500,000 family doctors and more than 90 percent of the world's population. WONCA has seven regions, each of which has its own regional Council and run their own regional activities including conferences. WONCA South Asia Region is constituted by the national academies and colleges and academic member organizations of this region namely India, Pakistan, Bangladesh, Nepal, Sri Lanka, Bhutan, and the Maldives. In the background of the ongoing COVID 19 pandemic, the office bearers, academic leaders, practitioners, and researchers of primary care from the South Asia Region have issued a solidarity statement articulating the role of primary care physicians.

Publication Type

Journal article.

<471>

Accession Number

20203230919

Author

Fan Juan; Zhou Mei; Wei Lu; Fu LiZhen; Zhang XianHong; Shi Yuan

Title

A qualitative study on the psychological needs of hospitalized newborns' parents during COVID-19 outbreak in China.

Source

Iranian Journal of Pediatrics; 2020. 30(2)23 ref.

Publisher

Kowsar Medical Publishing

Location of Publisher

Heerlen

Country of Publication

Netherlands

Abstract

Background: As the 2019 novel coronavirus disease (COVID-19) emerged in China, the parents of hospitalized neonatal patients commonly endure more psychological stress compared to the general population, which probably originated from not staying with their children, inconvenience of daily life, and financial crisis. Objectives: We investigated the psychological needs of hospitalized newborns' parents during the COVID-19 outbreak in Chongqing, China. Methods: The phenomenological method was used to conduct this qualitative research. In-depth interviews were carried out on 14 parents of hospitalized newborns by the same interview based on a semi-structured interview outlines. The interviews were audio-taped, transcribed, and analyzed using Colaizzi's 7-step analysis method. Results: All the subjects' children were admitted to a neonatal ward within the first two weeks of initiating the first-level response to COVID-19 in Chongqing, China. The in-depth interviews identified five themes regarding the parents' primary psychological needs, which included urgent demand for timely up-to-date information about the children's condition, demand for psychological and emotional support, reducing the inconvenience caused by the epidemic outbreak, claim for protective information after discharge, demand for financial support. Conclusions: Based on the parents' needs, the medical staff should

actively communicate with the parents, effectively provide emotional and financial support, and convenience. Such support could be helpful to relieve the parents' psychological stress.

Publication Type

Journal article.

<472>

Accession Number

20203229626

Author

Chu, D. K. W.; Pan Yang; Cheng, S. M. S.; Hui, K. P. Y.; Pavithra Krishnan; Liu YingZhi; Ng, D. Y. M.; Wan, C. K. C.; Yang Peng; Wang QuanYi; Peiris, M.; Poon, L. L. M.

Title

Molecular diagnosis of a novel coronavirus (2019-nCoV) causing an outbreak of pneumonia.

Source

Clinical Chemistry; 2020. 66(4):549-555. 20 ref.

Publisher

American Association for Clinical Chemistry

Location of Publisher

Washington

Country of Publication

USA

Abstract

Background: A novel coronavirus of zoonotic origin (2019-nCoV) has recently been identified in patients with acute respiratory disease. This virus is genetically similar to SARS coronavirus and bat SARS-like coronaviruses. The outbreak was initially detected in Wuhan, a major city of China, but has subsequently been detected in other provinces of China. Travel-associated cases have also been reported in a few other countries. Outbreaks in health care workers indicate human-to-human transmission. Molecular tests for rapid detection of this virus are urgently needed for early identification of infected patients. Methods: We developed two 1-step quantitative real-time reverse-transcription



PCR assays to detect two different regions (ORF1b and N) of the viral genome. The primer and probe sets were designed to react with this novel coronavirus and its closely related viruses, such as SARS coronavirus. These assays were evaluated using a panel of positive and negative controls. In addition, respiratory specimens from two 2019-nCoV-infected patients were tested. Results: Using RNA extracted from cells infected by SARS coronavirus as a positive control, these assays were shown to have a dynamic range of at least seven orders of magnitude ( $2 \times 10^{-4}$ -2000 TCID<sub>50</sub>/reaction). Using DNA plasmids as positive standards, the detection limits of these assays were found to be below 10 copies per reaction. All negative control samples were negative in the assays. Samples from two 2019-nCoV-infected patients were positive in the tests. Conclusions: The established assays can achieve a rapid detection of 2019n-CoV in human samples, thereby allowing early identification of patients.

Publication Type

Journal article.

<473>

Accession Number

20203232143

Author

Chen An; Shi Yu

Title

The influence of risk preference on public purchase behavior: with the purchase of masks as an example. (Special Section: COVID-19.) [Chinese]

Source

Science & Technology Review; 2020. 38(4):86-92. 15 ref.

Publisher

Science and Technology Review Publishing House

Location of Publisher

Beijing

Country of Publication

China

## Abstract

In early 2020, the COVID-19 spread to all parts of China and even other countries in a short period of time. The severe epidemic situation would put a psychological pressure on the public, resulting in anxiety, panic and other emotions, even some irrational behavior such as scare buying and becoming credulous of rumors. The risk preference is defined as the degree of the risk that people are willing to accept in their decisions and behaviors. In this public health emergency, the consumers' purchase and use of sanitary and epidemic prevention products reflects their risk preference. This paper explores the relationship between the public risk preference and the purchase behavior through a questionnaire survey, and it is found that the factors influencing the purchase behavior mainly include the gender factors, the perceived risk level and the severity of the epidemic situation in the residence area, as indicated by the Association Rule Mining.

## Publication Type

Journal article.

<474>

## Accession Number

20203232142

## Author

Chen XueFeng; Zhang Qin; Zhang LeQi

## Title

American emergency management psychological service system and its enlightenment. (Special Section: COVID-19.) [Chinese]

## Source

Science & Technology Review; 2020. 38(4):77-85. 31 ref.

## Publisher

Science and Technology Review Publishing House

## Location of Publisher

Beijing

## Country of Publication

China

## Abstract

The prevention and the control of the coronavirus disease (COVID-19) highlight the urgency of improving the national public health emergency management system. In the construction of an emergency management system, the development of the public psychological service system is crucial. This paper reviews the development stages, the operation mechanism, the professional contingent, and the professional support platform in the emergency management system in the U.S, including its main experience and the existing problems. In view of China's state of the public psychological services, some suggestions are made for the emergency psychological service system construction in China, which involve the following four aspects: the information system of the emergency psychological services, a classified psychological service team, the research directions of psychological services for the emergency management, and the legal system of the emergency psychological services.

## Publication Type

Journal article.

<475>

## Accession Number

20203232141

## Author

Guo Fei; Cai Yue; Wang YaXin; Li YueYi; Chen ZhiYan

## Title

Emotional health status and social mentality of the Chinese general public during the 2019 novel coronavirus pneumonia pandemic. (Special Section: COVID-19.) [Chinese]

## Source

Science & Technology Review; 2020. 38(4):68-76. 32 ref.

## Publisher

Science and Technology Review Publishing House

## Location of Publisher

Beijing

## Country of Publication

China

## Abstract

In order to evaluate the emotional state and the social mentality of the Chinese public during the 2019 novel coronavirus (2019-nCoV) pneumonia pandemic, the data of two online public surveys conducted on February 18-20 and 21-22 are analyzed. The results show that nearly 1/3 of the respondents have some degree of depression symptoms, and 22.4% have significant anxiety symptoms. The current level of depression is higher than in the 2008 national survey. Among various occupational groups, the anxiety and the depression are significantly higher among the unemployed, and the mental health state of private enterprises, self-employed and entrepreneurs is in a relatively low level. In terms of social mentality, the public are in different psychological stages, some of them are prone to be depressive and angry. The public tend to be more altruistic under pressure, especially toward medical workers. According to the survey results, the current mental health is a very important issue to work upon, in the current epidemic it is necessary to persistently strengthen the public mental health publicity and the psychological counseling, to deal with the mental health problems after the epidemic, to strengthen the construction of the social psychological service system, and to improve the public mental health literacy in the future.

## Publication Type

Journal article.

<476>

## Accession Number

20203232139

## Author

Chen An; Wang ZiJun; Chen YingHua

## Title

Spread and governance of pseudo-science internet rumors in major public healthy emergencies based on SEIR model: a case study of COVID-19 epidemic. (Special Section: COVID-19.) [Chinese]

## Source

Science & Technology Review; 2020. 38(4):55-65. 19 ref.

## Publisher

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Location of Publisher

Beijing

Country of Publication

China

Abstract

By 18:00 on February 16, 2020, the cumulative number of confirmed cases caused by COVID-19 epidemic in China has reached 68,592. The epidemic control work is at a critical period. However, the proliferation of the pseudo-science Internet rumors during the COVID-19 epidemic cause widespread adverse social events, such as the blind rush purchases and hoarding, which seriously affect the epidemic control and the normal social order. Taking the COVID-19 epidemic as an example, this paper reviews the definitions of the pseudo-science and Internet rumors proposed by domestic and foreign scholars. Four major pseudo-science Internet rumors that have had a greater impact in this epidemic, and the data on Sina Weibo(microblog) are used as examples to analyze the spread characteristics of the pseudo-science Internet rumors. Based on the SEIR model, this paper comprehensively analyzes factors such as the lag of official intervention, the bandwagon effect of individual information acceptance, and the spread characteristics of rumors, and the mechanism of the pseudo-science Internet rumors in major public health emergencies through numerical experiments. Finally, this paper proposes countermeasures for the pseudo-science Internet rumors in major public healthy emergencies from various angles.

Publication Type

Journal article.

<477>

Accession Number

20203232137

Author

Sun YongSheng; Jin Wei; Tang YuChao

Title

Application of unmanned system in prevention and control of COVID-19. (Special Section: COVID-19.)  
[Chinese]

Source

Science & Technology Review; 2020. 38(4):39-49. 28 ref.

Publisher

Science and Technology Review Publishing House

Location of Publisher

Beijing

Country of Publication

China

Abstract

In the major epidemic prevention & control work on the novel coronavirus pneumonia (COVID-19), the intelligent unmanned systems play a great role. In the epidemic monitoring stage, we have the unmanned aircraft systems (UAS) for high altitude monitoring, the robots for epidemic prevention publicity and for elimination of virus by dispersing drugs, and the intelligent infrared system for measuring the temperature, which work effectively, providing a powerful technical means for epidemic prevention & control. In the stage of prevention and treatment, the 5G remote consultation platform, the diagnosis and treatment robots, and the movable negative pressure isolation cabin effectively work for the problems of infection risk caused by the direct contact treatment and for the safety of the front-line medical staff. In terms of the material support, the intelligent production system and the UAS play a key role in the medical and life necessity production and deployment, to greatly improve the efficiency of the supply part. We should focus on these three stages and establish an unmanned system for epidemic prevention & control.

Publication Type

Journal article.

<478>

Accession Number

20203232136

Author

Wang Lan; Liu Lu

Title

The present condition of China's medical and health facilities in the epidemic situation of COVID-19, and a comparison with other countries. (Special Section: COVID-19.) [Chinese]

Source

Science & Technology Review; 2020. 38(4):29-38. 23 ref.

Publisher

Science and Technology Review Publishing House

Location of Publisher

Beijing

Country of Publication

China

Abstract

The medical and health facilities are important infrastructure for improving people's livelihood and protecting people's health. The relationship between supply and demand of medical and health facilities in China needs to be reexamined in the epidemic situation of the COVID-19. Based on the statistics of the medical and health facilities in 2018, this paper selects the number of medical and health facilities per capita, the number of beds per medical and health facilities per capita, and the number of medical and health personnel per capita to make a comparison. This paper analyzes the regional distribution of medical and health facilities, the difference between urban and rural areas, and the difference between public and private medical and health facilities in China, and compares them with other countries. In view of the realistic problems of hospitals fighting against COVID-19 in Wuhan, the following suggestions are made: strengthening the medical and health facilities of provinces in South China, increasing the investment in primary health care facilities and medical stuff, guiding private medical institutions to participate in the management of public health emergencies, and reserving emergency sites for public health emergencies in hospital planning.

Publication Type

Journal article.

<479>

Accession Number

20203232135

Author

Yuan HongYong; Chen Tao; Huang LiDa; Su GuoFeng; Huang QuanYi; Dai JiaKun; Yu ShuiPing

Title

Analysis and comparison of comprehensive risk index of covid-19 in China and Hubei Province.  
(Special Section: COVID-19.) [Chinese]

Source

Science & Technology Review; 2020. 38(4):21-28. 4 ref.

Publisher

Science and Technology Review Publishing House

Location of Publisher

Beijing

Country of Publication

China

Abstract

The comprehensive risk assessment of COVID-19 is a key approach to the comprehensive epidemic risk management while the assessment method is the key to the epidemic risk assessment. This paper uses the public security "triangular model" and considers the three factors, i.e., the incident(the hazard of the virus itself), the vulnerability of hazard-affected carriers(the vulnerability of vulnerable groups), and the effectiveness of emergency management to establish a multidimensional risk assessment method, which can help to provide effective method for the next epidemic response and plans of resource allocation. According to the assessment results, the top five provinces with highest comprehensive risk are respectively Hubei, Shanghai, Hong Kong, Beijing and Guangdong. Within Hubei province, the top four cities are Wuhan, E'zhou, Xiaogan and Huanggang.

Publication Type

Journal article.

<480>

Accession Number

20203217687



Author

Zhao YanJie; Xiang ChunLin; Wang ShaoFang; Peng ChengDong; Zou Qian; Hu JunWu

Title

Radiology department strategies to protect radiologic technologists against COVID19: experience from Wuhan.

Source

European Journal of Radiology; 2020. 12711 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The outbreak of Coronavirus Disease 2019 (COVID-19) is a huge threat to global public health security. In the absence of specific antiviral medicines to prevent or treat COVID-19, it is essential to detect the infected patients at an early stage and immediately isolate them from the healthy population. In view of the advantages of sensitivity and high spatial resolution, CT imaging has played an important role in screening and diagnosing of COVID-19 in China. The radiologic technologists performing CT scans for the infected patients become high-risk medical care personnel. It is critical for the radiology department to ensure the personal safety of radiologic technologists and avoid cross-infection. In this review article, we describe the systematic strategies to combat COVID-19 from the radiology department in Tongji hospital in Wuhan, P.R. China, including personnel arrangements, environmental modification, protection levels and configurations, radiological imaging (CT and radiography), and disinfection methods. It can provide guidance to other radiology departments faced with COVID-19 to reduce infection risk for radiologic technologists.

Publication Type

Journal article.

<481>

Accession Number

20203217624

Author

Wang Jiao; Shen Jin; Ye Dan; Yan Xu; Zhang YuJing; Yang WenJing; Li XinWu; Wang JunQi; Zhang LiuBo; Pan LiJun

Title

Disinfection technology of hospital wastes and wastewater: suggestions for disinfection strategy during Coronavirus Disease 2019 (COVID-19) pandemic in China.

Source

Environmental Pollution; 2020. 262many ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Hospitals are important sources of pollutants resulted from diagnostic, laboratory and research activities as well as medicine excretion by patients, which include active component of drugs and metabolite, chemicals, residues of pharmaceuticals, radioactive markers, iodinated contrast media, etc. The discharge of hospital wastes and wastewater, especially those without appropriate treatment would expose the public in danger of infection. In particular, under the Coronavirus Disease 2019 (COVID-19) pandemic context in China, it is of great significance to reduce the health risks to the public and environment. In this study, technologies of different types of hospital wastes and wastewater disinfection have been summarized. Liquid chlorine, sodium hypochlorite, chlorine dioxide, ozone, and ultraviolet irradiation disinfection are commonly used for hospital wastewater disinfection. While incineration, chemical disinfection, and physical disinfection are commonly used for hospital wastes disinfection. In addition, considering the characteristics of various hospital wastes, the classification and selection of corresponding disinfection technologies are discussed. On this basis, this study provides scientific suggestions for management, technology selection, and operation of hospital wastes and wastewater disinfection in China, which is of great significance for development of national disinfection strategy for hospital wastes and wastewater during COVID-19 pandemic.

Publication Type

Journal article.

<482>

Accession Number

20203187099

Author

Chelmala Srinivasulu; Sanjay Molur

Title

Bats don't cause or spread COVID-19.

Source

Zoos' Print; 2020. 35(4):1-3. 18 ref.

Publisher

Zoo Outreach Organisation

Location of Publisher

Coimbatore

Country of Publication

India

Publication Type

Journal article.

<483>

Accession Number

20203218188

Author

Decaro, N.; Lorusso, A.

Title

Novel human coronavirus (SARS-CoV-2): a lesson from animal coronaviruses.

Source

Veterinary Microbiology; 2020. 244many ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The recent pandemic caused by the novel human coronavirus, referred to as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), not only is having a great impact on the health care systems and economies in all continents but it is also causing radical changes of common habits and life styles. The novel coronavirus (CoV) recognises, with high probability, a zoonotic origin but the role of animals in the SARS-CoV-2 epidemiology is still largely unknown. However, CoVs have been known in animals since several decades, so that veterinary coronavirologists have a great expertise on how to face CoV infections in animals, which could represent a model for SARS-CoV-2 infection in humans. In the present paper, we provide an up-to-date review of the literature currently available on animal CoVs, focusing on the molecular mechanisms that are responsible for the emergence of novel CoV strains with different antigenic, biologic and/or pathogenetic features. A full comprehension of the mechanisms driving the evolution of animal CoVs will help better understand the emergence, spreading, and evolution of SARS-CoV-2.

Publication Type

Journal article.

<484>

Accession Number

20203219307

## Author

Caccialanza, R.; Laviano, A.; Lobascio, F.; Montagna, E.; Bruno, R.; Ludovisi, S.; Corsico, A. G.; Sabatino, A. di; Belliato, M.; Calvi, M.; Iacona, I.; Grugnetti, G.; Bonadeo, E.; Muzzi, A.; Cereda, E.

## Title

Early nutritional supplementation in non-critically ill patients hospitalized for the 2019 novel coronavirus disease (COVID-19): rationale and feasibility of a shared pragmatic protocol.

## Source

Nutrition; 2020. 7451 ref.

## Publisher

Elsevier

## Location of Publisher

New York

## Country of Publication

USA

## Abstract

**Objectives:** Beginning in December 2019, the 2019 novel coronavirus disease (COVID-19) has caused a pneumonia epidemic that began in Wuhan, China, and is rapidly spreading throughout the whole world. Italy is the hardest hit country after China. Considering the deleterious consequences of malnutrition, which certainly can affect patients with COVID-19, the aim of this article is to present a pragmatic protocol for early nutritional supplementation of non-critically ill patients hospitalized for COVID-19 disease. It is based on the observation that most patients present at admission with severe inflammation and anorexia leading to a drastic reduction of food intake, and that a substantial percentage develops respiratory failure requiring non-invasive ventilation or even continuous positive airway pressure. **Methods:** High-calorie dense diets in a variety of different consistencies with highly digestible foods and snacks are available for all patients. Oral supplementation of whey proteins as well as intravenous infusion of multivitamin, multiminerall trace elements solutions are implemented at admission. In the presence of 25-hydroxyvitamin D deficit, cholecalciferol is promptly supplied. If nutritional risk is detected, two to three bottles of protein-calorie oral nutritional supplements (ONS) are provided. If <2 bottles/d of ONS are consumed for 2 consecutive days and/or respiratory conditions are worsening, supplemental/total parenteral nutrition is prescribed. **Conclusion:** We are aware that our straight approach may be debatable. However, to cope with the current emergency crisis, its aim is to promptly and pragmatically implement nutritional care in patients with COVID-19, which might be overlooked despite being potentially beneficial to clinical outcomes and effective in preventing the consequences of malnutrition in this patient population.

## Publication Type

Journal article.

<485>

Accession Number

20203213147

Author

Tian Ye; Li RuiMing; Ren HongWei; Li DeKun; Ju AiChun; He Yi; Zhou ShuiPing; Yan KaiJing; Yu BoYang

Title

Feasibility of Shengmai powder in convalescent patients with novel coronavirus pneumonia. [Chinese]

Source

Drug Evaluation Research; 2020. 43(3):378-383. 67 ref.

Publisher

Drug Evaluation Research

Location of Publisher

Tianjin

Country of Publication

China

Abstract

As the number of discharged patients with novel coronavirus pneumonia (COVID-19) increased, TCM treatment received more attention. Some COVID-19 diagnosis and treatment plans issued by national health commission and local government recorded the syndrome differentiation and classification of TCM in the convalescent period and the treatment prescriptions. The clinical characteristics and TCM classification of convalescent period were also reported in recent literatures. Deficiency of Qi and Yin is the main syndrome in recovery period, and the Shengmai Powder (SMS) is the representative prescription. This paper reviews the studies of SMS in the treatment of deficiency of Qi and Yin, pulmonary fibrosis and vascular endothelial cell injury. The feasibility of SMS for the discharged patients with COVID-19 was discussed. This review will provide reference for clinical doctors and patients in the recovery period of TCM treatment.

Publication Type

Journal article.

<486>

Accession Number

20203217401

Author

Colson, P.; Rolain, J. M.; Lagier, J. C.; Brouqui, P.; Raoult, D.

Title

Chloroquine and hydroxychloroquine as available weapons to fight COVID-19.

Source

International Journal of Antimicrobial Agents; 2020. 55(4)

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The objective of the article was to examine the efficacy of repurposing of chloroquine and hydroxychloroquine to combat COVID-19. Indeed, following the very recent publication of results showing the in vitro activity of chloroquine against SARS-CoV-2, data have been reported on the efficacy of this drug in patients with SARS-CoV-2-related pneumonia (named COVID-19) at different levels of severity. Thus, following the in vitro results, 20 clinical studies were launched in several Chinese hospitals. The first results obtained from more than 100 patients showed the superiority of chloroquine compared with treatment of the control group in terms of reduction of exacerbation of pneumonia, duration of symptoms and delay of viral clearance, all in the absence of severe side effects. This has led in China to include chloroquine in the recommendations regarding the prevention and treatment of COVID-19 pneumonia.

Publication Type

Journal article.

<487>

Accession Number

20203217400

Author

Ko WenChien; Rolain, J. M.; Lee NanYao; Chen PoLin; Huang ChingTai; Lee PingIng; Hsueh PoRen

Title

Arguments in favour of remdesivir for treating SARS-CoV-2 infections.

Source

International Journal of Antimicrobial Agents; 2020. 55(4)

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The objective of the article was to review the literature on an existing but not approved antiviral agent, remdesivir, which exhibits promising in vitro antiviral activity and preliminary clinical experiences in the treatment of COVID-19. With an effective reduction of pulmonary viral load in a murine model of SARS-CoV infection, potent antiviral activity against SARS-CoV-2, acceptable safety profile of parenteral remdesivir therapy in two case reports, and a randomised trial of Ebola virus disease, the clinical use of remdesivir in the cases of COVID-19 is highly anticipated. Two randomised clinical trials of parenteral remdesivir therapy in the treatment of COVID-19 in China may open the window for effective antiviral therapy for such an epidemic infectious disease.

Publication Type

Journal article.



<488>

Accession Number

20203214807

Author

Md. Zakir Hossain; Md. Nashir Uddin

Title

Natural Polyphenol Engineering Field Crops based Diet to Promote Innate Immunity to Combat Covid-19 Disease.

Source

AgriRxiv; 2020. :22 pp. 102 ref.

Abstract

Due to Covid-19, quarter a million patients have already died worldwide, and evidence showed a clear association between this death and multiple organ dysfunction cytokine storms. No sustainable remedy against this disease has been found and many solutions are being considered to dig out this virus by inventing humoral and cellular immunity capacity building methods as well as food-based remedies. COVID-19 has added an extra burden to the low-income country's health care system while they are still struggling with many challenges including malnutrition, sanitary, safe drinking water. Natural polyphenol engineering field crops (NPEF) based diet could help them to harness innate immunity to prevent or attenuate the SARS-Cov-2 infection as well as reducing the secondary/co-infection by bacteria and fungus of the hospitalized patients. Polyphenols are immunomodulators and have antibacterial, antiviral, anti-cancer, anti-diabetic, anti-inflammatory, coronary heart disease prevention effects together with the ability to transport other active molecules. Interaction of polyphenols increases the efficacy of vitamin D. This review explored the potentials of polyphenols and their available sources to address the chronic diseases including Covid-19 and proposed a food prescription for Bangladesh to improve their innate immunity system.

Publication Type

Preprint.

<489>

Accession Number

20203224283

Author

Shirvani, H.; Rostamkhani, F.

Title

Exercise considerations during coronavirus disease 2019 (COVID-19) outbreak: a narrative review.  
[Persian]

Source

Journal of Military Medicine; 2020. 22(2):Fa161-Fa168. 23 ref.

Publisher

Baqiyatallah University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

The widespread outbreak of coronavirus (COVID-19) worldwide has raised concerns about physical activity and exercise. A review of research on physical training and viral infections shows that regular, moderate-intensity aerobic exercise (65-80% VO<sub>2</sub> max) increases antibody titers, lymphocyte proliferation, gamma interferon, immunoglobulin M, G, and natural killer cells production. It modulates the levels of inflammatory cytokines, chemokines and T cell-mediated immune response to the influenza virus. That is also associated with stronger and longstanding antibody responses to influenza vaccination in adults. Based on the available evidence and similarity of some of the signs and/or symptoms of Covid-19 to the H1N1 virus, it may be recommended to exercise during the outbreak. First, it is reasonable to restrict heavy exercise at this stage, as the open window hypothesis may increase the susceptibility to infection. Second, healthy or asymptomatic individuals can exercise moderately with hygiene guidelines and benefit from improved immune function according to the J-shaped model. Third, people with mild upper respiratory tract symptoms (e.g., runny nose, sinus congestion, mild sore throat) can exercise lightly with precautions. Finally, one suspected of Covid-19 symptoms (e.g., fever, cough, severe sore throat, myalgia, shortness of breath, general fatigue) should avoid exercise.

Publication Type

Journal article.

<490>

Accession Number

20203224281

Author

Mohammadzadeh, A.

Title

Effectiveness of electronic health care and drug monitoring program to prevent COVID-19 and adherence to therapeutic regimen in patients with ischemic heart disease- a pilot study. [Persian]

Source

Journal of Military Medicine; 2020. 22(2):Fa139-Fa146. 17 ref.

Publisher

Baqiyatallah University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Background and Aim: One of the high-risk groups due to the prevalence of COVID-19 are patients with chronic heart disease. The aim of this study was to evaluate the effectiveness of the electronic health care and drug monitoring program to prevent COVID-19 and adherence to therapeutic regimen of patients with chronic heart disease (ischemic heart disease). Methods: This pilot study is a quasi-experimental study with control group. 10 patients with ischemic heart disease were randomly assigned to two groups of 5 individuals (intervention and control). Data collected using demographic questionnaire, Beigi's treatment follow-up questionnaire (2012), and a researcher-made questionnaire for prevention of SARS-CoV-2. Data analyzed with SPSS-22 software. Results: Patients in both groups were matched in age, sex, and BMI ( $p>0.05$ ). The adherence to the medication regimen and adherence to diet and physical activity, and adherence to the preventive issues of Covid-19 during 10 training sessions, showed a significant increase in the intervention group ( $p<0.005$ ). Conclusion: Electronic services and the use of e-visit in primary health care and adherence to home care regimen, using the mobile phones and the Internet, can enable accurate monitoring of patients' status and help patients at risk to avoid COVID-19.

Publication Type

Journal article.

<491>

Accession Number

20203224280

Author

Khodabakhshi-Koolaee, A.

Title

Living in home quarantine: analyzing psychological experiences of college students during Covid-19 pandemic. [Persian]

Source

Journal of Military Medicine; 2020. 22(2):Fa130-Fa138. 23 ref.

Publisher

Baqiyatallah University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Background and Aim: The Covid-2019 is a pneumonia that onset on December 31, 2019 in Wuhan, China, and then swept the world. Following the disease in Iran, people began a new life in quarantine to be safe. Quarantine life is accompanied by psychological, social and economic consequences, and its implementation requires the support, supervision and adherence of the country's medical staff. This phenomenological study was conducted to analyze college students' psychological experiences in home quarantine. Methods: This is qualitative research with an interpretive phenomenological approach. Purposeful sampling was done in Tehran, Iran in 2020. Data were collected through semi-structured interviews. Participants in this study were postgraduate students with a natural experience of living in quarantine. Research data reached a theoretical saturation with 15 interviews. All data were recorded

and handwritten and analyzed using the "Van Manen Phenomenology" approach. Results: Data analysis included four main themes, "developing negative emotions, confusion and pessimism", "developing obsessive-compulsive behavior about body and washing", "concerns about family health", "economic and social concerns, fear of tomorrow getting rid of the virus". Conclusion: The students' experiences of living in quarantine were very unique. Understanding the complexities of their experiences, beliefs, and attitudes about living in quarantine can provide comprehensive plans for decision-makers, health care professionals, and mental health professionals.

Publication Type

Journal article.

<492>

Accession Number

20203224279

Author

Samadipour, E.; Ghardashi, F.

Title

Factors influencing Iranians' risk perception of COVID-19. [Persian]

Source

Journal of Military Medicine; 2020. 22(2):Fa122-Fa129. 31 ref.

Publisher

Baqiyatallah University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Background and Aim: Today, risk perception goes beyond the individual subject and has a social, cultural and ideological significance. Since the only way to reduce risk in the community is to increase the risk perception of the majority of the population in the community, this study aimed to investigate

the factors influencing Iranians' risk perception of COVID-19 disease. Methods: This cross-sectional descriptive study was conducted using an online questionnaire among Iranian users of social networks. After convenience sampling, data were analyzed by SPSS and Amos software. Results: Out of 1265 observations, 364 people from 20 provinces have completed the questionnaire during the period February 25 to March 2, 2020. The most participants were in the 20-39 age group and 162 (44.5%) were men. The second-order confirmatory factor analysis test indicated that religious-cultural, political, cognitive, social, and emotional factors influence Iranians' risk perception of Covid-19 disease. Tests also showed that religious and cultural factors had the highest positive correlation and emotional factors had the most negative correlation with Iranians' risk perception of Covid-19 disease. Conclusion: Considering the importance of the role of socio-political and religious factors, it is suggested that the executive and cultural authorities of the country should strive to improve the Iranian risk perception of Covid19.

Publication Type

Journal article.

<493>

Accession Number

20203224277

Author

Meskarpour-Amiri, M.; Shams, L.; Nasiri, T.

Title

Identifying and categorizing the dimensions of Iran's health system response to the Covid-19 pandemic. [Persian]

Source

Journal of Military Medicine; 2020. 22(2):Fa108-Fa114. 22 ref.

Publisher

Baqiyatallah University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

## Abstract

**Background and Aim:** Coinciding with the onset of Covid-19, known as Corona in Iran, there have been many scattered reactions from the Iranian health system to the management of the disease. The aim of this study is to identify and categorize the dimensions of the Iranian health system response in order to identify points that have been overlooked and ignored. The results of this study can be used as a primary framework for analyzing the strengths and weaknesses of epidemic management in Iran.

**Methods:** This qualitative study was carried out by content analysis of documents related to SARS-CoV-2 pandemic. First, by reviewing the electronic resources, all existing documents, protocols and guidelines related to the management of corona disease in Iran were identified. All national media files, including audio, text, and video related to Covid-19, were collected over the period from 18 February 2020 to 27 March 2020, by searching the University of Medical Sciences and the Ministry of Health websites. Four JUPP criteria were used to select the documents, and finally 82 documents were selected after multi-stage screening. Document information was coded and analyzed with MAXQDA2018.2 software.

**Results:** The response of the Iranian health system to addressing the Covid-19 pandemic is in seven main areas of hygiene, treatment, education, logistic, crisis management, research management and the management of communication & information which has been identified and recorded in 46 sub-areas.

**Conclusion:** In the area of crisis management, the issue of contact tracing and control on the chain of disease transmission is still neglected. There are also no comprehensive guidelines for reducing or stopping social contacts and limiting population mobility within urban areas. It is also suggested that comprehensive instructions be developed to monitor the performance of the corona epidemic crisis management in the country.

## Publication Type

Journal article.

<494>

## Accession Number

20203227117

## Author

Bastos, L. S.; Niquini, R. P.; Lana, R. M.; Villela, D. A. M.; Cruz, O. G.; Coelho, F. C.; Code&ccedil;o, C. T.; Gomes, M. F. C.

## Title

Covid-19 and hospitalizations for SARI in Brazil: a comparison up to the 12th epidemiological week of 2020.

Source

Cadernos de SaAde PAblica; 2020. 36(4)11 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

Surveillance of the severe acute respiratory illness (SARI) in Brazil aims to characterize the circulation of the Influenza A and B viruses in hospitalized cases and deaths, having been expanded in 2012 to include other respiratory viruses. COVID-19 was detected in Brazil for the time in the 9th epidemiological week of 2020, and the test for the SARS-CoV-2 virus was included in the surveillance protocol starting in the 12th epidemiological week. This study's objective was to investigate the pattern of hospitalizations for SARI in Brazil since the entry of SARS-CoV-2, comparing the temporal and age profiles and laboratory results to the years 2010 through 2019. In 2020, hospitalizations for SARI, compiled from the date of the first confirmed case of COVID-19 up to the 12th week, exceeded the numbers observed during the same period in each of the previous 10 years. The age bracket over 60 years was the most heavily affected, at higher than historical levels. There was a considerable increase in negative laboratory tests, suggesting circulation of a different virus from those already present in the panel. We concluded that the increase in hospitalizations for SARI, the lack of specific information on the etiological agent, and the predominance of cases among the elderly during the same period in which there was an increase in the number of new cases of COVID-19 are all consistent with the hypothesis that severe cases of COVID-19 are already being detected by SARI surveillance, placing an overload on the health system. The inclusion of testing for SARS-CoV-2 in the SARI surveillance protocol and the test's effective nationwide deployment are extremely important for monitoring the evolution of severe COVID-19 cases in Brazil.

Publication Type

Journal article.



<495>

Accession Number

20203227103

Author

Camargo, K. R., Jr. de

Title

Trying to make sense out of chaos: science, politics and the COVID-19 pandemic.

Source

Cadernos de SaAde PAblica; 2020. 36(4)47 ref.

Publisher

Escola Nacional de Saude Publica

Location of Publisher

Rio de Janeiro

Country of Publication

Brazil

Abstract

This essay discusses the proliferation of discourses about the COVID-19 pandemic, presenting the challenges both to science and public policies that such an information overload present, having Collins' sociology of expertise as a theoretical framework.

Publication Type

Journal article.

<496>

Accession Number

20203226432

Author

Wong Y. S. [Wong, Y. S. S.]; Kwok On [Kwok, O. K.]; Chan K. L. [Chan, K. L. F.]

Title

What can countries learn from Hong Kong's response to the COVID-19 pandemic?

Source

Canadian Medical Association Journal; 2020. 192(19):E511-E515. 25 ref.

Publisher

Canadian Medical Association

Location of Publisher

Ottawa

Country of Publication

Canada

Abstract

Hong Kong has a relatively low number of cases of coronavirus disease 2019 (COVID-19) despite being an international travel hub and despite its proximity to Wuhan, China. Public health measures, including border control and social distancing, high-volume testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), aggressive contact tracing and quarantine centres, likely contributed substantially to the control, especially during the early period after the first confirmed case. The practice of personal protective behaviours, including use of face masks, by most people in Hong Kong may also have played an important role in controlling the spread of SARS-CoV-2 in the region.

Publication Type

Journal article.

<497>

Accession Number

20203227698

Author

Martinez, M. A.

Title

Compounds with therapeutic potential against novel respiratory 2019 coronavirus.

## Source

Antimicrobial Agents and Chemotherapy; 2020. 64(5)46 ref.

## Publisher

American Society for Microbiology (ASM)

## Location of Publisher

Washington, D.C.

## Country of Publication

USA

## Abstract

Currently, the expansion of the novel human respiratory coronavirus (known as SARS-CoV-2 [severe acute respiratory syndrome coronavirus 2], COVID- 2019 [coronavirus disease 2019], or 2019-nCoV [2019 novel coronavirus]) has stressed the need for therapeutic alternatives to alleviate and stop this new epidemic. The previous epidemics of infections by high-morbidity human coronaviruses, such as SARS-CoV in 2003 and the Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012, prompted the characterization of compounds that could be potentially active against the currently emerging novel coronavirus, SARS-CoV-2. The most promising compound is remdesivir (GS-5734), a nucleotide analog prodrug currently in clinical trials for treating Ebola virus infections. Remdesivir inhibited the replication of SARS-CoV and MERS-CoV in tissue cultures, and it displayed efficacy in nonhuman animal models. In addition, a combination of the human immunodeficiency virus type 1 (HIV-1) protease inhibitors lopinavir/ritonavir and interferon beta (LPV/RTV- IFN-beta) was shown to be effective in patients infected with SARS-CoV. LPV/RTV-IFN-beta also improved clinical parameters in marmosets and mice infected with MERS-CoV. Remarkably, the therapeutic efficacy of remdesivir appeared to be superior to that of LPV/RTV-IFN-beta against MERS-CoV in a transgenic humanized mouse model. The relatively high mortality rates associated with these three novel human coronavirus infections, SARS-CoV, MERS-CoV, and SARS-CoV-2, have suggested that proinflammatory responses might play a role in the pathogenesis. It remains unknown whether the generated inflammatory state should be targeted. Therapeutics that target the coronavirus alone might not be able to reverse highly pathogenic infections. This minireview aims to provide a summary of therapeutic compounds that have shown potential in fighting SARS-CoV-2 infections.

## Publication Type

Journal article.

<498>

Accession Number

20203224568

Author

Yang, K.; Wang LingWei; Li FuRong; Chen DanDan; Li Xi; Qiu Chen; Chen RongChang

Title

The influence of preventive strategies on the COVID-2019 epidemic in Shenzhen, China.

Source

European Respiratory Journal; 2020. 55(5)14 ref.

Publisher

European Respiratory Society

Location of Publisher

Sheffield

Country of Publication

UK

Abstract

The objective of the article was to analyse the epidemiology and preventive strategies in Shenzhen in order to understand the main transmission route and effective preventive strategies in cities at risk of imported cases. This may help in better preventing against the outbreak of potential respiratory infectious diseases like COVID-19 in cities with a heavy population density and a high proportion of external population. The preventive strategies can be divided into early prevention and strengthened prevention. Early preventative strategies and measures against COVID-19 included public announcement of the outbreak in Wuhan and preparation for the diagnosis and management of COVID-19 in hospitals. In conclusion, with the major outbreak of COVID-19 in nearby province of Hubei, Shenzhen, which is a city that has a high population density, a large proportion of external population and significant mobility, had consider imported cases and the risk of spreading the disease throughout the city. The implementation of early preventative strategies in Shenzhen was successful, allowing early identification of COVID-19 cases and preventing a major outbreak in Shenzhen. Early identification of imported cases, prevention of transmission through family clustering, preventative measures in public areas and very strict infection control procedures in the hospital setting were crucial to the successful control of outbreak in Shenzhen.

Publication Type

Journal article.

<499>

Accession Number

20203224502

Author

Lv Meng; Luo XuFei; Estill, J.; Liu YunLan; Ren MengJuan; Wang JianJian; Wang Qi; Zhao SiYa; Wang XiaoHui; Yang Shu; Feng Xixi; Li WeiGuo; Liu EnMei; Wang Ling; Zhou Qi; Meng WenBo; Qi XiaoLong; Xun YangQin; Yu Xuan; Chen YaoLong

Title

Coronavirus disease (COVID-19): a scoping review.

Source

Eurosurveillance; 2020. 25(15)16 ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

Background: In December 2019, a pneumonia caused by a novel coronavirus (SARS-CoV-2) emerged in Wuhan, China and has rapidly spread around the world since then. Aim: This study aims to understand the research gaps related to COVID-19 and propose recommendations for future research. Methods: We undertook a scoping review of COVID-19, comprehensively searching databases and other sources to identify literature on COVID-19 between 1 December 2019 and 6 February 2020. We analysed the sources, publication date, type and topic of the retrieved articles/studies. Results: We included 249 articles in this scoping review. More than half (59.0%) were conducted in China. Guidance/guidelines and consensus statements (n = 56; 22.5%) were the most common. Most (n = 192; 77.1%) articles were published in peer-reviewed journals, 35 (14.1%) on preprint servers and 22 (8.8%) posted online. Ten genetic studies (4.0%) focused on the origin of SARS-CoV-2 while the topics of molecular studies varied. Nine of 22 epidemiological studies focused on estimating the basic reproduction number of COVID-19 infection (R0). Of all identified guidance/guidelines (n = 35), only ten fulfilled the strict principles of evidence-based practice. The number of articles published per day increased rapidly until the end of January. Conclusion: The number of articles on COVID-19 steadily increased before 6

February 2020. However, they lack diversity and are almost non-existent in some study fields, such as clinical research. The findings suggest that evidence for the development of clinical practice guidelines and public health policies will be improved when more results from clinical research becomes available.

Publication Type

Journal article.

<500>

Accession Number

20203222615

Author

Ceribelli, A.; Motta, F.; Santis, M. de; Ansari, A. A.; Ridgway, W. M.; Gershwin, M. E.; Selmi, C.

Title

Recommendations for coronavirus infection in rheumatic diseases treated with biologic therapy.

Source

Journal of Autoimmunity; 2020. 10923 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The Coronavirus-associated disease, that was first identified in 2019 in China (CoViD-19), is a pandemic caused by a bat-derived beta-coronavirus, named SARS-CoV2. It shares homology with SARS and MERS-CoV, responsible for past outbreaks in China and in Middle East. SARS-CoV2 spread from China where the first infections were described in December 2019 and is responsible for the respiratory symptoms that can lead to acute respiratory distress syndrome. A cytokine storm has been shown in patients who develop fatal complications, as observed in past coronavirus infections. The management includes ventilatory support and broad-spectrum antiviral drugs, empirically utilized, as a targeted

therapy and vaccines have not been developed. Based upon our limited knowledge on the pathogenesis of CoViD-19, a potential role of some anti-rheumatic drugs may be hypothesized, acting as direct antivirals or targeting host immune response. Antimalarial drugs, commonly used in rheumatology, may alter the lysosomal proteases that mediates the viral entry into the cell and have demonstrated efficacy in improving the infection. Anti-IL-1 and anti-IL-6 may interfere with the cytokine storm in severe cases and use of tocilizumab has shown good outcomes in a small cohort. Baricitinib has both antiviral and anti-inflammatory properties. Checkpoints inhibitors such as anti-CD200 and anti-PD1 could have a role in the treatment of CoViD-19. Rheumatic disease patients taking immunosuppressive drugs should be recommended to maintain the chronic therapy, prevent infection by avoiding social contacts and pausing immunosuppressants in case of infection. National and international registries are being created to collect data on rheumatic patients with CoViD-19.

#### Publication Type

Journal article.

<501>

#### Accession Number

20203192573

#### Author

Wei Min; Yuan JingPing; Liu Yu

#### Title

Novel Coronavirus infection in Hospitalized infants under 1 year of age in China.

#### Source

JAMA, Journal of the American Medical Association; 2020. 323(13):1313-1314. 5 ref.

#### Publisher

American Medical Association

#### Location of Publisher

Chicago

#### Country of Publication

USA

## Abstract

For this retrospective study, we identified all hospitalized infants diagnosed with COVID-19 infection between December 8, 2019, and February 6, 2020, in China. The summary number and geographic location of new COVID-19 infections, released daily by the central government, were screened to identify infants (aged 28 days to 1 year). Nine infected infants were identified between December 8, 2019, and February 6, 2020. All patients were hospitalized. Seven patients were female. The youngest was aged 1 month and the oldest was 11 months. There were 2 patients from Beijing, 2 from Hainan, and 1 each from Guangdong, Anhui, Shanghai, Zhejiang, and Guizhou. Four patients were reported to have fever, 2 had mild upper respiratory tract symptoms, 1 had no symptoms but tested positive for COVID-19 in a designated screening because of exposure to infected family members, and 2 had no information on symptoms available. The time between admission and diagnosis was 1 to 3 days. Families of all 9 infants had at least 1 infected family member, with the infant's infection occurring after the family members' infection. Seven infants were reported to be either living in Wuhan or having family members who visited Wuhan, 1 had no direct linkage to Wuhan, and 1 had no information available. None of the 9 infants required intensive care or mechanical ventilation or had any severe complications.

## Publication Type

Journal article.

<502>

## Accession Number

20203215692

## Author

Peng ZhouJie; Wang JianHui; Mo YunBo; Duan Wei; Xiang GuangJun; Yi Ming; Bao, L.; Shi Yuan

## Title

Unlikely SARS-CoV-2 vertical transmission from mother to child: a case report.

## Source

Journal of Infection and Public Health; 2020. 13(5):818-820. 17 ref.

## Publisher

Elsevier Ltd

## Location of Publisher



Oxford

Country of Publication

UK

Abstract

As the 2019 novel coronavirus disease (COVID-19) rapidly spread across China and to more than 70 countries, an increasing number of pregnant women were affected. The vertical transmission potential of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is of great concern to the obstetrics, neonatologists, and public health agencies. Though some studies indicated the risk of vertical transmission is low, few cases have been reported with comprehensive serial tests from multiple specimens. In this case, a female preterm infant was born to a mother with confirmed COVID-19. She presented with mild respiratory distress and received general management and a short period of nasal continuous positive airway pressure support. During her stay at the hospital, a series of SARS-CoV-2 nucleic test from her throat and anal swab, serum, bronchoalveolar lavage fluid, and urine were negative. The nucleic acid test from the mother's amniotic fluid, vaginal secretions, cord blood, placenta, serum, anal swab, and breast milk were also negative. The most comprehensively tested case reported to date confirmed that the vertical transmission of COVID is unlikely, but still, more evidence is needed.

Publication Type

Journal article.

<503>

Accession Number

20203225527

Author

Amimo, F.; Lambert, B.; Magit, A.

Title

What does the COVID-19 pandemic mean for HIV, tuberculosis, and malaria control?

Source

Tropical Medicine and Health; 2020. 48(32):(13 May 2020). 25 ref.

Publisher

BioMed Central Ltd

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Location of Publisher

London

Country of Publication

UK

Abstract

Despite its current relatively low global share of cases and deaths in Africa compared to other regions, coronavirus disease 2019 (COVID-19) has the potential to trigger other larger crises in the region. This is due to the vulnerability of health and economic systems, coupled with the high burden of human immunodeficiency virus (HIV), tuberculosis (TB), and malaria. Here we examine the potential implications of COVID-19 on the control of these major epidemic diseases in Africa. We use current evidence on disease burden of HIV, TB, and malaria, and epidemic dynamics of COVID-19 in Africa, retrieved from the literature. Our analysis shows that the current measures to control COVID-19 neglect important and complex context-specific epidemiological, social, and economic realities in Africa. There is a similarity of clinical features of TB and malaria, with those used to track COVID-19 cases. This coupled with institutional mistrust and misinformation might result in many patients with clinical features similar to those of COVID-19 being hesitant to voluntarily seek care in a formal health facility. Furthermore, most people in productive age in Africa work in the informal sector, and most of those in the formal sector are underemployed. With the current measures to control COVID-19, these populations might face unprecedented difficulties to access essential services, mainly due to reduced ability of patients to support direct and indirect medical costs, and unavailability of transportation means to reach health facilities. Therefore, if not accompanied with appropriate economic and epidemiological considerations, we anticipate that these measures might result in unprecedented difficulties among vulnerable segments of society to access essential services, including antiretroviral and prophylactic drugs among people living with HIV and Acquired Immune Deficiency Syndrome, anti-tuberculosis drugs, and curative and preventive treatments for malaria among pregnant women and children. This might increase the propensity of patients taking substandard doses and/or medicines, which has the potential to compromise drug efficacy, and worsen health inequalities in the region. COVID-19 responses at country level should include measures to protect vulnerable and under-served segments of society.

Publication Type

Journal article.

<504>

Accession Number

20203225503

Author

Bwire, G. M.; Paulo, L. S.

Title

Coronavirus disease-2019: is fever an adequate screening for the returning travelers?

Source

Tropical Medicine and Health; 2020. 48(14):(9 March 2020). 17 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

On Thursday, 30 January 2020, World Health Organization declared Coronavirus disease-2019 (COVID-2019) a Public Health Emergency of International Concern. Since its identification in late December 2019 in Wuhan, Hubei Province, People's Republic of China, the number of cases imported into other countries is increasing, and the epidemiological map is changing rapidly. On the other hand, body temperature screening (fever) is the major test performed at points of entry, i.e., airports, in the returning travelers in most of the countries with limited resources. However, the recent report on asymptomatic contact transmission of COVID-19 and travelers who passed the symptoms-based screening and tested positive for COVID-19 using reverse transcription polymerase chain reaction (RT-PCR) challenges this approach as body temperature screening may miss travelers incubating the disease or travelers concealing fever during travel. On this note, travel restrictions to and from high risk areas and/or 14 days quarantine of travelers coming from high risk areas are recommended to prevent possible importation of COVID-19. Currently, RT-PCR is a reliable test in detecting both symptomatic and asymptomatic COVID-19.

Publication Type

Journal article.

<505>

Accession Number

20203226793

Author

Mortezaee, V.; Saraee, S. A. S.; Ghazanfari, M.; Khozani, M. A.; Maleki, M.; Hedayati, M. T.

Title

Invasive aspergillosis in COVID-19: a review study and recommendations for diagnostic approaches.  
[Persian]

Source

Journal of Mazandaran University of Medical Sciences; 2020. 30(184):Fa170-Fa178, En169. 35 ref.

Publisher

Mazandaran University of Medical Sciences

Location of Publisher

Sari

Country of Publication

Iran

Abstract

Background and purpose: COVID-19 is an emerging viral disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Bacterial or fungal superinfections of the lung may cause complications in clinical manifestations, treatment, and increase the mortality rate. In this article, we reviewed previous studies on invasive aspergillosis (IA) in viral infections and in adjustment with COVID-19. Also, the necessity of IA diagnosis to increase the survival rate in involved patients is discussed. Materials and methods: Electronic databases, including Pubmed, Google Scholar, and Web of Science were searched using the following keywords: COVID-19, SARS-CoV-2, influenza, invasive aspergillosis, and invasive fungal infections. Results: Reports from China showed 3.2% to 27.1% fungal co-infection in COVID-19 patients. Patients with COVID-19 who developed severe pneumonia were found with considerably higher rates of viral, bacterial, and fungal co-infections than those with mild pneumonia. Also, intestinal normal fungal flora was reported to be significantly different between COVID-19 patients and normal subjects. Conclusion: While the main focus of physicians is on bacterial superinfection control in COVID-19, ignoring life threatening fungal infections may increase the mortality rate. Therefore, we profoundly recommend early diagnosis of invasive fungal infections in COVID-19 patients.

Publication Type

Journal article.

<506>

Accession Number

20203223690

Author

Li Jun; Huang LunLun; Jun Sun; Zhou HongGuang; Zhao Yang; Han XiaoLin; Chen JianZhang; Fu QiSheng; Zhang KangLi

Title

Application of a new comprehensive military mental stress rescue mode during the outbreak of Coronavirus disease 2019. [Chinese]

Source

Academic Journal of Second Military Medical University; 2020. 41(4):420-423. 10 ref.

Publisher

Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

Shanghai

Country of Publication

China

Abstract

Coronavirus disease 2019 (COVID-19) outbreak as a public health emergency leads to panic, anxiety and other stress reactions among the frontline rescue workers and the general public. The mental health problems under the epidemic can not be ignored. We adopted a new comprehensive military mental stress rescue mode of "front+rear, online+ offline, front-line psychological screening interview+rear team intervention and counseling, psychological consultation+psychiatric drugs, psychological counselor+network engineer" to provide psychological intervention and psychological guidance for medical and rescue workers in Wuhan. The new comprehensive military mental stress rescue mode played an important role in reducing the rescue support investment and the risk of COVID-19 infection among psychological rescue workers, which could be widely used in the process of stress rescue.

Publication Type

Journal article.

<507>

Accession Number

20203223685

Author

Meng XianZe; Wan XuYing; Li JunChang; Gong XiaoLi; Liang YuQing; Gao SongKai; Xu JiPing; L&uuml; KunJu; Yue XiaoQiang

Title

Analysis on traditional Chinese medicine syndromes of 756 cases with Coronavirus disease 2019. [Chinese]

Source

Academic Journal of Second Military Medical University; 2020. 41(4):395-399. 7 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 rule of traditional Chinese medicine (TCM) syndromes of coronavirus disease 2019 (COVID-19) patients, providing guidance for clinical practice. Methods The information and syndrome of 756 cases with COVID-19 in Guanggu Branch of Maternity and Child Healthcare Hospital of Hubei Province were collected by cross sectional survey, the TCM syndrome differentiation was given by TCM experts, the syndrome characteristics were analyzed, and the relationships between syndromes and gender, age, course and severity of disease were analyzed. Results Among the 756 cases, 101 cases (13.4%) were diagnosed as cold-dampness accumulating lung syndrome, 239 cases (31.6%) were diagnosed as dampness-heat obstructing lung syndrome, 18 cases (2.4%) were diagnosed as epidemic toxin blocking lung syndrome, 195 cases (25.8%) were diagnosed as deficiency of lung and spleen Qi, 203 cases (26.9%) were diagnosed as deficiency of both Qi and Yin. The order of the median course of the TCM syndromes was: cold-dampness accumulating lung syndrome (21 d)<dampness-heat

obstructing lung syndrome (22 d)<epidemic toxin blocking lung syndrome (27 d)<both lung and spleen Qi deficiency syndrome (33 d)<both Qi and Yin deficiency syndrome (36 d). There was no significant difference in syndrome distribution among different genders ( $P > 0.05$ ). The distribution of dampness-heat obstructing lung syndrome in patients over 65 years old was significantly lower than that in patients aged 65 and under (22.4% [69/308] vs 37.9%[170/448]), while the syndrome of deficiency of lung and spleen Qi (30.2%[93/308] vs 22.8%[102/448]) and the syndrome of both Qi and Yin deficiency (34.1%[105/308] vs 21.9%[98/448]) were just the opposite. The distribution of the syndromes was correlated with the severity and the course of COVID-19 ( $P=0.01$ ,  $P < 0.01$ ). The syndrome of cold-dampness accumulating lung was relatively common in the general cases (14.1%[86/612]), while the syndrome of epidemic toxin blocking lung was more common in the severe and critical cases (6.2%[9/144]). The syndrome of cold-dampness accumulating lung was most common in the early stage (26.2%[28/107]) of COVID-19. Dampness-heat obstructing lung syndrome was common in both the early (43.9%[47/107]) and the middle stages (42.0%[116/276]). The syndrome of both lung and spleen Qi deficiency and the syndrome of both Qi and Yin deficiency were more common in the middle (21.7% [60/276], 18.1%[50/276]) and late stages (31.1%[116/373], 38.1%[142/373]). Conclusion The syndromes of COVID-19 are mostly hot and excessive in its early stage and getting into deficiency with the progress of the disease. And the syndromes are closely related to the age, severity and course of COVID-19 patients.

#### Publication Type

Journal article.

<508>

#### Accession Number

20203223684

#### Author

Wang Hui; Wang FangTao; Sun XiaoTing; Xu XiangHuai; Zhao XinXin

#### Title

Prevention against coronavirus disease 2019 in community health service centers and tertiary hospitals in Shanghai: a survey of current situation. [Chinese]

#### Source

Academic Journal of Second Military Medical University; 2020. 41(4):388-394. 18 ref.

#### Publisher

Location of Publisher

Shanghai

Country of Publication

China

Abstract

**Objective** To investigate the current status of infection control of coronavirus disease 2019 (COVID-19) in hospitals of different levels, providing strategies and suggestions for occupational infection prevention. **Methods** The frontline health workers of hospitals of different levels were selected to finish the questionnaire survey by WeChat from Mar. 2 to 9, 2020. The questionnaire was designed with "questionnaire star", including the basic information of health workers, the protection knowledge, the working environment against the epidemic, the management of medical protective products and the implementation of protective measures. **Results:** A total of 966 valid questionnaires were collected and filled out by the health workers of nine tertiary hospitals and 42 community health service centers (CHSCs) in 15 districts of Shanghai. The training rate of COVID-19 epidemic protective knowledge in CHSCs was higher than that in tertiary hospitals (90.45% [644/712] vs 79.53% [202/254]), the difference was statistically significant ( $\chi^2=20.528$ ,  $P=0.001$ ). CHSCs had better COVID-19-related knowledges of identifying the corresponding categories of patients ( $\chi^2=27.108$ ,  $P=0.009$ ), hand disinfection, wearing and taking off protective clothing ( $\chi^2=22.666$ ,  $P=0.001$ ), and correctly managing medical waste ( $\chi^2=74.251$ ,  $P=0.001$ ). During the implementation of COVID-19 protective measures, the proportion of the CHSCs that could change disposable protective clothing strictly according to needs and protection intensity was significantly higher than that in tertiary hospitals (31.74% [226/712]) vs (25.20% [64/254]) ( $\chi^2=33.229$ ,  $P=0.001$ ). However, there were no statistically significant differences in the correct implementation of patient specimen collection, the frequency of changing protective mask, and working hours in hospital every week during the epidemic (all  $P > 0.05$ ). **Conclusion:** CHSCs play an important role in the prevention of the COVID-19 epidemic. There are differences in some measures of epidemic prevention between CHSCs and tertiary hospitals. It is necessary to further improve the measures to reduce the risk of COVID-19 occupational infection in the medical institutions.

Publication Type

Journal article.

<509>

Accession Number



20203223683

Author

Zhang Jing; Shi DongChen; Sun QinYing; Nie XiaoMeng; Chen Lin; Wang DongMei; Zhao LiJun; Huang Yi; Bai Chong

Title

Independent outpatient unit mode and its role in the department of respiratory and critical care medicine during the outbreak of Coronavirus disease 2019. [Chinese]

Source

Academic Journal of Second Military Medical University; 2020. 41(4):383-387. 6 ref.

Publisher

Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

Shanghai

Country of Publication

China

Abstract

**Objective:** To introduce the independent outpatient unit mode and explore its role in the department of respiratory and critical care medicine during the outbreak of coronavirus disease 2019 (COVID-19). **Methods:** The independent outpatient unit mode of the Department of Respiratory and Critical Care Medicine in Changhai Hospital, Naval Medical University (Second Military Medical University) was started on Jan. 31, 2020 (after the Spring Festival holiday). A total of 5 377 outpatients of this department from Jan. 13, 2020 to Jan. 23, 2020 (10 working days before the Spring Festival holiday) and 702 patients from Jan. 31, 2020 to Feb. 12, 2020 (10 working days after the Spring Festival holiday) were respectively selected. There were 10 doctors and nurses who worked both before and after the operation of independent outpatient unit in our Department. Medical indicators such as the number of outpatients and the number of patients who had a COVID-19 epidemic history, infection control indicators such as spatial density of patients and protection and control of medical staff, and the psychological status of medical staff such as anxiety were compared before and after the operation of the independent outpatient unit. **Results** The number of outpatients in the Department of Respiratory and Critical Care Medicine was 5 377 before the operation of the independent outpatient unit (10 days before the Spring Festival holiday), which was 15.31% higher than that in the same period of 2019 (4 663). The number of outpatients in the 10 days after the Spring Festival holiday was 702, 86.94% lower than that before the Spring Festival, and 83.43% lower than that in the same period of 2019 (4 236). The number of patients with COVID-19 epidemic history before and after the operation of independent outpatient unit was 25 and 0, respectively ( $\chi^2=2.26$ ,  $P > 0.05$ ). The waiting time of outpatients decreased from (178.33 $\pm$ 36.24) min before operation to (8.50 $\pm$ 3.59) min after operation ( $t=10.18$ ,  $P < 0.01$ ). The total proportion of acute upper respiratory tract infection and acute bronchitis was 46.61% (2 506/5 377) and 34.90% (245/702), respectively ( $\chi^2=34.9$ ,  $P < 0.01$ ). The proportion of cough with

unknown reason was 2.42% (17/702), which was significantly lower than the former (5.41% [291/5 377]) ( $\chi^2=11.54$ ,  $P < 0.01$ ). There was no significant difference in the proportion of acute exacerbation of chronic obstructive pulmonary disease and acute attack of asthma before and after the operation of independent outpatient unit (both  $P > 0.05$ ). The proportion of prescribing medicine for chronic obstructive pulmonary disease and bronchial asthma was 29.34% (206/702), which was significantly higher than the former (15.23% [819/5 377]) ( $\chi^2=88.23$ ,  $P < 0.01$ ). The density of patients in the diagnosis and treatment area decreased from (1.85+/-0.35)/m<sup>2</sup> to (0.31+/-0.08)/m<sup>2</sup> ( $t=10.52$ ,  $P < 0.01$ ). There were 7, 7, 5 and 10, 10, 10 medical staff who followed the standard of hand hygiene and wearing mask and work cap before and after the operation of the independent outpatient unit respectively (all  $P > 0.05$ ). The anxiety score of medical staff decreased from (38.33+/-2.79) before the operation of independent outpatient unit to (33.61+/-2.38) ( $t=4.97$ ,  $P < 0.01$ ). The satisfaction of the medical staff with the protective measures increased after the operation of the independent outpatient unit than before (9 vs 4), and the difference was statistically significant ( $\chi^2=20.00$ ,  $P=0.03$ ).

Conclusion: The independent outpatient unit mode of the department of respiratory and critical care medicine is a feasible and optimized mode of outpatient service during the outbreak of COVID-19. It could meet the needs of outpatients, shorten the waiting time, and improve the occupational protection of medical staff. It is also helpful to reduce cross infection and improve the level of prevention and control of nosocomial infection.

#### Publication Type

Journal article.

<510>

#### Accession Number

20203223679

#### Author

Peng HaoRan; Jiang LiangLiang; He YanHua; Xiao AiJ; Tang HaiLin; Qi ZhongTian; Zhao Ping

#### Title

Preparation and verification of severe acute respiratory syndrome Coronavirus 2 Pseudoparticles.  
[Chinese]

#### Source

Academic Journal of Second Military Medical University; 2020. 41(4):359-364. 13 ref.

#### Publisher

Location of Publisher

Shanghai

Country of Publication

China

Abstract

Objective: To establish a method for preparing severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pseudoparticles (SARS-CoV-2 pps). Methods: The optimized sequence of spike (S) gene of SARS-CoV-2 was designed, synthesized and used to construct the mammalian cell expression plasmid. The resultant plasmid was used to transfect 293T cells, and the expressed S protein was detected using immuno-fluorescence. The S expression plasmid was further used to transfect 293T cells together with lentiviral genome backbone based pseudoparticles package plasmids containing enhanced green fluorescent protein (EGFP) reporter gene. The supernatant of 293T cells was collected and used to infect Vero E6 cells and Huh7 cells. The intracellular expression of EGFP was observed. The confirmed SARS-CoV-2 pps was used to infect Vero E6 cells, and then we observed the effects of membrane fusion inhibitors chloroquine and arbidol hydrochloride, monoclonal antibodies to S1 protein of SARS-CoV-2 and convalescent sera of patients with coronavirus disease 2019 on the pseudoparticles infection. Results: The 293T cells transfected with SARS-CoV-2 S plasmid could react with monoclonal antibodies to S1 protein of SARS-CoV-2 and convalescent sera. SARS-CoV-2 S plasmid and human immunodeficiency virus (HIV) pseudoparticles package plasmid were used to transfect 293T cells together, adding the supernatant to Vero E6 and Huh 7 cells, the intracellular expression of EGFP was observed at 36 h and 72 h, respectively. Compared with Vero E6 cells, there were more EGFP-positive cells for Huh7 cells. Two membrane fusion inhibitors, one human monoclonal antibody against SARS-CoV-2 S1 protein and two convalescence sera could effectively inhibit the infection of SARS-CoV-2 pps of Vero E6 cells. Conclusion: We have established a method for preparing SARS-CoV-2 pps, which can be used for the anti-SARS-CoV-2 drug screening and vaccine evaluation.

Publication Type

Journal article.

<511>

Accession Number

20203226705

Author

Emaheh, R. Z.; Nosrati, H.; Taheri, R. A.

Title

Combination of biodata mining and computational modelling in identification and characterization of ORF1ab polyprotein of SARS-CoV-2 isolated from oronasopharynx of an Iranian patient.

Source

Biological Procedures Online; 2020. 22(8):(21 April 2020). 80 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: Coronavirus disease 2019 (COVID-19) is an emerging zoonotic viral infection, which was started in Wuhan, China, in December 2019 and transmitted to other countries worldwide as a pandemic outbreak. Iran is one of the top ranked countries in the tables of COVID-19-infected and -mortality cases that make the Iranian patients as the potential targets for diversity of studies including epidemiology, biomedical, biodata, and viral proteins computational modelling studies. Results: In this study, we applied bioinformatic biodata mining methods to detect CDS and protein sequences of ORF1ab polyprotein of SARS-CoV-2 isolated from oronasopharynx of an Iranian patient. Then through the computational modelling and antigenicity prediction approaches, the identified polyprotein sequence was analyzed. The results revealed that the identified ORF1ab polyprotein belongs to a part of nonstructural protein 1 (nsp1) with the high antigenicity residues in a glycine-proline or hydrophobic amino acid rich domain. Conclusions: The results revealed that nsp1 as a virulence factor and crucial agent in spreading of the COVID-19 among the society can be a potential target for the future epidemiology, drug, and vaccine studies.

Publication Type

Journal article.

<512>

Accession Number

20203207452

Author

Horne, J. R.; Vohl, M. C.

Title

Biological plausibility for interactions between dietary fat, resveratrol, ACE2, and SARS-Cov illness severity.

Source

American Journal of Physiology - Endocrinology and Metabolism; 2020. 318(5):E830-E833. 45 ref.

Publisher

American Physiological Society

Location of Publisher

Bethesda

Country of Publication

USA

Abstract

The angiotensin converting enzyme-2 (ACE2) cellular receptor is responsible for the pathogenesis of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), thus impacting the entrance and clearance of the virus. Studies demonstrate that upregulation of ACE2 has a protective effect on SARS-CoV-2 illness severity. Moreover, animal studies demonstrate that dietary intake can modulate ACE2 gene expression and function. A high intake of resveratrol may have a protective role, upregulating ACE2, whereas a high intake of dietary fat may have a detrimental role, downregulating ACE2. As such, we postulate on the biological plausibility of interactions between dietary fat and/or resveratrol and ACE2 gene variations in the modulation of SARS-CoV-2 illness severity. We call to action the research community to test this plausible interaction in a sample of human subjects.

Publication Type

Journal article.

<513>

Accession Number

20203217337

Author

Ghinai, I.; McPherson, T. D.; Hunter, J. C.; Kirking, H. L.; Christiansen, D.; Joshi, K.; Rubin, R.; Morales-Estrada, S.; Black, S. R.; Pacilli, M.; Fricchione, M. J.; Chugh, R. K.; Walblay, K. A.; Ahmed, N. S.; Stoecker, W. C.; Hasan, N. F.; Burdsall, D. P.; Reese, H. E.; Wallace, M.; Wang Chen; Moeller, D.; Korpics, J.; Novosad, S. A.; Benowitz, I.; Jacobs, M. W.; Dasari, V. S.; et al.

Title

First known person-to-person transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the USA.

Source

Lancet (British edition); 2020. 395(10230):1137-1144. 22 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: Coronavirus disease 2019 (COVID-19) is a disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first detected in China in December, 2019. In January, 2020, state, local, and federal public health agencies investigated the first case of COVID-19 in Illinois, USA. Methods: Patients with confirmed COVID-19 were defined as those with a positive SARS-CoV-2 test. Contacts were people with exposure to a patient with COVID-19 on or after the patient's symptom onset date. Contacts underwent active symptom monitoring for 14 days following their last exposure. Contacts who developed fever, cough, or shortness of breath became persons under investigation and were tested for SARS-CoV-2. A convenience sample of 32 asymptomatic health-care personnel contacts were also tested. Findings: Patient 1-a woman in her 60s-returned from China in mid-January, 2020. One week later, she was hospitalised with pneumonia and tested positive for SARS-CoV-2. Her husband (Patient 2) did not travel but had frequent close contact with his wife. He was admitted 8 days later and tested positive for SARS-CoV-2. Overall, 372 contacts of both cases were identified; 347 underwent active symptom monitoring, including 152 community contacts and 195 health-care personnel. Of monitored contacts, 43 became persons under investigation, in addition to Patient 2. These 43 persons under investigation and all 32 asymptomatic health-care personnel tested negative for SARS-CoV-2. Interpretation: Person-to-person transmission of SARS-CoV-2 occurred between two people with

prolonged, unprotected exposure while Patient 1 was symptomatic. Despite active symptom monitoring and testing of symptomatic and some asymptomatic contacts, no further transmission was detected.

Publication Type

Journal article.

<514>

Accession Number

20203215484

Author

Wang, J.; Zhou, M.; Liu, F.

Title

Reasons for healthcare workers becoming infected with novel coronavirus disease 2019 (COVID-19) in China.

Source

Journal of Hospital Infection; 2020. 105(1):100-101. 8 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<515>

Accession Number

20203215443

Author

Touret, F.; Lamballerie, X. de

Title

Of chloroquine and COVID-19.

Source

Antiviral Research; 2020. 177many ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Recent publications have brought attention to the possible benefit of chloroquine, a broadly used antimalarial drug, in the treatment of patients infected by the novel emerged coronavirus (SARS-CoV-2). The scientific community should consider this information in light of previous experiments with chloroquine in the field of antiviral research.

Publication Type

Journal article.

<516>

Accession Number

20203215427



## Author

To KaiWang [To, K. K. W.]; Tsang TakYin [Tsang, O. T. Y.]; Leung WaiShing; Tam, A. R.; Wu TakChiu; Lung, D. C.; Yip ChikYan [Yip, C. C. Y.]; Cai JianPiao; Chan ManChun [Chan, J. M. C.]; Chik ShiuHong [Chik, T. S. H.]; Lau PuiLing [Lau, D. P. L.]; Choi YauChung [Choi, C. Y. C.]; Chen LinLei; Chan WanMui; Chan KwokHung; Ip, J. D.; Ng ChinKi [Ng, A. C. K.]; Poon WingShan [Poon, R. W. S.]; Luo CuiTing; Cheng ChiChung [Cheng, V. C. C.]; Chan FukWoo [Chan, J. F. W.]; Hung FanNgai [Hung, I. F. N.]; Chen ZhiWei; Chen HongLin; Yuen KwokYung

## Title

Temporal profiles of viral load in posterior oropharyngeal saliva samples and serum antibody responses during infection by SARS-CoV-2: an observational cohort study.

## Source

Lancet Infectious Diseases; 2020. 20(5):565-574. 32 ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

Background: Coronavirus disease 2019 (COVID-19) causes severe community and nosocomial outbreaks. Comprehensive data for serial respiratory viral load and serum antibody responses from patients infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) are not yet available. Nasopharyngeal and throat swabs are usually obtained for serial viral load monitoring of respiratory infections but gathering these specimens can cause discomfort for patients and put health-care workers at risk. We aimed to ascertain the serial respiratory viral load of SARS-CoV-2 in posterior oropharyngeal (deep throat) saliva samples from patients with COVID-19, and serum antibody responses. Methods: We did a cohort study at two hospitals in Hong Kong. We included patients with laboratory-confirmed COVID-19. We obtained samples of blood, urine, posterior oropharyngeal saliva, and rectal swabs. Serial viral load was ascertained by reverse transcriptase quantitative PCR (RT-qPCR). Antibody levels against the SARS-CoV-2 internal nucleoprotein (NP) and surface spike protein receptor binding domain (RBD) were measured using EIA. Whole-genome sequencing was done to identify possible mutations arising during infection. Findings: Between Jan 22, 2020, and Feb 12, 2020, 30 patients were screened for inclusion, of whom 23 were included (median age 62 years [range 37-75]). The median viral load in posterior oropharyngeal saliva or other respiratory specimens at presentation was 5.2 log<sub>10</sub> copies per mL (IQR 4.1-7.0). Salivary viral load was highest during the first week after symptom onset and subsequently declined with time (slope -0.15, 95% CI -0.19 to -0.11; R<sup>2</sup>=0.71). In one patient, viral RNA was detected 25 days after symptom onset. Older age was correlated with higher viral load (Spearman's rho=0.48, 95% CI 0.074-0.75; p=0.020). For 16 patients with serum

samples available 14 days or longer after symptom onset, rates of seropositivity were 94% for anti-NP IgG (n=15), 88% for anti-NP IgM (n=14), 100% for anti-RBD IgG (n=16), and 94% for anti-RBD IgM (n=15). Anti-SARS-CoV-2-NP or anti-SARS-CoV-2-RBD IgG levels correlated with virus neutralisation titre ( $R^2 > 0.9$ ). No genome mutations were detected on serial samples. Interpretation: Posterior oropharyngeal saliva samples are a non-invasive specimen more acceptable to patients and health-care workers. Unlike severe acute respiratory syndrome, patients with COVID-19 had the highest viral load near presentation, which could account for the fast-spreading nature of this epidemic. This finding emphasises the importance of stringent infection control and early use of potent antiviral agents, alone or in combination, for high-risk individuals. Serological assay can complement RT-qPCR for diagnosis.

Publication Type

Journal article.

<517>

Accession Number

20203215419

Author

Yan, G.; Lee ChunKiat; Lam LawrenceTM; Yan, B.; Chua YingXian; Lim AnitaYN; Phang KeeFong; Kew GuanSen; Teng Hazel; Ngai ChinHong; Lin Li; Foo RuiMin; Pada, S.; Ng LeeChing; Tambyah, P. A.

Title

Covert COVID-19 and false-positive dengue serology in Singapore.

Source

Lancet Infectious Diseases; 2020. 20(5):536-536. 6 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<518>

Accession Number

20203222757

Author

Hala&ccedil;li, B.; Kaya, A.; Topeli, A.

Title

Critically ill COVID-19 patient. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):585-591. 25 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Coronavirus disease 2019 (COVID-19) stands out as the major pandemic that we have experienced in the last century. As it affects every social structure, it brought the importance of intensive care support once again to the agenda of healthcare system after causing severe acute respiratory syndrome. The precautions to be taken against this virus, where our knowledge is extremely small, intensive care units take an indispensable place in pandemic planning. In this review, we aimed to emphasize the crucial points regarding intensive care management of COVID-19 patients, which we have written not only for intensivists but also for all healthcare professionals.

Publication Type

Journal article.

<519>

Accession Number

20203222755

Author

G&uuml;ner, R.; Hasano&gbreve;lu, &ldot;; Akta&scdil;, F.

Title

COVID-19: prevention and control measures in community. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):571-577. 16 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

On January 30, 2020, the WHO declared the COVID-19 outbreak a public health emergency of international concern and, in March 2020, began to characterize it as a pandemic in order to emphasize the gravity of the situation and urge all countries to take action in detecting infection and preventing spread. Unfortunately, there is no medication that has been approved by the FDA, gone through controlled studies and demonstrated an effect on the virus for this global pandemic. Although there are cures for illnesses and developments made by leaps and bounds in our day, the strongest and most effective weapon that society has against this virus that is affecting not just health but also economics, politics, and social order, is the prevention of its spread. The main points in preventing the spread in society are hand hygiene, social distancing and quarantine. With increased testing capacity, detecting more COVID-19 positive patients in the community will also enable the reduction of secondary cases with stricter quarantine rules.

Publication Type

Journal article.

<520>

Accession Number

20203222750

Author

&Scedil;encan, &ldot;; Kuzi, S.

Title

Global threat of COVID 19 and evacuation of the citizens of different countries. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):534-543. 6 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Beginning from China on December 2019, COVID-19 epidemic has spreaded all over the world in a short period of time and has been a pandemic. In challenge with this pandemic quarantine technique has been used widely after tens of years. In the course of the pandemic, many countries evacuated their citizens from affected regions and combined the evacuation with quarantine process. Some examples of these countries who evacuated their citizens are Germany, Italy, Spain, and USA. In further times, during the course of pandemic, according to spread, other countries evacuated their citizens from these countries too. Despite being the origin of the pandemic, in later times Wuhan was also a place where people were evacuated to. Evacuation and quarantine have caused social and psychological impacts on people and some of them took place in mainstream media. In this review article, evacuation and quarantine processes as well as the society's reactions to these, have been compiled.

Publication Type

Journal article.

<521>

Accession Number

20203222749

Author

C&tail;etin, C.; Kara, A.

Title

Global surveillance, travel, and trade during a pandemic. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):527-533. 27 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Pandemics have had very important consequences in human history. Lots of people lost their lives and countries have been intensively affected in terms of socioeconomic problems. Unfortunately, avoidance of pandemics and limiting the spread are still currently not always possible. Maybe the most important factor for this is the increasing frequency of traveling. Increasing airline traveling rate also increases the rate of spread. Global organizations like the World Health Organization and United Nations are trying to play a supreme role over the countries. Pandemics do not have borders; therefore, efforts should be given globally, definition of pandemic should be established as soon as possible, and protective measures should be shared with countries. If these are not done, severe health consequences and serious economic problems are inevitable.

Publication Type

Journal article.

<522>

Accession Number

20203222747

Author

Ak&inodot;n, L.; G&ouml;zel, M. G.

Title

Understanding dynamics of pandemics. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):515-519. 21 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Along the centuries, novel strain of virus such as influenza produces pandemics which increase illness, death and disruption in the countries. Spanish flu in 1918, Asian flu in 1957, Hong Kong flu in 1968 and swine flu in 2009 were known pandemic which had various characteristics in terms of morbidity and mortality. A current pandemic is caused by novel corona virus originated from China. COVID-19 pandemic is very similar to Spanish, Hong Kong, Asian and swine influenza pandemics in terms of spreading to world by the mobilized people. Burden of pandemic is considered in terms of disease transmissibility and the growth rate of epidemic and duration of pandemic can be calculated by transmissibility characteristic. The case definition, finding out cases and first case cluster, proper treatment, sufficient stockpiles of medicine and population cooperation with the containment strategy should be considered for reduction of burden of pandemic.

Publication Type

Journal article.

<523>

Accession Number

20203222745

Author

Tufan, Z. K.; Kayaaslan, B.

Title

Crushing the curve, the role of national and international institutions and policy makers in COVID-19 pandemic. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):495-508. 7 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Nobody can be fully prepared to a pandemic. Of course there are signs of it, the scientists can predict, alarming speeches can be made. But there are always alarmist people around, maybe that is why sometimes even the most serious warnings may be not considered by the authorities on time. The first patients may be lost without a proper diagnosis. When everybody realizes that there may be a big problem in the horizon, sometimes it is too late. That is why it is very important to monitor contagious diseases and follow the warnings and releases of national and international disease control centers and other related organizations. China celebrated Lunar New Year with more than 40 thousand families on the 18 of January 2020. Nobody seem to be expecting this emerging new viral pneumonia outbreak appeared in Wuhan, in the last days of 2019, will break the chains and turn out to be a pandemic! But maybe this time it was not too late. There were four important pandemics within the last century: Spanish Flu, Hong Kong Flu, Asian Flu and Swine Flu. Each left different story behind. Millions of people had infected, hundreds, thousands of people died. This time, the Modern World had different tools to



limit the SARS CoV2 outbreak. The national and international institutions of our globe were all communicating and taking precautions in a very fast manner than ever. However, this time, unexpectedly, the SARS-CoV-2 contagion was also faster. Besides the international organizations like WHO, UNESCO and UNICEF, the roles of local authorities, health ministries, disease control centers, health protection agencies, research centers and universities are all very important in different operational levels to control and survive from the pandemic. This paper will review the immediate response of different national and international institutions and authorities to COVID-19 pandemic.

Publication Type

Journal article.

<524>

Accession Number

20203222744

Author

Demirbilek, Y.; Pehlivan, G.; Zenginler, Z.; Meşeli, E. A.

Title

COVID-19 outbreak control, example of ministry of health of Turkey. (Special Issue: COVID-19 pandemic.)

Source

Turkish Journal of Medical Sciences; 2020. 50(SI-1):489-494. 10 ref.

Publisher

Scientific and Technological Research Council of Turkey (TUBITAK)

Location of Publisher

Ankara

Country of Publication

Turkey

Abstract

Our first COVID-19 case in Turkey was a 44-year-old male who referred to the hospital on March 9, 2020. The first related death occurred on March 17, 2020. Preparedness for the pandemic has been

ongoing before the first case was detected. The National Pandemic Plan was published in 2006. The Pandemic Influenza National Preparedness Plan was available after being updated in light of experiences gained during the 2009 Influenza A pandemic. Accordingly, Pandemic Coordination Boards and Operation Centers have been established on the national and provincial levels. This was an adaptable plan to the Novel Coronavirus Disease (COVID-19). We formed teams to work on a 24/7 basis and established a Scientific Committee at the Public Health Emergency Operation Center within the General Directorate of Public Health. "COVID-19 Risk Assessment", "COVID-19 Guideline" and "Case Report Form", regulations of personal protective equipment along with need-based guidelines, treatment algorithms, brochures and related documents have been released. For the case-based follow-up, Public Health Management System (HSYS) is being used. PCR and rapid diagnostic kits are being used to analyze the samples at the central Microbiology Reference Laboratory and the authorized laboratories in several provinces. Various preventive measures were implemented including flight restrictions to certain countries, gradually expanded to suspending all flights and prohibiting the entry of foreign nationals, 14-day isolation and symptom monitoring for those that came from countries under risk. Persons with chronic diseases have been granted an administrative leave, on campus education at schools and activities of public rest and entertainment areas were temporarily suspended. The measures have been implemented for penitentiary institutions, dormitories, nursing homes, public transport and intercity buses, and also weekend curfews are implemented. In accordance with the pandemic plan, actions have been carried out with a multi-sectoral approach, and preventive measures have been implemented to cover the society as a whole.

#### Publication Type

Journal article.

<525>

#### Accession Number

20203203911

#### Author

Wang Rui; Peng YanZhen; Jiang YuFeng; Gu JianWen

#### Title

Managing chronic wounds during novel coronavirus pneumonia outbreak.

#### Source

Burns & Trauma; 2020. 8(tkaa016)8 ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The sudden outbreak of COVID-19 makes the management of chronic wounds more difficult. Among the chronic wound patients recorded from January 2018 to January 2019, the number of patients over 50 years old accounted for 76.74%, of which 78.25% were complicated with underlying diseases [3]. Among the underlying diseases of chronic wound patients, the top four diseases were diabetes, cardiovascular and cerebrovascular diseases, hypertension and respiratory diseases. The basic diseases and older age are the susceptibility factors of the COVID-19, as announced by the National Health Commission. Therefore, the conflict between the need for managing wound and the risk of suffering communicable disease during the prevention and control of COVID-19 appears to be a particular dilemma for patients with chronic wounds. In summary, it is an ideal way to manage chronic wound by modern dressing, facilitating technology such as negative pressure wound therapy and telemedicine to maintain effective therapy as the flow chart, and meanwhile to avoid the exposure risk of COVID-19 during the critical COVID-19 pandemic prevention and control period. This managing strategy would also be applied in treating patients in earthquake, plague, and other inconvenient situation.

Publication Type

Correspondence.

<526>

Accession Number

20203219058

Author

Ezeibe, M.; Onyeachonam, F.; Ogbonna, I.; Akpan, C.; Sanda, M.; Kalu, E.; Njoku, N.; Udobi, M.; Agu, U.

Title

Reducing side effects of chloroquine with Medicinal synthetic aluminum-magnesium silicate [Msams:  $Al_4(SiO_4)_3 + 3 mg_2SiO_4 \rightarrow 2Al_2Mg_3(SiO_4)_3$ ] before assessing its anti-Vovid-19 efficacy.

Source

Health; 2020. 12(4):368-377. 25 ref.

Publisher

Scientific Research Publishing

Location of Publisher

Irvine

Country of Publication

USA

Abstract

To reduce Chloroquine's (CQ) side effects, so that increasing its duration for anti-Covid-19 trials could be safe, the drug was potentiated by stabilizing it with Medicinal synthetic Aluminum-magnesium silicate (MSAMS). CQ-treatment for five Plasmodium berghe-infected mice-groups were: 7 mg/kg (normal dose); 7 mg/kg (CQ-MSAMS); 7 mg/kg (CQ-MSAMS + B-vitamins), 5.25 mg/kg (CQ-MSAMS + B-vitamins) and the control. Means of parasitaemia, 42.00 +/- 15.74 of the normal-dose group, 37.22 +/- 11.88 of the 7 mg/kg (CQ-MSAMS) group and 33.57 +/- 12.62 of the 7 mg/kg (CQ-MSAMS + B-vitamins) group showed no significant ( $P \geq 0.05$ ) reduction from 52.50 +/- 11.99 of the control, but the 5.25 mg/kg (CQ-MSAMS + B-vitamins) dose, cleared ( $P \leq 0.01$ ) the parasitemia (00.00 +/- 00.00), showing that MSAMS-potentiated Chloroquine, has best efficacy at 75% of the recommended dose. Fever and anemia were absent at that 5.25 mg/kg, suggesting that lower doses of CQ have reduced side effects.

Publication Type

Journal article.

<527>

Accession Number

20203209422

Author

Xu BaoLi; Guan JiaLiang; Chao Shu; Yu Tao; Luo Feng; Cao XueLei; Wang YongBin; Zhou ChangYong

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Title

Research progress of new coronavirus COVID-19. [Chinese]

Source

Chinese Journal of Nosocomiology; 2020. 30(6):839-844.

Publisher

Editorial Board of Chinese Journal of Nosocomiology

Location of Publisher

Beijing

Country of Publication

China

Abstract

Coronavirus is a common and ancient virus family. The coronaviruses have led to outbreaks and epidemic among the population for many times until recent now, including the severe acute respiratory syndrome coronavirus(SARS-CoV) causing severe acute respiratory syndrome in 2003, human coronavirus NL63(HCoV-NL63) found in 2004, human coronavirus HPU1(HCoV-HKU1) found in 2005, coronavirus causing Middle East Respiratory Syndrome(MERS-CoV) in 2012 and novel coronavirus(2019-nCoV) causing COVID-19 in China in Dec, 2019. The novel coronavirus has been officially named as 2019-nCoV by the International Committee for the Classification of Viruses. The coronavirus is widely present in bats and is also found in birds, cats, dogs, pigs, mice, horses, whales, pangolins and humans. The epidemics that were caused by the virus have attracted the attention of people from all walks of life, the diseases caused by the virus aroused severe panic. The study of its etiology may facilitate the understanding of the causes for the epidemic and control the spread of the virus.

Publication Type

Journal article.

<528>

Accession Number

20203209419

Author

Zhuang YingJie; Chen Zhu; Li Jin; Yang XingLong; Li Jing; Yuan Yue; Guan Qun; Jia HongJun; Ma JingYi; Wu Dan; Ma HongBin; Tang ZiRong

Title

Clinical and epidemiological characteristics of 26 patients diagnosed with COVID-19. [Chinese]

Source

Chinese Journal of Nosocomiology; 2020. 30(6):826-829.

Publisher

Editorial Board of Chinese Journal of Nosocomiology

Location of Publisher

Beijing

Country of Publication

China

Abstract

**OBJECTIVE:** To analyze the clinical and epidemiological characteristics of patients diagnosed with COVID-19 so as to provide scientific basis for formulating prevention and control strategies and measures. **METHODS:** According to the Program of Epidemiological Investigation on Cases of Pneumonia Caused by Novel Coronavirus Infection in the third edition of the Program of Prevention and Control of Pneumonia Caused by Novel Coronavirus Infection by the National Health Commission, an epidemiological survey was conducted for the 26 patients who were diagnosed with NCP and have been treated in the Fifth Medical Center of Chinese PLA General Hospital since Jan. 2020. **RESULTS** The ratio of male to female was 2.25:1; 25 cases were Han Nationality; 22(84.62%) cases were more than 18 years old; 11(42.31%) cases were enterprise and company personnel, technicians and students; 15(57.69%) cases were from Beijing, 6(23.08%) cases were from Hubei province; 14(53.85%) cases had the history of travel to Wuhan, 13(50.00%) had the history of residence in Wuhan; there were 10(38.46%) cases who lived with confirmed patients and 12(46.15%) cases who had the history of contact with confirmed patients. 11(42.31%) cases had onset of the disease due to aggregation. There were 20(76.92%) cases of fever, 14(53.85%) cases of weakness and 8(30.77%) cases of dry cough. **CONCLUSION:** The male patients are dominant among the confirmed patients, the people aged more than 40 years old are the population group at high risk of the disease. Most of the early confirmed cases in Beijing have the history of travel to Wuhan and the history of close contact with people from Wuhan. Nearly half of the patients present with the clustering onset of the disease due to their living together and closely contacting with confirmed patients. Back.

Publication Type

Journal article.

<529>

Accession Number

20203209418

Author

Chen Zhu; Zhuang YingJie; Li Jin; Yang XingLong; Li Jing; Feng Yu; Tang ZiRong; Yuan Yue; Guan Qun; Jia HongJun; Hu Mei; Ma JingYi; Ji JunSheng

Title

Medical management of hospitals designated for patients with COVID-19. [Chinese]

Source

Chinese Journal of Nosocomiology; 2020. 30(6):821-825. 10 ref.

Publisher

Editorial Board of Chinese Journal of Nosocomiology

Location of Publisher

Beijing

Country of Publication

China

Abstract

OBJECTIVE: COVID-19 is characterized by fast spread, wide range of spread and high mortality rate, which leads to the increase of difficulty in the prevention and control and risk of the medical treatment. The ordinary hospital management model no longer meets the requirements for the progression of the epidemic, the medical institutions are facing brand new challenges in medical treatment, prevention and control. The hospital is the place for treatment and also the source of nosocomial cross infection, it is the top priority for the medical institutions to orderly conduct the treatment, eliminate hidden danger of the epidemic and reduce the risk of nosocomial infection. METHODS: As the hospital designated for treatment of the patients with COVID-19 in Beijing and the troops stationed in Beijing, The Fifth Medical Center of Chinese PLA General Hospital possesses the practical experience in combating with SARS, influenza A and Ebola virus disease and carries out the work by focusing on the reception task based on early warning response, establishment of coping treatment agencies, mobilization of group training, management of fever clinic and isolation sections, general(outpatient) wards, patients and front-line medical staff as well as disposal of medical waste. RESULTS: The medical treatment was carried out in a orderly manner, and the scientific rules and regulations for prevention and control of the epidemic were implemented. CONCLUSION: The implementation of the above strategies and measures enables

the timely reception and scientific treatment and achieves a phased objective in prevention of nosocomial cross infection, which lays a solid foundation for realizing the 'zero infection of the staff' and 'zero cross infection of patients'.

Publication Type

Journal article.

<530>

Accession Number

20203207596

Author

Zhanga, S. X.; Huang Hao; Wei Feng

Title

Geographical distance to the epicenter of Covid-19 predicts the burnout of the working population: ripple effect or typhoon eye effect?

Source

Psychiatry Research; 2020. 2885 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Covid-19 originated in Wuhan and rippled across China. We investigate how the geographical distance of working adults to the epicenter of Wuhan predicts their burnout - emotional, physical and mental exhaustion due to excessive and prolonged stress. Preliminary results of a survey of 308 working adults in 53 cities showed working adults' distance to the epicenter of Wuhan had an inverted U-shaped relationship with their burnout. Such results help to identify regions where people may need more psychiatric assistance, with direct implications for healthcare practitioners and policymakers.



Publication Type

Correspondence.

<531>

Accession Number

20203207594

Author

Lima, N. N. R.; Souza, R. I. de; Feitosa, P. W. G.; Moreira, J. L. de S.; Silva, C. G. L. da; Rolim Neto, M. L.

Title

People experiencing homelessness: their potential exposure to COVID-19.

Source

Psychiatry Research; 2020. 28816 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: Insufficient housing quality is associated with stress and mental health impacts. Crowding, pollution, noise, inadequate lighting, lack of access to green spaces, and other environmental factors associated with slums can exacerbate mental health disorders, including depression, anxiety, violence, and other forms of social dysfunction. Method: The studies were identified using large-sized newspapers with international circulation. Results: Experts say that people who sleep in shelters or on the streets already have lower life expectancy, suffer from addiction, and have underlying health conditions that put them at greater risk should they develop the virus. There are just so many competing and unmet needs, which makes it much harder for homeless to contend with all of this. If exposed, people experiencing homelessness might be more susceptible to illness or death due to the prevalence of underlying physical and mental medical conditions and a lack of reliable and affordable health care.

Nevertheless, without an urgent solution, people experiencing homelessness will remain in limbo. Conclusions: Many people living on the streets already have a diminished health condition, higher rates of chronic illnesses or compromised immune systems, all of which are risk factors for developing a more serious manifestation of the coronavirus infection. Those suffering from mental illness may have difficulty in recognizing and responding to the threat of infection. Homeless people have less access to health care providers who could otherwise order diagnostic testing and, if confirmed, isolate them from others in coordination with local health departments.

Publication Type

Correspondence.

<532>

Accession Number

20203207593

Author

Xu Jian; Xu QianHui; Wang ChangMing; Wang Jun

Title

Psychological status of surgical staff during the COVID-19 outbreak.

Source

Psychiatry Research; 2020. 2882 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which appeared in early December 2019, had an atypical viral pneumonia outbreak in Wuhan, Hubei, China. And there is a high risk of global proliferation and impact. The sudden increase in confirmed cases has brought tremendous

stress and anxiety to frontline surgical staff. The results showed that the anxiety and depression of surgical staff during the outbreak period were significantly higher and mental health problems appeared, so psychological interventions are essential.

Publication Type

Correspondence.

<533>

Accession Number

20203207589

Author

Neto, M. L. R.; Almeida, H. G.; Esmeraldo, J. D.; Nobre, C. B.; Pinheiro, W. R.; Oliveira, C. R. T. de; Costa Sousa, I. da; Lima, O. M. M. L.; Lima, N. N. R.; Moreira, M. M.; Lima, C. K. T.; Gonçães, J.; Lima Silva, C. G. da

Title

When health professionals look death in the eye: the mental health of professionals who deal daily with the 2019 coronavirus outbreak.

Source

Psychiatry Research; 2020. 28822 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: : The fact that COVID-19 is transmissible from human to human and associated with high morbidity and potentially fatality can intensify the perception of personal danger. In addition, the foreseeable shortage of supplies and an increasing flow of suspected and real cases of COVID-19 contribute to the pressures and concerns of health professionals. Method: : The studies were identified

in well-known international journals found in two electronic databases: Scopus and Embase. The data were cross-checked with information from the main international newspapers. Results: : Work-related stress is a potential cause of concern for health professionals. It has been associated with anxiety including multiple clinical activities, depression in the face of the coexistence of countless deaths, long work shifts with the most diverse unknowns and demands in the treatment with patients with COVID-19. Therefore, it is an important indicator of psychic exhaustion. Conclusions: : As coronavirus cases increase and deaths surge in Italy, new figures show an "enormous" level of contagion among the country's medical personnel. At least 2,629 health workers have been infected with coronavirus since the outbreak onset in February, representing 8.3% of total cases. The percentage of infected health workers has almost doubled the number registered in China throughout the epidemic. Intensive care unit physicians are on their stress limit, especially when dealing with older patients and with death prospects. Doctors, not a relative, are inevitably the last people a dying COVID-19 patient will see.

Publication Type

Correspondence.

<534>

Accession Number

20203207586

Author

Huang YeEn; Zhao Ning

Title

Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey.

Source

Psychiatry Research; 2020. 28830 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

## Abstract

China has been severely affected by Coronavirus Disease 2019(COVID-19) since December, 2019. We aimed to assess the mental health burden of Chinese public during the outbreak, and to explore the potential influence factors. Using a web-based cross-sectional survey, we collected data from 7,236 self-selected volunteers assessed with demographic information, COVID-19 related knowledge, generalized anxiety disorder (GAD), depressive symptoms, and sleep quality. The overall prevalence of GAD, depressive symptoms, and sleep quality of the public were 35.1%, 20.1%, and 18.2%, respectively. Younger people reported a significantly higher prevalence of GAD and depressive symptoms than older people. Compared with other occupational group, healthcare workers were more likely to have poor sleep quality. Multivariate logistic regression showed that age (< 35 years) and time spent focusing on the COVID-19 (>= 3 hours per day) were associated with GAD, and healthcare workers were at high risk for poor sleep quality. Our study identified a major mental health burden of the public during the COVID-19 outbreak. Younger people, people spending too much time thinking about the outbreak, and healthcare workers were at high risk of mental illness. Continuous surveillance of the psychological consequences for outbreaks should become routine as part of preparedness efforts worldwide.

## Publication Type

Journal article.

<535>

## Accession Number

20203207585

## Author

Tian FangYuan; Li HongXia; Tian ShuiCheng; Yang Jie; Shao Jiang; Tian ChenNing

## Title

Psychological symptoms of ordinary Chinese citizens based on SCL-90 during the level I emergency response to COVID-19.

## Source

Psychiatry Research; 2020. 288many ref.

## Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The World Health Organization (WHO) has declared that the Corona Virus (COVID-19) has become a global pandemic. This study aimed to investigate the psychological symptoms of ordinary Chinese citizens during the Level I Emergency Response throughout China. From January 31 to February 2 2020, an online questionnaire, Symptom Checklist 90 (SCL-90) was designed, and differences in GSI T-scores among subgroups were examined by ANOVA. Based on a cut-off point of the GSI T-scores of 63, the overall sample was divided into high and low-risk groups. of the 1,060 participants investigated in China, more than 70% of them have moderate and higher level of psychological symptoms specifically elevated scores for obsessive compulsion, interpersonal sensitivity, phobic anxiety, and psychoticism. There were no significant differences between males and females. Those who were of over 50 years old, had an undergraduate education and below, were divorced or widowed, and agricultural workers had significantly more symptoms. However, significantly more minors and medical staff were in the high-risk group. These results show that COVID-19 has a significant adverse socio-psychological influence on ordinary citizens. Therefore, governments should equip psychological health departments and pay attention to the people who are in high-risk groups, providing psychological interventions and assistance.

Publication Type

Journal article.

<536>

Accession Number

20203207562

Author

Lima, C. K. T.; Medeiros Carvalho, P. M. de; Araújo Araruna Silva Lima, I. de; Oliveira Nunes, J. V. A. de; Saraiva, J. S.; Souza, R. I. de; Silva, C. G. L. da; Rolim Neto, M. L.

Title

The emotional impact of coronavirus 2019-nCoV (new coronavirus disease).

Source

Psychiatry Research; 2020. 28714 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: A novel form of Coronavirus (2019-nCoV) in Wuhan has created a confused and rapidly evolving situation. In this situational framework, patients and front-line healthcare workers are vulnerable. Method: Studies were identified using large-circulation international journals found in two electronic databases: Scopus and Embase. Results: Populations of patients that may require tailored interventions are older adults and international migrant workers. Older adults with psychiatric conditions may be experiencing further distress. The COVID-19 epidemic has underscored potential gaps in mental health services during emergencies. Conclusions: Most health professionals working in isolation units and hospitals do not receive any training for providing mental health care. Fear seems more certainly a consequence of mass quarantine.

Publication Type

Correspondence.

<537>

Accession Number

20203206846

Author

Farahani, R. H.; Gholami, M.; Hazrati, E.; Rouzbahani, N. H.; Hejripour, Z.; Soleiman-Meigooni, S.; Dadmanesh, M.; Noorifard, M.; Kargar, J.; Motavalli, F.; Laripour, R.; Nourmohammadi, A.; Zargar, S.

Title

Clinical features of ICU admitted and intubated novel corona virus-infected patients in Iran.

Source

Archives of Clinical Infectious Diseases; 2020. 15(2)16 ref.

Publisher

Kowsar Medical Publishing

Location of Publisher

Heerlen

Country of Publication

Netherlands

Abstract

Background: Recently, a novel coronavirus was reported from Wuhan, Hubei Province, China. The novel coronavirus infection was spread from China to other countries, including Iran. Objectives: We report the clinical characteristics, laboratory findings, and chest exams of infected patients. Methods: All patients suspected to the novel coronavirus were hospitalized in a special airborne protection room. We collected and analyzed the characteristics of confirmed patients by data extraction from electronic medical records. Results: The Computerized Tomography (CT) scan and radiography results showed ground glass in the lung of patients, and real-time PCR confirmed the infection. The myocardial and liver function tests showed abnormalities in infected patients. Conclusions: Most patients admitted to the Intensive Care Unit (ICU) showed respiratory problems, and their infection was confirmed by virological tests and chest images. The main reason for the patient's death was the signs of acute heart failure, such as hypotension and cardiac arrhythmia.

Publication Type

Journal article.

<538>

Accession Number

20203206843

Author

Shamszadeh, S.; Parhizkar, A.; Mardani, M.; Asgary, S.

Title



Dental considerations after the outbreak of 2019 Novel Coronavirus disease: a review of literature.

Source

Archives of Clinical Infectious Diseases; 2020. 15(2)43 ref.

Publisher

Kowsar Medical Publishing

Location of Publisher

Heerlen

Country of Publication

Netherlands

Abstract

In late December 2019, a new type of coronavirus, called novel coronavirus disease 2019 (COVID-19), caused a major outbreak of severe pneumonia in Wuhan (Huanan seafood market) and then, across China. As of 31 March 2020, COVID-19 has spread in 200 countries, including Iran, and imposed serious health-related threats to the public worldwide. Fever, dry (non-productive) cough, myalgia, and pneumonia seem to be the symptoms of COVID-19 disease. To date, and despite various studies and investigations, except for chloroquine and hydroxychloroquine, which have recently been temporarily approved by FDA, no other vaccines and/or antiviral agents have been clinically endorsed for the treatment of COVID-19 disease. Nevertheless, prevention of the disease and control of the infection is deemed a top priority for the general public. Owing to the characteristics of different dental treatments and settings, the risk of virus transmission can be considered high between patients and dental practitioners. Therefore, the need for strict and tough effective infection control protocols in dental practice is of great importance, namely for the dental centers in the potentially affected areas with COVID-19. This study, based on relevant evidence, aimed to review the basic knowledge of COVID-19 and address the recommended protocols of infection control for the dental practitioners and treatments in hypothetically stricken areas.

Publication Type

Journal article.

<539>

Accession Number

20203192999

Author

Zhang YingFei; Ma ZhengFeei

Title

Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: a cross-sectional study.

Source

International Journal of Environmental Research and Public Health; 2020. 17(7)16 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Our study aimed to investigate the immediate impact of the COVID-19 pandemic on mental health and quality of life among local Chinese residents aged  $\geq 18$  years in Liaoning Province, mainland China. An online survey was distributed through a social media platform between January and February 2020. Participants completed a modified validated questionnaire that assessed the Impact of Event Scale (IES), indicators of negative mental health impacts, social and family support, and mental health-related lifestyle changes. A total of 263 participants (106 males and 157 females) completed the study. The mean age of the participants was  $37.7 \pm 14.0$  years, and 74.9% had a high level of education. The mean IES score in the participants was  $13.6 \pm 7.7$ , reflecting a mild stressful impact. Only 7.6% of participants had an IES score  $\geq 26$ . The majority of participants (53.3%) did not feel helpless due to the pandemic. On the other hand, 52.1% of participants felt horrified and apprehensive due to the pandemic. Additionally, the majority of participants (57.8-77.9%) received increased support from friends and family members, increased shared feeling and caring with family members and others. In conclusion, the COVID-19 pandemic was associated with mild stressful impact in our sample, even though the COVID-19 pandemic is still ongoing. These findings would need to be verified in larger population studies.

Publication Type

Journal article.

<540>

Accession Number

20203213148

Author

Wan MeiXu; Zhang YanXin; Li DeKun; Song MeiZhen; Ju AiChun; Yan KaiJing; Yu BoYang

Title

Feasibility of Yiqi Fumai lyophilized injection in treatment of novel coronary pneumonia (COVID-19) patients combined with cardiovascular disease. [Chinese]

Source

Drug Evaluation Research; 2020. 43(3):384-391. many ref.

Publisher

Drug Evaluation Research

Location of Publisher

Tianjin

Country of Publication

China

Abstract

As the rapid outbreak of epidemic novel coronavirus pneumonia (COVID-19) in China, National Health Commission of People's Republic of China and National Administration of Traditional Chinese Medicine have launched different programs of diagnosis and treatment. Currently, combining the clinical characteristics of critically patients, the syndrome differentiation of traditional Chinese medicine maintain that Qi-Yin deficiency is one of the main syndrome types, and Shengmai Powder is the main alternative Chinese traditional medicine. Yiqi Fumai lyophilized Injection (YQFM) is a modern preparation derived from Shengmai Powder. In the present study, we explored the potential pathological process of COVID-19. Meanwhile, the pharmacological effects as well as the possibility of clinical application of YQFM for the treatment of COVID-19 patients with cardiovascular diseases were also evaluated. This review will provide evidences for clinicians and patients in the treatment of COVID-19 using Chinese traditional treatment.

Publication Type

Journal article.

<541>

Accession Number

20203217416

Author

Sahraei, Z.; Shabani, M.; Shokouhi, S.; Saffaei, A.

Title

Aminoquinolines against coronavirus disease 2019 (COVID-19): chloroquine or hydroxychloroquine.

Source

International Journal of Antimicrobial Agents; 2020. 55(4)7 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

The objective of the article was to examine the efficacy and mode of action of aminoquinolines against SARS-COV-2 (COVID-19). Chloroquine acts by increasing the pH of intracellular vacuoles and altering protein degradation pathways through acidic hydrolases in the lysosomes, macromolecule synthesis in the endosomes, and post-translational protein modification in the Golgi apparatus. In macrophages and other antigen-presenting cells, chloroquine interferes with antigen processing, thereby achieving an antirheumatic response. Studies have demonstrated that chloroquine also confers its considerable broad-spectrum antiviral effects via interfering with the fusion process of these viruses by decreasing the pH. In addition, chloroquine alters the glycosylation of the cellular receptors of coronaviruses. Although the antimalarial activity of hydroxychloroquine is equivalent to that of chloroquine, hydroxychloroquine is preferred over chloroquine owing to its lower ocular toxicity. For example, in patients with COVID-19, chloroquine can interact with lopinavir/ritonavir, resulting in prolongation of the QT interval. Hence, it is necessary to consider hydroxychloroquine instead of chloroquine when the latter is not available for treating patients with COVID-19. For example, in Iran, there is a serious shortage of chloroquine and hydroxychloroquine can be recommended instead. Other therapeutic agents for COVID-19, such as antiviral agents (oseltamivir, lopinavir/ritonavir, ribavirin, etc.), interferons and intravenous immunoglobulins that do not interfere with hydroxychloroquine, are currently under investigation.

Publication Type

Journal article.

<542>

Accession Number

20203217402

Author

Baron, S. A.; Devaux, C.; Colson, P.; Raoult, D.; Rolain, J. M.

Title

Teicoplanin: an alternative drug for the treatment of COVID-19?

Source

International Journal of Antimicrobial Agents; 2020. 55(4)10 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

In December 2019, a novel coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), emerged from China causing pneumonia outbreaks, first in the Wuhan region of China and then spread worldwide because of its probable high transmission efficiency. Owing to the lack of efficient and specific treatments and the need to contain the epidemic, drug repurposing appears to be the best tool to find a therapeutic solution. Chloroquine, remdesivir, lopinavir, ribavirin and ritonavir have shown efficacy to inhibit coronavirus in vitro. Teicoplanin, an antibiotic used to treat staphylococcal infections, previously showed efficacy to inhibit the first stage of the Middle East respiratory syndrome coronavirus (MERS-CoV) viral life cycle in human cells. This activity is conserved against SARS-Cov-2, thus placing teicoplanin as a potential treatment for patients with this virus.

Publication Type

Journal article.

<543>

Accession Number

20203208054

Author

Yang XiaoBo; Yu Yuan; Xu JiQian; Shu HuaQing; Xia Jia'an; Liu Hong; Wu YongRan; Zhang Lu; Yu Zhui; Fang MingHao; Yu Ting; Wang YaXin; Pan ShangWen; Zou XiaoJing; Yuan ShiYing; Shang You

Title

Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study.

Source

Lancet Respiratory Medicine; 2020. 8(5):475-481. 25 ref.

Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Abstract

**Background** An ongoing outbreak of pneumonia associated with the severe acute respiratory coronavirus 2 (SARS-CoV-2) started in December, 2019, in Wuhan, China. Information about critically ill patients with SARS-CoV-2 infection is scarce. We aimed to describe the clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia. **Methods** In this single-centered, retrospective, observational study, we enrolled 52 critically ill adult patients with SARS-CoV-2 pneumonia who were admitted to the intensive care unit (ICU) of Wuhan Jin Yin-tan hospital (Wuhan, China) between late December, 2019, and Jan 26, 2020. Demographic data, symptoms, laboratory values, comorbidities, treatments, and clinical outcomes were all collected. Data were compared between survivors and non-survivors. The primary outcome was 28-day mortality, as of Feb 9, 2020. Secondary outcomes included incidence of SARS-CoV-2-related acute respiratory distress syndrome (ARDS) and the proportion of patients requiring mechanical ventilation. **Findings** Of 710 patients with SARS-CoV-2 pneumonia, 52

critically ill adult patients were included. The mean age of the 52 patients was 59.7 (SD 13.3) years, 35 (67%) were men, 21 (40%) had chronic illness, 51 (98%) had fever. 32 (61.5%) patients had died at 28 days, and the median duration from admission to the intensive care unit (ICU) to death was 7 (IQR 3-11) days for non-survivors. Compared with survivors, non-survivors were older (64.6 years [11.2] vs 51.9 years [12.9]), more likely to develop ARDS (26 [81%] patients vs 9 [45%] patients), and more likely to receive mechanical ventilation (30 [94%] patients vs 7 [35%] patients), either invasively or non-invasively. Most patients had organ function damage, including 35 (67%) with ARDS, 15 (29%) with acute kidney injury, 12 (23%) with cardiac injury, 15 (29%) with liver dysfunction, and one (2%) with pneumothorax. 37 (71%) patients required mechanical ventilation. Hospital-acquired infection occurred in seven (13.5%) patients. Interpretation The mortality of critically ill patients with SARS-CoV-2 pneumonia is considerable. The survival time of the non-survivors is likely to be within 1-2 weeks after ICU admission. Older patients (>65 years) with comorbidities and ARDS are at increased risk of death. The severity of SARS-CoV-2 pneumonia poses great strain on critical care resources in hospitals, especially if they are not adequately staffed or resourced.

#### Publication Type

Journal article.

<544>

#### Accession Number

20203208511

#### Author

Joob, B.; Wiwanitkit, V.

#### Title

COVID-19 in medical personnel: observation from Thailand.

#### Source

Journal of Hospital Infection; 2020. 104(4):453-453. 3 ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

Country of Publication

UK

Publication Type

Correspondence.

<545>

Accession Number

20203218418

Author

Liu ChangXiao

Title

Pay attention to situation of SARS-CoV-2 and TCM advantages in treatment of novel coronavirus infection.

Source

Chinese Herbal Medicines; 2020. 12(2):97-103. 29 ref.

Publisher

Elsevier B.V.

Location of Publisher

Beijing

Country of Publication

China

Abstract

Since the outbreak of the new coronavirus epidemic, novel coronavirus has infected nearly 100,000 people in more than 110 countries. How to face this new coronavirus epidemic outbreak is an important issue. Basic reproduction number ( $R_0$ ) is an important parameter in epidemiology; The basic reproduction number of an infection can be thought of as the expected number of cases directly generated by one case in a population where all individuals are susceptible to infection. Epidemiology dynamics is a mathematical model based on a susceptibility-infection-recovery epidemic model.



Researchers analyzed the epidemiological benefits of different transmission rates for the establishment of effective strategy in prevention and control strategies for epidemic infectious diseases. In this review, the early use of TCM for light and ordinary patients, can rapidly improve symptoms, shorten hospitalization days and reduce severe cases transformed from light and normal. Many TCM formulas and products have wide application in treating infectious and non-infectious diseases. The TCM theoretical system of treating epidemic diseases with TCM and the treatment scheme of integrated Chinese and Western medicine have proved their effectiveness in clinical practice. TCM can cure COVID-19 pneumonia, and also shows that the role of TCM in blocking the progress of COVID-19 pneumonia.

Publication Type

Journal article.

<546>

Accession Number

20203211520

Author

Shajeea Arshad Ali; Mariam Baloch; Naseem Ahmed; Asadullah Arshad Ali; Ayman Iqbal

Title

The outbreak of Coronavirus disease 2019 (COVID-19)-an emerging global health threat.

Source

Journal of Infection and Public Health; 2020. 13(4):644-646. 12 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The outbreak of Coronavirus Disease 2019 (COVID-19) causing novel coronavirus-infected pneumonia (NCIP), has affected the lives of 71,429 people globally. Originating in China, the disease has a rapid progression to other countries. Research suggests remarkable genomic resemblance of 2019-nCoV with Severe Acute Respiratory Syndrome (SARS) which has a history of a pandemic in 2002. With evidence of nosocomial spread, a number of diligent measures are being employed to constrain its propagation. Hence, the Public Health Emergency of International Concern (PHEIC) has been established by the World Health Organization (WHO) with strategic objectives for public health to curtail its impact on global health and economy.

Publication Type

Journal article.

<547>

Accession Number

20203209592

Author

Chen Jun; Qi TangKai; Liu Li; Ling Yun; Qian ZhiPing; Li Tao; Li Feng; Xu QingNian; Zhang YuYi; Xu ShuiBao; Song ZhiGang; Zeng YiGang; Shen YinZhong; Shi YuXin; Zhu TongYu; Lu HongZhou

Title

Clinical progression of patients with COVID-19 in Shanghai, China.

Source

Journal of Infection; 2020. 80(5):e1-e6. 27 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background Studies on the 2019 novel coronavirus disease (COVID-19) have generally been limited to the description of the epidemiology and initial clinical characteristics. We investigated the temporal progression in patients with COVID-19. Methods In this retrospective, single-center study, we included confirmed cases of COVID-19 from Jan 20 to Feb 6, 2020 in Shanghai. Final date of follow-up was February 25, 2020. Results Of the 249 patients enrolled, the median age was 51 years old, and 126 (50.6%) were male. The duration from onset of symptoms to hospitalization was 4(2-7) days in symptomatic patients. Fever was occurred in 235(94.3%) patients. A total of 215 (86.3%) patients had been discharged after 16(12-20) days hospitalization. The estimated median duration of fever in all the patients with fever was 10 days (95 confidential intervals [CIs]: 8-11 days) after onset of symptoms. Patients who were transferred to intensive care units (ICU) had significantly longer duration of fever as compared to those not in ICU (31 days v.s. 9 days after onset of symptoms, respectively, P <0.0001). Radiological aggravation of initial image was observed in 163 (65.7%) patients on day 7 after onset of symptoms. 154(94.5%) of these patients showed radiological improvement on day 14. The median duration to negative reverse-transcriptase PCR tests of upper respiratory tract samples was 11 days (95 CIs: 10-12 days). Viral clearance was more likely to be delayed in patients in ICU than those not in ICU (P <0.0001). In multivariate logistical analysis, age (Odds ratio [OR] = 1.06) and CD4 T cell count (OR = 0.55 per 100 cells/ul increase) were independently associated with ICU admission. Conclusions The majority of COVID-19 cases are mild. The clinical progression pattern suggests that early control of viral replication and application of host-directed therapy in later stage is essential to improve the prognosis of CVOID-19.

#### Publication Type

Journal article.

<548>

#### Accession Number

20203206955

#### Author

Dugassa, B. F.

#### Title

What can we Learn from the Past Deadly Pandemics and Prepare to Curb COVID-19? The Case in Oromia Regional State in Ethiopia.

#### Source

American Journal of Public Health Research; 2020. 8(2):67-76. 31 ref.

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Publisher

Science and Education Publishing Co. Ltd

Location of Publisher

Newark

Country of Publication

USA

Abstract

Background: Although biological agents cause pandemics, they require favorable social conditions to spread and cause ill health. Revisiting past epidemics helps to enhance our understanding of the interactions between biological agents and social conditions. Looking closely at the history of epidemics in Oromia is instrumental in understanding the ways the Ethiopian socio-political policies create favorable social conditions for biological agents to spread from place to place and cause enormous suffering. Background: The primary objective of this paper is to take a close look at the socio-biological conditions in which epidemics spread, identify risky and protective social conditions and learn from the mistakes of past public health interventions and to build upon their strengths. The secondary objective is understanding the complex interactions between biological agents and social conditions and developing prevention strategies to mitigate the impacts of COVID-19. Methods: Using historical methods, in this paper, I closely looked at different pandemics and illuminated the social processes of the resurgence and transmission of infectious diseases. Conclusions: This longitudinal study reveals two major findings. First, although biological agents cause all pandemics, the social conditions of people either protects or exposes them to infections and reveal social inequality. Second, understanding the biology of disease-causing agents and social conditions for transmission are not adequate to control epidemics. It requires building the social, economic, political, and cultural capitals of Oromo people. Oromo people can strengthen those capitals if their rights to self-determination are respected. If the rights of people to decide on their own social, economic, political, and cultural rights are violated, their public health preparedness is curbed and makes them more vulnerable to pandemics. The struggle of people to guarantee themselves the right to decide on their social, economic, political, and cultural affairs should be seen as the means to build these essential capitals.

Publication Type

Journal article.

<549>

Accession Number

Author

El-Sayed, S. M.; Almaramhy, H. H.; Aljehani, Y. T.; Okashah, A. M.; El-Anzi, M. E.; Alharbi, M. B.; Rehab El-Tahlawi; Nabo, M. M. H.; Aboonq, M. S.; Osama Hamouda; Osama Alhadramy

Title

The evidence-based taibuvid nutritional treatment for minimizing COVID-19 fatalities and morbidity and eradicating COVID-19 pandemic: a novel approach for better outcomes (a treatment protocol).

Source

American Journal of Public Health Research; 2020. 8(2):54-60. 38 ref.

Publisher

Science and Education Publishing Co. Ltd

Location of Publisher

Newark

Country of Publication

USA

Abstract

With the continuously expanding terrible pandemic of COVID-19 infection, globally increasing numbers of COVID-19 patients and contacts progressively jump to heavy burdens beyond capabilities. Developing and poor countries may face humanity disasters in the next few days unless urgent measures are rapidly performed. Standard anti-COVID-19 treatment should inhibit COVID-19 replication, repair virus-induced tissue damage and enhance patients' immunity. Unfortunately, such criteria are still lacking in current treatments resulting in relatively high viral infectivity, morbidity and mortality. Based on previous prophetic medicine research experience and the modern literature, we introduce TaibUVID therapy as a novel evidence-based medicinal nutritional treatment for eradicating COVID-19 pandemic. TaibUVID stands for Taibah University anti-COVID-19 treatment as a novel evidence-based approach (using natural products) for treating COVID-19 patients. A single TaibUVID dose includes: 1 small spoonful (tea spoonful) of nigella sativa oil (or 2 gram nigella sativa seeds) mixed with 1 gram of grinded anthemis hyalina mixed with 1 large spoonful of natural honey. This mixture is to be chewed in the mouth and swallowed orally for both COVID-19 contacts and patients. We adjusted dosing regimen and period of treatment into three clinical levels including contacts or prophylaxis, mild cases and severe case (with pneumonia and ventilated patients). We also introduce novel nigella sativa oil (or nigella sativa decoction) nebulization for local treatment of pneumonia or bronchopneumonia that is faced in severe COVID-19 cases. Such nebulization exerts pulmonary tissue protection and antiviral effects particularly for ventilated patients. The wonderful report by Ulasli et al. (Ulasli et al. Mol Biol Rep. 2014; 41: 1703-11) deserves a lot of interest where nigella sativa and Anthemis hyalina (chamomile) were confirmed to inhibit corona virus replication maximally. In addition, nigella sativa enhances immunity, exerts tissue protective effects and effectively treats co-morbidities. Oral honey exerts potent antiviral effects, enhances immunity and exerts tissue protective effects. TaibUVID Plus dose includes regular TaibUVID

dose plus nigella sativa decoction nebulization +/- (if possible Clove oil nebulization/anthemis hyalina decoction nebulization). Clove oil nebulization is beneficial for difficult berating in some COVID-19 cases as clove is confirmed to exert potent antiviral effects. Our suggested TaibUVID and TaibUVID Plus are promising evidence-based approach to rescue lives, decrease fatalities and put a rapid end to COVID-19 pandemic. In prophetic medicine, Prophet Muhammad peace be upon him recommended treatment using both nigella sativa and oral honey saying: " In the black cumin (nigella sativa), there is a cure for every disease except death" and said also: "Cure is in three: in shartat mihjam, gulp of honey (oral honey), and cauterization. I do not recommend my nation to cauterize".

#### Publication Type

Journal article.

<550>

#### Accession Number

20203214494

#### Author

Conticini, E.; Frediani, B.; Caro, D.

#### Title

Can atmospheric pollution be considered a co-factor in extremely high level of SARS-CoV-2 lethality in northern Italy?

#### Source

Environmental Pollution; 2020. 26127 ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

#### Country of Publication

UK

#### Abstract

This paper investigates the correlation between the high level of Severe Acute Respiratory Syndrome CoronaVirus 2 (SARS-CoV-2) lethality and the atmospheric pollution in Northern Italy. Indeed, Lombardy and Emilia Romagna are Italian regions with both the highest level of virus lethality in the world and one of Europe's most polluted area. Based on this correlation, this paper analyzes the possible link between pollution and the development of acute respiratory distress syndrome and eventually death. We provide evidence that people living in an area with high levels of pollutant are more prone to develop chronic respiratory conditions and suitable to any infective agent. Moreover, a prolonged exposure to air pollution leads to a chronic inflammatory stimulus, even in young and healthy subjects. We conclude that the high level of pollution in Northern Italy should be considered an additional co-factor of the high level of lethality recorded in that area.

Publication Type

Journal article.

<551>

Accession Number

20203213712

Author

Ma YueLing; Zhao YaDong; Liu JiangTao; He XiaoTao; Wang Bo; Fu ShiHua; Yan Jun; Niu JingPing; Zhou Ji; Luo Bin

Title

Effects of temperature variation and humidity on the death of COVID-19 in Wuhan, China.

Source

Science of the Total Environment; 2020. 72443 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

## Abstract

Meteorological parameters are the important factors influencing the infectious diseases such as severe acute respiratory syndrome (SARS) and influenza. This study aims to explore the association between Corona Virus Disease 2019 (COVID-19) deaths and weather parameters. In this study, we collected the daily death numbers of COVID-19, meteorological parameters and air pollutant data from 20 January 2020 to 29 February 2020 in Wuhan, China. Generalized additive model was applied to explore the effect of temperature, humidity and diurnal temperature range on the daily death counts of COVID-19. There were 2299 COVID-19 death counts in Wuhan during the study period. A positive association with COVID-19 daily death counts was observed for diurnal temperature range ( $r = 0.44$ ), but negative association for relative humidity ( $r = -0.32$ ). In addition, one unit increase in diurnal temperature range was only associated with a 2.92% (95% CI: 0.61%, 5.28%) increase in COVID-19 deaths in lag 3. However, both 1 unit increase of temperature and absolute humidity were related to the decreased COVID-19 death in lag 3 and lag 5, with the greatest decrease both in lag 3 [-7.50% (95% CI: -10.99%, -3.88%) and -11.41% (95% CI: -19.68%, -2.29%)]. In summary, this study suggests the temperature variation and humidity may also be important factors affecting the COVID-19 mortality.

## Publication Type

Journal article.

<552>

## Accession Number

20203211876

## Author

Sun HuiMin; Lu MengXin; Chen Song; Cheng ZhenShun; Xiong Yong; Wang XingHuan

## Title

Nosocomial SARS-CoV-2 infection among nurses in Wuhan at a single centre.

## Source

Journal of Infection; 2020. 80(6):e41-e42. 4 ref.

## Publisher

Elsevier Ltd

## Location of Publisher



Oxford

Country of Publication

UK

Publication Type

Correspondence.

<553>

Accession Number

20203207447

Author

Salari, A.; Shirkhoda, M.

Title

COVID-19 pandemic & head and neck cancer patients management: the role of virtual multidisciplinary team meetings.

Source

Oral Oncology; 2020. 1054 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This brief article suggests that due to the specific circumstances following the COVID-19 crisis and recommending that no meetings be held to prevent the transmission of the virus and the need to determine the treatment plan for cancer patients taking into account the limitations in the health and treatment system, tumor board with the help of cyberspace are the safest and most logical way to make a group decision for cancer patients.

Publication Type

Correspondence.

<554>

Accession Number

20203207439

Author

Fini, M. B.

Title

What dentists need to know about COVID-19.

Source

Oral Oncology; 2020. 10544 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

This article aims at collecting all information needed for dentists regarding the COVID-19 pandemic throughout the world by reviewing articles published by now. In late 2019, a pneumonia outbreak of uncertain etiology happened in Wuhan, China. There were many reports related to a live-animal and seafood market, supporting that the pathogens were transferred from animals to humans, rapidly evolving into transmission from human to human. The pathogen was classified as 2019 Novel Corona Virus (2019-nCoV), and the disease was named COrona Vlrus Disease 2019 (COVID-19). Given that COVID-19 has lately been detected in infected patients' saliva, the COVID-19 outbreak is an alert that all dental and other health professionals must be vigilant in defending against the infectious disease spread, and it may enable to assess whether non-invasive saliva diagnostic for COVID-19. There has so far been no evidence from randomized controlled trials to prescribe any particular anti-nCoV treatment

or vaccine, and COVID-19 management has been widely supportive. Since the ACE-2 was expressing on oral cavity mucosa, there is a potentially huge COVID-19 infectious vulnerability risk for oral cavity and brought up a proof for the future prevention procedure in dental practice and daily life. As a result, the whole dental teams should be vigilant and keep patients and themselves in a safe environment by following the guideline in this study.

#### Publication Type

Journal article.

<555>

#### Accession Number

20203206750

#### Author

Singh, L.; Singh, N. S.; Maldonado, B. N.; Tweed, S.; Blanchet, K.; Graham, W. J.

#### Title

What does 'leave no one behind' mean for humanitarian crises-affected populations in the COVID-19 pandemic?

#### Source

BMJ Global Health; 2020. 5(4)13 ref.

#### Publisher

BMJ Publishing Group

#### Location of Publisher

London

#### Country of Publication

UK

#### Abstract

Health systems in humanitarian crises settings are often poorly resourced and suffer from workforce shortages, inadequate levels of water, sanitation and hygiene (WASH) and marked deterioration in routine infection prevention and control practices. Poorly resourced and fragmented health systems in humanitarian settings with limited resources, including health workforce, are likely to struggle to prevent

the spread of COVID-19, and consequently be placed under immense strain with implications for patient care. During this pandemic, limited access to WASH facilities is of particular concern as hand hygiene is regarded as the key preventive action for limiting the spread of COVID-19. Vulnerable populations including refugees in humanitarian settings must be included in the international, national and local planning and provision of services in this COVID-19 pandemic.

Publication Type

Journal article.

<556>

Accession Number

20203217392

Author

Chen ZuHua; Fan HongJie; Cai Jian; Li YunJiang; Wu BaoLiang; Hou YanChun; Xu ShuFeng; Zhou Fei; Liu YongGuang; Xuan WeiLing; Hu HongJie; Sun JiHong

Title

High-resolution computed tomography manifestations of COVID-19 infections in patients of different ages.

Source

European Journal of Radiology; 2020. 12610 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Purpose: We aimed to compare chest HRCT lung signs identified in scans of differently aged patients with COVID-19 infections. Methods: Case data of patients diagnosed with COVID-19 infection in Hangzhou City, Zhejiang Province in China were collected, and chest HRCT signs of infected patients in

four age groups (<18 years, 18-44 years, 45-59 years, >=60 years) were compared. Results: Small patchy, ground-glass opacity (GGO), and consolidations were the main HRCT signs in 98 patients with confirmed COVID-19 infections. Patients aged 45-59 years and aged >=60 years had more bilateral lung, lung lobe, and lung field involvement, and greater lesion numbers than patients <18 years. GGO accompanied with the interlobular septa thickening or a crazy-paving pattern, consolidation, and air bronchogram sign were more common in patients aged 45-59 years, and >=60 years, than in those aged <18 years, and aged 18-44 years. Conclusions: Chest HRCT manifestations in patients with COVID-19 are related to patient's age, and HRCT signs may be milder in younger patients.

Publication Type

Journal article.

<557>

Accession Number

20203217344

Author

Chen SiMiao; Zhang ZongJiu; Yang JunTao; Wang Jian; Zhai XiaoHui; B&auml;rninghausen, T.; Wang Chen

Title

Fangcang shelter hospitals: a novel concept for responding to public health emergencies.

Source

Lancet (British edition); 2020. 395(10232):1305-1314. 80 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Fangcang shelter hospitals are a novel public health concept. They were implemented for the first time in China in February, 2020, to tackle the coronavirus disease 2019 (COVID-19) outbreak. The Fangcang shelter hospitals in China were large-scale, temporary hospitals, rapidly built by converting existing public venues, such as stadiums and exhibition centres, into health-care facilities. They served to isolate patients with mild to moderate COVID-19 from their families and communities, while providing medical care, disease monitoring, food, shelter, and social activities. We document the development of Fangcang shelter hospitals during the COVID-19 outbreak in China and explain their three key characteristics (rapid construction, massive scale, and low cost) and five essential functions (isolation, triage, basic medical care, frequent monitoring and rapid referral, and essential living and social engagement). Fangcang shelter hospitals could be powerful components of national responses to the COVID-19 pandemic, as well as future epidemics and public health emergencies.

#### Publication Type

Journal article.

<558>

#### Accession Number

20203217340

#### Author

Remuzzi, A.; Remuzzi, G.

#### Title

COVID-19 and Italy: What next?

#### Source

Lancet (British edition); 2020. 395(10231):1225-1228. 6 ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

#### Country of Publication

UK

## Abstract

The spread of severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) has already taken on pandemic proportions, affecting over 100 countries in a matter of weeks. A global response to prepare health systems worldwide is imperative. Although containment measures in China have reduced new cases by more than 90%, this reduction is not the case elsewhere, and Italy has been particularly affected. There is now grave concern regarding the Italian national health system's capacity to effectively respond to the needs of patients who are infected and require intensive care for SARS-CoV-2 pneumonia. The percentage of patients in intensive care reported daily in Italy between March 1 and March 11, 2020, has consistently been between 9% and 11% of patients who are actively infected. The number of patients infected since Feb 21 in Italy closely follows an exponential trend. If this trend continues for 1 more week, there will be 30 000 infected patients. Intensive care units will then be at maximum capacity; up to 4000 hospital beds will be needed by mid-April, 2020. Our analysis might help political leaders and health authorities to allocate enough resources, including personnel, beds, and intensive care facilities, to manage the situation in the next few days and weeks. If the Italian outbreak follows a similar trend as in Hubei province, China, the number of newly infected patients could start to decrease within 3-4 days, departing from the exponential trend. However, this cannot currently be predicted because of differences between social distancing measures and the capacity to quickly build dedicated facilities in China.

## Publication Type

Journal article.

<559>

## Accession Number

20203215426

## Author

Yu Nan; Li Wei; Kang QingLing; Xiong Zhi; Wang ShaoShuai; Lin XingGuang; Liu YanYan; Xiao Juan; Liu HaiYi; Deng DongRui; Chen SuHua; Zeng WanJiang; Feng Ling; Wu JianLi

## Title

Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study.

## Source

Lancet Infectious Diseases; 2020. 20(5):559-564. 20 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Background: In December, 2019, coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged in Wuhan, China. The number of affected pregnant women is increasing, but scarce information is available about the clinical features of COVID-19 in pregnancy. This study aimed to clarify the clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19. Methods: In this retrospective, single-centre study, we included all pregnant women with COVID-19 who were admitted to Tongji Hospital in Wuhan, China. Clinical features, treatments, and maternal and fetal outcomes were assessed. Findings: Seven patients, admitted to Tongji Hospital from Jan 1, to Feb 8, 2020, were included in our study. The mean age of the patients was 32 years (range 29-34 years) and the mean gestational age was 39 weeks plus 1 day (range 37 weeks to 41 weeks plus 2 days). Clinical manifestations were fever (six [86%] patients), cough (one [14%] patient), shortness of breath (one [14%] patient), and diarrhoea (one [14%] patient). All the patients had caesarean section within 3 days of clinical presentation with an average gestational age of 39 weeks plus 2 days. The final date of follow up was Feb 12, 2020. The outcomes of the pregnant women and neonates were good. Three neonates were tested for SARS-CoV-2 and one neonate was infected with SARS-CoV-2 36 h after birth. Interpretation: The maternal, fetal, and neonatal outcomes of patients who were infected in late pregnancy appeared very good, and these outcomes were achieved with intensive, active management that might be the best practice in the absence of more robust data. The clinical characteristics of these patients with COVID-19 during pregnancy were similar to those of non-pregnant adults with COVID-19 that have been reported in the literature. Funding: National Natural Science Foundation of China, Hubei Provincial Natural Science Foundation of China.

Publication Type

Journal article.

<560>

Accession Number



20203215407

Author

Zhao Shuai; Ling Ken; Yan Hong; Zhong Liang; Peng XiaoHong; Yao ShangLong; Huang JiaPeng; Chen XiangDong

Title

Anesthetic management of patients with COVID 19 infections during emergency procedures.

Source

Journal of Cardiothoracic and Vascular Anesthesia; 2020. 34(5):1125-1131. 15 ref.

Publisher

Elsevier Inc.

Location of Publisher

Philadelphia

Country of Publication

USA

Abstract

**Objectives:** The aim of the present study was to prevent cross-infection in the operating room during emergency procedures for patients with confirmed or suspected 2019 novel coronavirus (2019-nCoV) by following anesthesia management protocols, and to document clinical- and anesthesia-related characteristics of these patients. **Design:** This was a retrospective, multicenter clinical study. **Setting:** This study used a multicenter dataset from 4 hospitals in Wuhan, China. **Participants:** Patients and health care providers with confirmed or suspected 2019-nCoV from January 23 to 31, 2020, at the Wuhan Union Hospital, the Wuhan Children's Hospital, The Central Hospital of Wuhan, and the Wuhan Fourth Hospital in Wuhan, China. **Interventions:** Anesthetic management and infection control guidelines for emergency procedures for patients with suspected 2019-nCoV were drafted and applied in 4 hospitals in Wuhan. **Measurements and Main Results:** Cross-infection in the operating rooms of the 4 hospitals was effectively reduced by implementing the new measures and procedures. The majority of patients with laboratory-confirmed 2019-nCoV infection or suspected infection were female (23 [62%] of 37), and the mean age was 41.0 years old (standard deviation 19.6; range 4-78). 10 (27%) patients had chronic medical illnesses, including 4 (11%) with diabetes, 8 (22%) with hypertension, and 8 (22%) with digestive system disease. Twenty-five (68%) patients presented with lymphopenia, and 23 (62%) patients exhibited multiple mottling and ground-glass opacity on computed tomography scanning. **Conclusions:** The present study indicates that COVID 19-specific guidelines for emergency procedures for patients with confirmed or suspected 2019-nCoV may effectively prevent cross-infection in the operating room. Most patients with confirmed or suspected COVID 19 presented with fever and dry cough and demonstrated bilateral multiple mottling and ground-glass opacity on chest computed tomography scans.

Publication Type

Journal article.

<561>

Accession Number

20203209622

Author

Feng ZhanHui; Cheng YongRan; Chen Juan; Ye Lan; Zhou MengYun; Wang MingWei

Title

Chinese medical personnel against the 2019-nCoV.

Source

Journal of Infection; 2020. 80(5):605-606. 5 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The objective of the article was to examine the medical personnel deployed as frontliners against COVID-19. Medical personnel throughout the country are led under the unified leadership of the Chinese government. Although the epidemic in Wuhan is serious, a large number of medical staff rushed to Wuhan to supplement the shortage of manpower in Wuhan hospitals. In this time of emergency, under the unified deployment of the Chinese government, there are 52 medical teams including 6097 medical personnel from the National Health Commission, the State Administration of Traditional Chinese Medicine, the Academy of Chinese Medical Sciences, 29 provinces and cities, as well as the army.

Publication Type

Correspondence.

<562>

Accession Number

20203208952

Author

Zhang JunGuo; Lin GuanWen; Zeng Jie; Lin JianGuo; Tian JunZhang; Li GuoWei

Title

Challenges of SARS-CoV-2 and lessons learnt from SARS in Guangdong Province, China.

Source

Journal of Clinical Virology; 2020. 1266 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

With lessons learnt from the SARS outbreak in 2003, Guangdong Province is taking the lead in bringing COVID-19 under control by multiple strict regulations in combination with effective healthcare provision.

Publication Type

Journal article.

<563>

Accession Number

20203197935

Author

Siche, R.

Title

What is the impact of COVID-19 disease on agriculture?

Source

Scientia Agropecuaria; 2020. 11(1):3-6. 24 ref.

Publisher

Universidad Nacional de Trujillo

Location of Publisher

Trujillo

Country of Publication

Peru

Abstract

The different pandemics that humanity has experienced, such as the Spanish Flu, Asian Flu, Hong Kong Flu, HIV/AIDS, SARS, Ebola, and Swine Flu, have had a great impact on the economy, the environment and any human activity, such as livestock, agriculture, tourism, transport, education, health, fishing, mining, industry, commerce, etc. Currently, humanity is facing another pandemic, the infection of the new coronavirus (2019-nCoV) that generates the disease known as COVID-19. The objective of this document is to analyze and discuss the effects in agriculture of events related to the disease of COVID-19. For this analysis, data from the Food Agriculture Organization (FAO), the World Health Organization (WHO) and scientific and technical documents have been used. There is sufficient evidence to affirm that the pandemic caused by the COVID-19 disease has an important effect on agriculture and the food supply chain, mainly affecting food demand and consequently food security, with a great impact on the most vulnerable population.

Publication Type

Journal article.

<564>

Accession Number

20203192975

Author

Wang Jia; Wang ZhiFeng

Title

Strengths, weaknesses, opportunities and threats (SWOT) analysis of China's prevention and control strategy for the COVID-19 epidemic.

Source

International Journal of Environmental Research and Public Health; 2020. 17(7)30 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

This study used the Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) (SWOT) analysis method, drawing on our experience of the response to the 2003 SARS epidemic, the 2019 China Health Statistics Yearbook data, and changes in China's policy environment for the pneumonia epidemic response relating to the novel coronavirus (COVID-19) infection, to perform a systematic analysis of the COVID-19 epidemic prevention and control strategy S, W, O, and T, with a further analysis of a strategic foundation and to determine a significant and relative strategy. We assessed and formulated strength-opportunity (SO), weakness-opportunity (WO), strength-threat (ST), and weakness-threat (WT) strategies for the prevention and control of the COVID-19 epidemic. We conducted an in-depth analysis and identified the highest-priority policies. These are: reshaping the emergency system (SO1); adding health emergency departments to universities and other institutions (WO2); adjusting the economic structure and strengthening international and domestic linkages (ST2); and strengthening public intervention in responding to public health emergencies (WT1).

Publication Type

Journal article.

<565>

Accession Number

20203203577

Author

Kumar, V. V. S.; Praneetha, Y.; Raghupathi, B.; Lakshmana, M. G.

Title

AgAcademy: a modal platform for scaling up e-learning in Indian agriculture in COVID times.

Source

AgAcademy: a modal platform for scaling up e-learning in Indian agriculture in covid times; 2020. :4 pp. 4 ref.

Abstract

Apart from the most challenging health crisis, COVID-19 pandemic has also adversely impacted the education systems globally as it has forced for the shutdown of all the social and educational institutions amidst call for immediate lockdown of several nations. In the wake of these prevailing critical situations in India, National Agricultural Education System as similar to the other peer higher educational institutions in the country, is at the forefront in terms of quick movement to virtual platforms facilitating e-Learning to all the students across the country. In this context, "AgAcademy", an online e-Learning platform was built using an open source cloud powered software Moodle implemented using Softaculous, specially designed to power digital learning portals. This free digital learning management system offers a potential integrated solution and enables all the Agricultural Universities within the NARES to offer online based distance learning platform from the safety of their own homes of both the instructors and the learners.

Publication Type

Preprint.

<566>

Accession Number

20203203545

Author

Zhang PeiYan; Cai Zhao; Wu WeiBo; Peng Ling; Li YinFeng; Chen ChuMing; Chen Li; Li JianMing; Cao MengLi; Feng ShiYan; Jiang Xiao; Yuan Jing; Liu YingXia; Yang Liang; Wang FuXiang

Title

The novel coronavirus (COVID-19) pneumonia with negative detection of viral ribonucleic acid from nasopharyngeal swabs: a case report.

Source

BMC Infectious Diseases; 2020. 20(317):(30 April 2020). 11 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Background: The novel coronavirus disease 2019 (COVID-19) outbreak started in Wuhan, Hubei, China since Dec 2019 and cases of infection have been continuously reported in various countries. It is now clear that the SARSCOV- 2 coronavirus is transmissible from human to human. Nucleic acid detection is considered as the gold standard for the diagnosis of COVID-19. In this case report, we describe our experience in detection of SARS-COV-2 from a confirmed patient using nucleic acid test of bronchoalveolar-lavage fluid (BALF) samples but not nasopharyngeal swabs. Case presentation: We present a case of severely ill SARS-COV-2 infected 46-year-old man with fever, coughing and chest tightness. We performed viral detection using his BALF samples and imaging method (CT) for confirmation. The patient received combination of interferonalfa-1b and ribavirin, lopinavir and ritonavir for antiviral treatment at different stages. Other medication was also given to him in combination for anti-inflammation, intestinal microbial regulation, phlegm elimination, liver protection and pulmonary fibrosis prevention purposes. We provided oxygen supply to him using BIPAP ventilator and high-flow humidification oxygen therapy instrument to facilitate respiration. The patient was cured and discharged. Conclusion: This case report described an effective supportive medication scheme to treat SARS-COV-2 infected patient and emphasized the necessity of detection of the viral genome using BALF samples and its significance in the diagnosis and prognosis of the disease.

Publication Type

Journal article.

<567>

Accession Number

20203194666

Author

Yamrali, M.; Motlagh, A.; Azghandi, S.; Azadeh, P.; Vaezi, M.; Ashraf, F.; Zendehtdel, K.; Mirzaei, H.; Basi, A.; Rakhsha, A.; Seifi, S.; Tabatabaeefar, M.; Elahi, A.; Pirjani, P.; Shoar, L. M.; Nadarkhani, F.; Khoshabi, M.; Bahar, M.; Esfahani, F.; Fudazi, H.; Samiei, F.; Farazmand, B.; Ahmari, A.; Rajabpour, M. V.; Janbabaie, G.; Raisi, A.; et al.

Title

COVID19 prevention & care; a cancer specific guideline.

Source

Archives of Iranian Medicine; 2020. 23(4):255-264. 16 ref.

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

On March 11th 2020, the coronavirus outbreak was declared a pandemic by the WHO. One of the groups that is considered high risk in this pandemic are cancer patients as they are treated with a variety of immune system suppressor treatment modalities and this puts them in a great risk for infectious disease (including COVID-19). Therefore, cancer patients require higher level measures for preventing and treating infectious diseases. Furthermore, cancer patients may bear additional risk due to the restriction of access to the routine diagnostic and therapeutic services during such epidemic. Since most of the attention of health systems is towards patients affected with COVID-19, the need for structured and unified approaches to COVID-19 prevention and care specific to cancer patients and cancer centers is felt more than ever. This article provides the recommendations and possible actions that should be considered by patients, their caregivers and families, physician, nurses, managers and staff of medical centers involved in cancer diagnosis and treatment. We pursued two major goals in our recommendations: first, limiting the exposure of cancer patients to medical environments and second, modifying the treatment modalities in a manner that reduces the probability of myelosuppression such



as delaying elective diagnostic and therapeutic services, shortening the treatment course, or prolonging the interval between treatment courses.

Publication Type

Journal article.

<568>

Accession Number

20203176554

Author

Chang De; Lin MingGui; Wei Lai; Xie LiXin; Zhu GuangFa; Cruz, C. S. dela; Sharma, L.

Title

Epidemiologic and clinical characteristics of novel coronavirus infections involving 13 patients outside Wuhan, China.

Source

JAMA, Journal of the American Medical Association; 2020. 323(11):1092-1093. 6 ref.

Publisher

American Medical Association

Location of Publisher

Chicago

Country of Publication

USA

Abstract

This paper reports early clinical features of 13 patients with confirmed 2019-nCoV infection admitted to hospitals in Beijing. Data were obtained from 3 hospitals in Beijing, China (Beijing Tsinghua Changgung Hospital, School of Medicine, Tsinghua University [8 patients], Beijing Anzhen Hospital, Capital Medical University [4 patients], and College of Respiratory and Critical Care Medicine, Chinese PLA General Hospital [1 patient]). Twelve patients reported fever (mean, 1.6 days) before hospitalization. Symptoms included cough (46.3%), upper airway congestion (61.5%), myalgia (23.1%), and headache (23.1%). No patient required respiratory support before being transferred to the specialty

hospital after a mean of 2 days. The youngest patient (aged 2 years) had intermittent fever for 1 week and persistent cough for 13 days before 2019-nCoV diagnosis. Levels of inflammatory markers such as C-reactive protein were elevated, and numbers of lymphocytes were marginally elevated. Four patients had chest radiographs and 9 had computed tomography. Five images did not demonstrate any consolidation or scarring. One chest radiograph demonstrated scattered opacities in the left lower lung; in 6 patients, ground glass opacity was observed in the right or both lungs. As of February 4, 2020, all the patients recovered, but 12 were still being quarantined in the hospital.

Publication Type

Journal article.

<569>

Accession Number

20203201462

Author

Lentini, G.; Cavalluzzi, M. M.; Habtemariam, S.

Title

COVID-19, Chloroquine Repurposing, and cardiac safety concern: Chirality might help.

Source

Molecules; 2020. 25(8)33 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The desperate need to find drugs for COVID-19 has indicated re-purposing strategies as our quickest way to obtain efficacious medicines. One of the options under investigation is the old antimalarial drug, chloroquine, and its analog, hydroxychloroquine. Developed as synthetic succedanea of cinchona

alkaloids, these chiral antimalarials are currently in use as the racemate. Besides the ethical concern related to accelerated large-scale clinical trials of drugs with unproven efficacy, the known potential detrimental cardiac effects of these drugs should also be considered. In principle, the safety profile might be ameliorated by using chloroquine/hydroxychloroquine single enantiomers in place of the racemate.

Publication Type

Journal article.

<570>

Accession Number

20203202656

Author

Qian Xu; Ren Ran; Wang YouFa; Guo Yan; Fang Jing; Wu ZhongDao; Liu PeiLong; Han TieRu

Title

Fighting against the common enemy of COVID-19: a practice of building a community with a shared future for mankind.

Source

Infectious Diseases of Poverty; 2020. 9(34):(07 April 2020). 19 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The outbreak of coronavirus disease 2019 (COVID-19) has caused more than 80 813 confirmed cases in all provinces of China, and 21 110 cases reported in 93 countries of six continents as of 7 March 2020 since middle December 2019. Due to biological nature of the novel coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) with faster spreading and unknown transmission

pattern, it makes us in a difficulty position to contain the disease transmission globally. To date, we have found it is one of the greatest challenges to human beings in fighting against COVID-19 in the history, because SARS-CoV-2 is different from SARS-CoV and MERS-CoV in terms of biological features and transmissibility, and also found the containment strategies including the non-pharmaceutical public health measures implemented in China are effective and successful. In order to prevent a potential pandemic-level outbreak of COVID-19, we, as a community of shared future for mankind, recommend for all international leaders to support preparedness in low and middle income countries especially, take strong global interventions by using old approaches or new tools, mobilize global resources to equip hospital facilities and supplies to protect noisome infections and to provide personal protective tools such as facemask to general population, and quickly initiate research projects on drug and vaccine development. We also recommend for the international community to develop better coordination, cooperation, and strong solidarity in the joint efforts of fighting against COVID-19 spreading recommended by the joint mission report of the WHO-China experts, against violating the International Health Regulation (WHO, 2005), and against stigmatization, in order to eventually win the battle against our common enemy - COVID-19.

Publication Type

Journal article.

<571>

Accession Number

20203197064

Author

Grant, W. B.; Lahore, H.; McDonnell, S. L.; Baggerly, C. A.; French, C. B.; Aliano, J. L.; Bhattoa, H. P.

Title

Evidence that vitamin d supplementation could reduce risk of influenza and COVID-19 infections and deaths.

Source

Nutrients; 2020. 12(4)many ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The world is in the grip of the COVID-19 pandemic. Public health measures that can reduce the risk of infection and death in addition to quarantines are desperately needed. This article reviews the roles of vitamin D in reducing the risk of respiratory tract infections, knowledge about the epidemiology of influenza and COVID-19, and how vitamin D supplementation might be a useful measure to reduce risk. Through several mechanisms, vitamin D can reduce risk of infections. Those mechanisms include inducing cathelicidins and defensins that can lower viral replication rates and reducing concentrations of pro-inflammatory cytokines that produce the inflammation that injures the lining of the lungs, leading to pneumonia, as well as increasing concentrations of anti-inflammatory cytokines. Several observational studies and clinical trials reported that vitamin D supplementation reduced the risk of influenza, whereas others did not. Evidence supporting the role of vitamin D in reducing risk of COVID-19 includes that the outbreak occurred in winter, a time when 25-hydroxyvitamin D (25(OH)D) concentrations are lowest; that the number of cases in the Southern Hemisphere near the end of summer are low; that vitamin D deficiency has been found to contribute to acute respiratory distress syndrome; and that case-fatality rates increase with age and with chronic disease comorbidity, both of which are associated with lower 25(OH)D concentration. To reduce the risk of infection, it is recommended that people at risk of influenza and/or COVID-19 consider taking 10,000 IU/d of vitamin D3 for a few weeks to rapidly raise 25(OH)D concentrations, followed by 5000 IU/d. The goal should be to raise 25(OH)D concentrations above 40-60 ng/mL (100-150 nmol/L). For treatment of people who become infected with COVID-19, higher vitamin D3 doses might be useful. Randomized controlled trials and large population studies should be conducted to evaluate these recommendations.

Publication Type

Journal article.

<572>

Accession Number

20203192569

Author

MacLaren, G.; Fisher, D.; Brodie, D.

## Title

Preparing for the most critically ill patients with COVID-19: the potential role of extracorporeal membrane oxygenation.

## Source

JAMA, Journal of the American Medical Association; 2020. 323(13):1245-1246. 8 ref.

## Publisher

American Medical Association

## Location of Publisher

Chicago

## Country of Publication

USA

## Abstract

The novel coronavirus has now infected tens of thousands of people in China and has spread rapidly around the globe. The World Health Organization (WHO) has declared the disease, coronavirus disease 2019 (COVID-19), a Public Health Emergency of International Concern and released interim guidelines on patient management. Early reports that emerged from Wuhan, the epicenter of the outbreak, demonstrated that the clinical manifestations of infection were fever, cough, and dyspnea, with radiological evidence of viral pneumonia. Approximately 15% to 30% of these patients developed acute respiratory distress syndrome (ARDS). The WHO interim guidelines made general recommendations for treatment of ARDS in this setting, including that consideration be given to referring patients with refractory hypoxemia to expert centers capable of providing extracorporeal membrane oxygenation (ECMO). The role of ECMO in the management of COVID-19 is unclear at this point. It has been used in some patients with COVID-19 in China but detailed information is unavailable. ECMO may have a role in the management of some patients with COVID-19 who have refractory hypoxemic respiratory failure. However, much about the virus is unknown, including the natural history, incidence of late complications, viral persistence, or the prognoses in different subsets of patients. This uncertainty might be compared to the emergence of influenza A(H1N1) in 2009, when it was initially unclear what the role of ECMO should be. However, the degree of uncertainty surrounding COVID-19 is much greater. To address this, prompt mobilization of existing registries and clinical research groups should help facilitate the systematic collection of data. For example, the Extracorporeal Life Support Organization (ELSO) Registry is being adapted to acquire new information about COVID-19 and prospective observational studies are under way.

## Publication Type

Journal article.

<573>

Accession Number

20203192563

Author

Wang, C. J.; Ng, C. Y.; Brook, R. H.

Title

Big data analytics, new technology, and proactive testing.

Source

JAMA, Journal of the American Medical Association; 2020. 323(14):1341-1342. 5 ref.

Publisher

American Medical Association

Location of Publisher

Chicago

Country of Publication

USA

Abstract

COVID-19 occurred just before the Lunar New Year during which time millions of Chinese and Taiwanese were expected to travel for the holidays. Taiwan quickly mobilized and instituted specific approaches for case identification, containment, and resource allocation to protect the public health. Taiwan enhanced COVID-19 case finding by proactively seeking out patients with severe respiratory symptoms (based on information from the National Health Insurance [NHI] database) who had tested negative for influenza and retested them for COVID-19; 1 was found of 113 cases. The toll-free number 1922 served as a hotline for citizens to report suspicious symptoms or cases in themselves or others; as the disease progressed, this hotline has reached full capacity, so each major city was asked to create its own hotline as an alternative. It is not known how often this hotline has been used. The government addressed the issue of disease stigma and compassion for those affected by providing food, frequent health checks, and encouragement for those under quarantine. This rapid response included hundreds of action items. Taiwan's government learned from its 2003 SARS experience and established a public health response mechanism for enabling rapid actions for the next crisis. Well-trained and experienced teams of officials were quick to recognize the crisis and activated emergency management structures to address the emerging outbreak. In a crisis, governments often make difficult decisions under uncertainty and time constraints. These decisions must be both culturally appropriate and sensitive to the population. Through early recognition of the crisis, daily briefings to the public, and simple health messaging, the government was able to reassure the public by delivering timely, accurate, and

transparent information regarding the evolving epidemic. Taiwan is an example of how a society can respond quickly to a crisis and protect the interests of its citizens.

Publication Type

Journal article.

<574>

Accession Number

20203192532

Author

Duan ShengLi; Chen Wei; Xia Kai; Liu YiFeng; Han XiaoFeng

Title

Development of full-nutritional formula food for COVID-19 and respiratory patients. [Chinese]

Source

Journal of Food Science and Technology (Beijing); 2020. 38(2):1-7. 34 ref.

Publisher

Beijing Technology and Business University

Location of Publisher

Beijing

Country of Publication

China

Abstract

The outbreak of coronavirus disease 2019 (COVID-19) and its global epidemic shocked the world, which inspired the new thinking of food structure and consumption pattern from consumers. The scientific concept of nutrition and health and the appeals of good life caused wide society attention. It is bound to profoundly influence food industry, especially to the emerging industry of food for special medical purposes (FSMP). Face to the epidemic outbreak of COVID-19 without specific drugs, nutritional support treatment is an important intervention method for front-line treatment, and there is no FSMP for patients with COVID-19 yet. Based on the characteristics and nutritional needs of patients with respiratory system disease, the development concept of product suitable for diagnosis and



treatment of respiratory diseases was designed via the adjustment of energy supply of macronutrients and the addition of microelement. The specific full-nutritional powder, emulsion, and functional fat emulsion for respiratory system diseases were designed via research and optimization of raw material screening and process, which should be applied strongly for nutritional treatment and life support after the epidemic.

Publication Type

Journal article.

<575>

Accession Number

20203190634

Author

Spinelli, F. R.; Ceccarelli, F.; Franco, M. di; Conti, F.

Title

To consider or not antimalarials as a prophylactic intervention in the SARS-CoV-2 (COVID-19) pandemic.

Source

Annals of the Rheumatic Diseases; 2020. 79(5):666-667. 6 ref.

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Publication Type

Correspondence.

<576>

Accession Number

20203189378

Author

Jamaati, H.; Dastan, F.; Tabarsi, P.; Marjani, M.; Saffaeiorcid, A.; Hashemian, S. M.

Title

A fourteen-day experience with coronavirus disease 2019 (COVID-19) induced acute respiratory distress syndrome (ERDS): an Iranian treatment protocol.

Source

Iranian Journal of Pharmaceutical Research; 2020. 19(1):31-36. 9 ref.

Publisher

School of Pharmacy, Shaheed Beheshti University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

COVID-19 is currently causing concern in the medical community as the virus is spreading around the world. It has a heavy global burden, particularly in low-income countries. The clinical spectrum of COVID-19 pneumonia ranges from mild to critically ill cases and Acute Respiratory Distress Syndrome. An expert panel was held and an internal protocol was developed to manage the COVID-19 induced ARDS according to WHO recommendations and NIH guidelines. Different therapeutic regimens were employed on this protocol based on the ARDS severity and the patients' special characteristics. The mortality rate, the rate of survivors, and non-survivors were reported. Of the 231 suspected cases of COVID-19 admitted to the hospital during two weeks, 72 patients were admitted to ICU with diagnosis confirmed by RT-PCR. In total, mortality in the ICU was 25% (n = 18) among ARDS patients over two weeks. COVID-19 induced ARDS is a major concern. The rapid progression of ARDS needs specific protocol based on patients' characteristics and rapid action.

Publication Type

Journal article.

<577>

Accession Number

20203189377

Author

Dastan, F.; Tabarsi, P.; Marjani, M.; Moniri, A.; Hashemianb, S. M. R.; Tavakoli-Ardakani, M.; Saffaei, A.

Title

Thalidomide against coronavirus disease 2019 (COVID-19): a medicine with a thousand faces.

Source

Iranian Journal of Pharmaceutical Research; 2020. 19(1):1-2. 13 ref.

Publisher

School of Pharmacy, Shaheed Beheshti University of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Recently, Wuhan, China became the epicenter for the outbreak of novel coronavirus pneumonia (COVID-19). No specific agents are available for treating COVID-19 while some agents such as antivirals, chloroquine, and immunomodulatory agents are under investigation. In vitro and in vivo studies showed that thalidomide impairs the synthesis of tumor necrosis factor alpha (TNF-alpha). It increases peripheral blood CD8+ T cells, plasma interleukin 12 (IL-12) levels, interferon-gamma production, and cytotoxic activity. Anti-inflammatory effects of thalidomide on H1N1 influenza virus-induced pulmonary injury in mice showed that thalidomide greatly improves the survival rate, reduces the infiltration of inflammatory cells, cytokine (e.g., IL-6, TNF-a), and chemokine (chemokine ligand 5, C-X-C motif chemokine 10) levels, and inhibits the activated p-NFkappaB p6. Given the beneficial effects of thalidomide, it is necessary to try it in COVID-19 cases as a therapeutic agent. It is recommended that large clinical trials be designed to find the efficacy and safety of thalidomide in COVID-19.

Publication Type

Journal article.

<578>

Accession Number

20203189369

Author

Reiner, &Zcaron;; Hatamipour, M.; Banach, M.; Pirro, M.; Al-Rasadi, K.; Jamialahmadi, T.; Radenkovic, D.; Montecucco, F.; Sahebkar, A.

Title

Statins and the COVID-19 main protease: in silico evidence on direct interaction.

Source

Archives of Medical Science; 2020. 16(3):490-496. 26 ref.

Publisher

Termedia Publishing House

Location of Publisher

Poznan

Country of Publication

Poland

Abstract

Introduction: No proven drug and no immunisation are yet available for COVID-19 disease. The SARS-CoV-2 main protease (Mpro), a key coronavirus enzyme, which is a potential drug target, has been successfully crystallised. There is evidence suggesting that statins exert anti-viral activity and may block the infectivity of enveloped viruses. The aim of this study was to assess whether statins are potential COVID-19 Mpro inhibitors, using a molecular docking study. Material and methods: Molecular docking was performed using AutoDock/ Vina, a computational docking program. SARS-CoV-2 Mpro was docked with all statins, while antiviral and antiretroviral drugs - favipiravir, nelfinavir, and lopinavir - were used as standards for comparison. Results: The binding energies obtained from the docking of 6LU7 with native ligand favipiravir, nelfinavir, lopinavir, simvastatin, rosuvastatin, pravastatin, pitavastatin, lovastatin, fluvastatin, and atorvastatin were -6.8, -5.8, -7.9, -7.9, -7.0, -7.7, -6.6, -8.2, -7.4, -7.7, and -6.8 kcal/mol, respectively. The number of hydrogen bonds between statins and amino acid residues of Mpro were 7, 4, and 3 for rosuvastatin, pravastatin, and atorvastatin, respectively, while other statins had two

hydrogen bonds. Conclusions: These results indicate, based upon the binding energy of pitavastatin, rosuvastatin, lovastatin, and fluvastatin, that statins could be efficient SARS-CoV-2 Mpro inhibitors. This is supported by the fact that the effects of some statins, especially pitavastatin, have a binding energy that is even greater than that of protease or polymerase inhibitors. However, further research is necessary to investigate their potential use as drugs for COVID-19.

Publication Type

Journal article.

<579>

Accession Number

20203193009

Author

Hua JinLing; Shaw, R.

Title

Corona virus (COVID-19) "infodemic" and emerging issues through a data lens: the case of China.

Source

International Journal of Environmental Research and Public Health; 2020. 17(7)30 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Coronavirus (COVID-19) is a humanitarian emergency, which started in Wuhan in China in early December 2019, brought into the notice of the authorities in late December, early January 2020, and, after investigation, was declared as an emergency in the third week of January 2020. The WHO declared this as Public Health Emergency of International Concern (PHEIC) on 31th of January 2020, and finally a pandemic on 11th March 2020. As of March 24th, 2020, the virus has caused a casualty of over 16,600

people worldwide with more than 380,000 people confirmed as infected by it, of which more than 10,000 cases are serious. Mainly based on Chinese newspapers, social media and other digital platform data, this paper analyzes the timeline of the key actions taken by the government and people over three months in five different phases. It found that although there was an initial delay in responding, a unique combination of strong governance, strict regulation, strong community vigilance and citizen participation, and wise use of big data and digital technologies, were some of the key factors in China's efforts to combat this virus. Being invisible and non-measurable (unlike radioactive exposure), appropriate and timely information is very important to form the basic foundation of mitigation and curative measures. Infodemic, as it is termed by WHO, is a key word, where different stakeholder's participation, along with stricter regulation, is required to reduce the impact of fake news in this information age and social media. Although different countries will need different approaches, focusing on its humanitarian nature and addressing infodemic issues are the two critical factors for future global mitigation efforts.

Publication Type

Journal article.

<580>

Accession Number

20203199731

Author

Mounesan, L.; Eybpoosh, S.; Haghdooost, A.; Moradi, G.; Mostafavi, E.

Title

Is reporting many cases of COVID-19 in Iran due to strength or weakness of Iran's health system?

Source

Iranian Journal of Microbiology; 2020. 12(2):73-76. 11 ref.

Publisher

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

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

The objective of the article was to report the case detection, as well as the prevalence and epidemiology of COVID-19 in Iran that is a reflection of their health care system.

Publication Type

Journal article.

<581>

Accession Number

20203197829

Author

González-Jaramillo, V.; González-Jaramillo, N.; Gómez-Restrepo, C.; Palacio-Acosta, C. A.; Gómez-López, A.; Franco, O. H.

Title

Impact of the COVID-19 pandemic on the Colombian population according to mitigation measures. Preliminary data from epidemiological models for the period March 18 to April 18, 2020. [Spanish]

Source

Revista de Salud Publica; 2020. 22(1)9 ref.

Publisher

Instituto de Salud Publico, Facultad de Medicina, Universidad Nacional de Colombia

Location of Publisher

Bogota

Country of Publication

Colombia

Abstract

Introduction: First case of COVID-19 in Colombia was diagnosed on March 6th. Two weeks later, cases have rapidly increased, leading the government to establish some mitigation measures. Objectives: The first objective is to estimate and model the number of cases, use of hospital resources and mortality by using different R0 scenarios in a 1-month scenario (from March 18 to April 18, 2020), based on the different isolation measures applied. This work also aims to model, without establishing a time horizon, the same outcomes given the assumption that eventually 70% of the population will be infected. Materials and Methods: Data on the number of confirmed cases in the country as of March 18, 2020 (n=93) were taken as the basis for the achievement of the first objective. An initial transmission rate of R0=2.5 and a factor of 27 for undetected infections per each confirmed case were taken as assumptions for the model. The proportion of patients who may need intensive care or other in-hospital care was based on data from the Imperial College of London. On the other hand, an age-specific mortality rate provided by the Instituto Superiore di Sanita in Italy was used for the second objective. Results: Based on the 93 cases reported as of March 18, if no mitigation measures were applied, by April 18, the country would have 613 037 cases. Mitigation measures that reduce R0 by 10% generate a 50% reduction in the number of cases. However, despite halving the number of cases, there would still be a shortfall in the number of beds required and only one in two patients would have access to this resource. Conclusion: This model found that the mitigation measures implemented to date by the Colombian government and analyzed in this article are based on sufficient evidence and will help to slow the spread of SARS-CoV-2 in Colombia. Although a time horizon of one month was used for this model, it is plausible to believe that, if the current measures are sustained, the mitigation effect will also be sustained over time.

#### Publication Type

Journal article.

<582>

#### Accession Number

20203185390

#### Author

Mahalaxmi Iyer; Kaavya Jayaramayya; Subramaniam, M. D.; Lee SooBin; Dayem, A. A.; Cho SsangGoo; Balachandar Vellingiri

#### Title

COVID-19: an update on diagnostic and therapeutic approaches.

#### Source



Publisher

Korean Society for Biochemistry and Molecular Biology

Location of Publisher

Seoul

Country of Publication

Korea Republic

Abstract

The unexpected pandemic set off by the novel coronavirus 2019 (COVID-19) has caused severe panic among people worldwide. COVID-19 has created havoc, and scientists and physicians are urged to test the efficiency and safety of drugs used to treat this disease. In such a pandemic situation, various steps have been taken by the government to control and prevent the Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2). This pandemic situation has forced scientists to rework strategies to combat infectious diseases through drugs, treatment, and control measures. COVID-19 treatment requires both limiting viral multiplication and neutralizing tissue damage induced by an inappropriate immune reaction. Currently, various diagnostic kits to test for COVID-19 are available, and repurposing therapeutics for COVID-19 has shown to be clinically effective. As the global demand for diagnostics and therapeutics continues to rise, it is essential to rapidly develop various algorithms to successfully identify and contain the virus. This review discusses the updates on specimens/samples, recent efficient diagnostics, and therapeutic approaches to control the disease and repurposed drugs mainly focusing on chloroquine/hydroxychloroquine and convalescent plasma (CP). More research is required for further understanding of the influence of diagnostics and therapeutic approaches to develop vaccines and drugs for COVID-19.

Publication Type

Journal article.

<583>

Accession Number

20203203494

Author

Xu JiMin; Shi PeiYong; Li HongMin; Zhou Jia

Title

Broad spectrum antiviral agent niclosamide and its therapeutic potential.

Source

ACS Infectious Diseases; 2020. 6(5):909-915. 67 ref.

Publisher

American Chemical Society

Location of Publisher

Washington

Country of Publication

USA

Abstract

The recent outbreak of coronavirus disease 2019 (COVID-19) highlights an urgent need for therapeutics. Through a series of drug repurposing screening campaigns, niclosamide, an FDA-approved anthelmintic drug, was found to be effective against various viral infections with nanomolar to micromolar potency such as SARS-CoV, MERS-CoV, ZIKV, HCV, and human adenovirus, indicating its potential as an antiviral agent. In this brief review, we summarize the broad antiviral activity of niclosamide and highlight its potential clinical use in the treatment of COVID-19.

Publication Type

Journal article.

<584>

Accession Number

20203200332

Author

Wu Kai; Wan Zhen

Title

A death falciparum malaria case during epidemic period of coronavirus disease (COVID-19) in Wuhan. [Chinese]

Source

China Tropical Medicine; 2020. 20(3):202-204. 14 ref.

Publisher

Editorial Department of China Tropical Medicine

Location of Publisher

Hainan

Country of Publication

China

Abstract

**Objective** To explore the death factors of a falciparum malaria case during the coronavirus disease (COVID-19) epidemic, and we provide reference for prevention and control of imported malaria in the major public health events. **Methods** The data of epidemiology, morphology and clinical treatment were collected and analyzed. **Results** The time "attack-confirm" of the case was 7 days, plasmodium density was more than 500 000 / $\mu$ L, and clinical test results were red blood cells 3.101012/L, hemoglobin 89.00 g/L, platelets 2.00109/L, white blood cells 18.85109/L, total bilirubin 296.10  $\mu$ mol/L, urea 55.30  $\mu$ mol/L, creatinine 799.00  $\mu$ mol/L, glucose 2.20 mmol/L, lactic acid 15.00 mmol/L, D- dimer > 7.80  $\mu$ g/mL. The case was diagnosed as falciparum malaria (brain type), anemia, septic shock, hypoglycemia, liver and kidney failure, metabolic acidosis and coagulation dysfunction. **Conclusion** It was necessary to build a scientific prevention and control measures of classified guidance and comprehensive, strengthen health education on malaria control, check malaria patients and provide the medical access when major public health events break out.

Publication Type

Journal article.

<585>

Accession Number

20203177697

Author

Backer, J. A.; Klinkenberg, D.; Wallinga, J.

Title

Incubation period of 2019 novel coronavirus (2019-nCoV) infections among travellers from Wuhan, China, 20-28 January 2020.

Source

Eurosurveillance; 2020. 25(5)21 ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

A novel coronavirus (2019-nCoV) is causing an outbreak of viral pneumonia that started in Wuhan, China. Using the travel history and symptom onset of 88 confirmed cases that were detected outside Wuhan in the early outbreak phase, we estimate the mean incubation period to be 6.4 days (95% credible interval: 5.6-7.7), ranging from 2.1 to 11.1 days (2.5th to 97.5th percentile). These values should help inform 2019-nCoV case definitions and appropriate quarantine durations.

Publication Type

Journal article.

<586>

Accession Number

20203177696

Author

Quilty, B. J.; Clifford, S.; Flasche, S.; Eggo, R. M.

Title

Effectiveness of airport screening at detecting travellers infected with novel coronavirus (2019-nCoV).

Source

Eurosurveillance; 2020. 25(5)19 ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

We evaluated effectiveness of thermal passenger screening for 2019-nCoV infection at airport exit and entry to inform public health decision-making. In our baseline scenario, we estimated that 46% (95% confidence interval: 36 to 58) of infected travellers would not be detected, depending on incubation period, sensitivity of exit and entry screening, and proportion of asymptomatic cases. Airport screening is unlikely to detect a sufficient proportion of 2019-nCoV infected travellers to avoid entry of infected travellers.

Publication Type

Journal article.

<587>

Accession Number

20203177602

Author

Naser, N.; Masic, I.; Zildzic, M.

Title

Public health aspects of COVID-19 infection with focus on cardiovascular diseases.

Source

Materia Socio Medica; 2020. 32(1):71-76. 25 ref.

Publisher

Academy of Medical Sciences of Bosnia and Herzegovina

Location of Publisher

Sarajevo

Country of Publication

Bosnia-Herzegovina

Abstract

Introduction: COVID-19 is the disease caused by an infection of the SARS-CoV-2 virus, first identified in the city of Wuhan, in China's Hubei province in December 2019. COVID-19 was previously known as 2019 Novel Coronavirus (2019-nCoV) respiratory disease before the World Health Organization (WHO) declared the official name as COVID-19 in February 2020. Aim: The aim of this study is to search scientific literature in the biomedicine and analyzed current results of investigations regarding morbidity and mortality rates as consequences of COVID-19 infection of Cardiovascular diseases (CVD), which are on the top mortality and morbidity rates in almost all countries in the world, and also to propose most useful measures how to prevent CVD patients to keep themselves against COVID-19 infection. Methods: We used method of descriptive analysis of the published papers with described studies about Corona virus connected with CVD, and, also, Guidelines proposed by World Health Organization (WHO) and European Society of Cardiology (ESC), and some other international associations which are included in global fighting against COVID-10 infection. Results: After searching current scientific literature we have acknowledged that not any Evidence Based Medicine (EBM) realized study in the world during last 5 months from the time when first cases of COVID-10 infection was detected. Also, there is no unique proposed ways of treatments and drugs to protect patients, especially people over 60 years old, who are very risk group to be affected with COVID-19. Expectations that vaccine against COVID-19 will be produced optimal during at least 10 months to 2 years, and in all current Guidelines most important proposed preventive measures are the same like which one described in Strategic documents of WHO, given by pioneer of Social medicine and Health Care organization. Professor Andrija Stampar, in statements of Declaration of Primary Health Care in Alma Ata in 1978, are not so much positive. Conclusion: Frequent hand washing, avoiding crowds and contact with sick people, and cleaning and disinfecting frequently touched surfaces can help prevent coronavirus infections are the main proposal of WHO experts. Those preventive measures at least can help to everybody, including also to patients who have evidenced CVDs in their histories of illness. Physicians who work on every level of Health Care System, but especially at primary health care level and in Family Practice surgeries must follow those recommendations and teach their patients about it.

Publication Type

Journal article.

<588>

Accession Number

20203181886

Author

Pourhoseingholi, M. A.; Shojaee, S.; Ashtari, S.; Vahedian-Azimi, A.; Asadzadeh-Aghdaei, H.; Zali, M. R.

Title

Predicting the mortality due to Covid-19 by the next month for Italy, Iran and South Korea; a simulation study.

Source

Gastroenterology and Hepatology - From Bed to Bench; 2020. 13(2):177-179. 11 ref.

Publisher

Research Institute for Gastroenterology and Liver Diseases

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

**Aim:** To estimate the number of confirmed cases and the rate of death and also to investigate the cause of death in Italy, Iran and South Korea in the next month. **Background:** Growing number of confirmed and deaths cases from the coronavirus worldwide, particularly in Italy, Iran and South Korea, has resulted concerns about the future of these countries and their deterioration. Also the European region is likely to face more casualties due to the delay in the virus reaching most of its regions and, of course, as the trend continues. **Methods:** We conducted a simulation in both current and ideal situation for the next month to predict the death rate and examine the reason for the difference in Italy, Iran and South Korea individually. If we assume the cultural and political factors and age pyramids distribution are similar across regions, the differences are mainly due either to the heavier health-care burden owing to the larger population or to the medical facilities diversities. **Results:** Our results for Italy showed higher death number, but the rate would be more for Iran. South Korea is also expected to have a smaller increase in the number of confirmed cases and deaths compared to Iran and Italy by the next month. **Conclusion:** Given the prevailing conditions around the world and the increasing number of casualties, it is essential that all countries, especially those with fewer days of involvement, shall do their best to avoid major losses and damages.

Publication Type

Journal article.

<589>

Accession Number

20203180496

Author

O’connor, A. M.; Totton, S. C.; Sargeant, J. M.

Title

A rapid review of evidence of infection of pets and livestock with human-associated coronavirus diseases, SARS, MERS, and COVID-19, and evidence of the fomite potential of pets and livestock.

Source

A rapid review of evidence of infection of pets and livestock with human associated coronavirus diseases, SARS, MERS, and COVID-19, and evidence of the fomite potential of pets and livestock; 2020. :18 pp.

Publisher

Systematic reviews for animals and food

Location of Publisher

no location

Country of Publication

no country

Abstract

A rapid database review was undertaken to determine whether domestic animals can be infected with SARS-CoV- 2 and whether they could serve as fomites for SARS-CoV-2. We also assessed other human coronaviruses, SARS and MERS. Studies on natural and experimental infections were included. It was shown that cats and ferrets can become infected with SARSCoV- 2 and was detectable using polymerase chain reaction (PCR). All other species (dogs, pigs, chickens, ducks, cattle, sheep, goats, donkeys, mules, camels and horses) were rarely, if ever, positive for the human coronaviruses and did not appear to shed the viruses. No other studies were found that evaluated fur, hair, skin, feathers or hides as a source of transmission from domestic animals for SARS-CoV-2, MERS-CoV or SARS-CoV. There is evidence that cats in Wuhan, China, have antibodies to SARS-CoV-2 which appears to have developed after the outbreak.

Publication Type

Miscellaneous.



<590>

Accession Number

20203194672

Author

Taheri, M. S.; Falahati, F.; Radpour, A.; Karimi, V.; Sedaghat, A.; Karimi, M. A.

Title

Role of social media and telemedicine in diagnosis & management of COVID-19; an experience of the Iranian society of radiology.

Source

Archives of Iranian Medicine; 2020. 23(4):285-286. 7 ref.

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Publication Type

Journal article.

<591>

Accession Number

20203194671

Author

Zandifar, A.; Badrfam, R.

Title

Fighting COVID-19 in Iran; economic challenges ahead.

Source

Archives of Iranian Medicine; 2020. 23(4):284-284. 7 ref.

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Publication Type

Journal article.

<592>

Accession Number

20203194668

Author

Huang XiaoYi; Wei FengXiang; Hu Liang; Wen LiJuan; Chen Ken

Title

Epidemiology and clinical characteristics of COVID-19.

Source

Archives of Iranian Medicine; 2020. 23(4):268-271. 26 ref.

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Since December 2019, there has been an outbreak of a novel coronavirus (COVID-19) infection in Wuhan, China. Meanwhile, the outbreak also drew attention and concern from the World Health Organization (WHO). COVID-19 is another human infectious disease caused by coronavirus. The transmission of COVID-19 is potent and the infection rate is fast. Since there is no specific drug for COVID-19, the treatment is mainly symptomatic supportive therapy. In addition, it should be pointed out that patients with severe illness need more aggressive treatment and meticulous care. Recently, accurate RNA detection has been decisive for the diagnosis of COVID-19. The development of highly sensitive RT-PCR has facilitated epidemiological studies that provide insight into the prevalence, seasonality, clinical manifestations and course of COVID-19 infection. In this review, we summarize the epidemiology and characteristics of COVID-19.

Publication Type

Journal article.

<593>

Accession Number

20203194667

Author

Taghrir, M. H.; Akbarialiabad, H.; Marzaleh, M. A.

Title

Efficacy of mass quarantine as leverage of health system governance during COVID-19 outbreak: a mini policy review.

Source

Archives of Iranian Medicine; 2020. 23(4):265-267. 22 ref.

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

On January 23, 2020, the Chinese government announced the city lockdown of Wuhan. Since then, there have been controversial debates among experts about the efficacy of mass quarantine, the oldest and probably one of the most effective methods for controlling infectious disease outbreaks. The impact of health policymaking section of health system governance becomes visible to all stakeholders and the public in such emergency contexts. The success and failure of such policies should be evaluated in order to find the proper course of action for the local and international communities. In this review, we aim to investigate the efficacy of mass quarantine in China during the coronavirus disease 2019 (COVID-19) pandemic. We found good quality evidence for the effectiveness of mass quarantine during the current stage of COVID-19 pandemic, and these strategies seem to have been highly effective in controlling the spread of the disease.

Publication Type

Journal article.

<594>

Accession Number

20203194665

Author

Taghrir, M. H.; Borazjani, R.; Shiraly, R.

Title

COVID-19 and Iranian medical students; a survey on their related-knowledge, preventive behaviors and risk perception.

Source

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Background: Since December 2019, a novel coronavirus disease (COVID-19) began its journey around the world. Medical students, as frontline healthcare workers, are more susceptible to be infected by the virus. The aim of this study was to assess COVID-19 related knowledge, self-reported preventive behaviors and risk perception among Iranian medical students within the first week after the onset of the outbreak in Iran. Methods: This cross-sectional study was conducted from 26th to 28th of February, 2020. Participants were Iranian medical students (5th-7th year) whose knowledge, preventive behaviors and risk perceptions of COVID-19 were assessed using an online questionnaire. The questionnaire consisted of 26 questions including 15 items about COVID-19 related knowledge, 9 items regarding preventive measures and 2 items about COVID-19 risk perception. The validity and reliability of the questionnaire were shown to be satisfactory. Results: A total of 240 medical students completed the questionnaire. The mean age of participants was 23.67 years. The average of correct answers of knowledge was 86.96%; and 79.60% had high level of related knowledge. The average rate of practicing preventive behaviors was 94.47%; and 94.2% had high level of performance in preventive behaviors. The cumulative score of risk perception was 4.08 out of 8 which was in moderate range. Risk perception was significantly different between stagers and interns and between those being trained in emergency room (ER) and non-ER wards. There was a significant negative correlation between preventive behaviors and risk perception. Conclusion: We found a high level of COVID-19 related knowledge and self-reported preventive behaviors and moderate risk perception among Iranian medical students.

Publication Type

Journal article.

<595>

Accession Number

20203194662

Author

Moftakhar, L.; Seif, M.

Title

The exponentially increasing rate of patients infected with COVID-19 in Iran.

Source

Archives of Iranian Medicine; 2020. 23(4):235-238. 18 ref.

Publisher

Academy of Medical Sciences

Location of Publisher

Tehran

Country of Publication

Iran

Abstract

Background: Coronavirus, the cause of severe acute respiratory syndrome (COVID-19), is rapidly spreading around the world. Since the number of corona positive patients is increasing sharply in Iran, this study aimed to forecast the number of newly infected patients in the coming days in Iran. Methods: The data used in this study were obtained from daily reports of the Iranian Ministry of Health and the datasets provided by the Johns Hopkins University including the number of new infected cases from February 19, 2020 to March 21, 2020. The autoregressive integrated moving average (ARIMA) model was applied to predict the number of patients during the next thirty days. Results: The ARIMA model forecasted an exponential increase in the number of newly detected patients. The result of this study also show that if the spreading pattern continues the same as before, the number of daily new cases would be 3574 by April 20. Conclusion: Since this disease is highly contagious, health politicians need to make decisions to prevent its spread; otherwise, even the most advanced and capable health care systems would face problems for treating all infected patients and a substantial number of deaths will become inevitable.

Publication Type

Journal article.

<596>

Accession Number

20203179683

Author

Holshue, M. L.; Debolt, C.; Lindquist, S.; Lofy, K. H.; Wiesman, J.; Bruce, H.; Spitters, C.; Ericson, K.; Wilkerson, S.; Tural, A.; Diaz, G.; Cohn, A.; Fox, L.; Patel, A.; Gerber, S. I.; Kim, L.; Tong SuXiang; Lu XiaoYan; Lindstrom, S.; Pallansch, M. A.; Weldon, W. C.; Biggs, H. M.; Uyeki, T. M.; Pillai, S. K.

Title

First case of 2019 novel coronavirus in the United States.

Source

New England Journal of Medicine; 2020. 382(10):929-936. 20 ref.

Publisher

Massachusetts Medical Society

Location of Publisher

Waltham

Country of Publication

USA

Abstract

An outbreak of novel coronavirus (2019-nCoV) that began in Wuhan, China, has spread rapidly, with cases now confirmed in multiple countries. We report the first case of 2019-nCoV infection confirmed in the United States and describe the identification, diagnosis, clinical course, and management of the case, including the patient's initial mild symptoms at presentation with progression to pneumonia on day 9 of illness. This case highlights the importance of close coordination between clinicians and public health authorities at the local, state, and federal levels, as well as the need for rapid dissemination of clinical information related to the care of patients with this emerging infection.

Publication Type

Journal article.

<597>

Accession Number

20203179677

Author

Munster, V. J.; Koopmans, M.; Doremalen, N. van; Riel, D. van; Wit, E. de

Title

Perspective: a novel coronavirus emerging in China - key questions for impact assessment.

Source

New England Journal of Medicine; 2020. 382(8):692-694. 5 ref.

Publisher

Massachusetts Medical Society

Location of Publisher

Waltham

Country of Publication

USA

Abstract

The objective of the article was to discuss the prevalence, epidemiology, and outbreak of COVID-19 in China. Epidemiologic information on the pathogenicity and transmissibility of this virus obtained by means of molecular detection and serosurveillance is needed to fill in the details in the surveillance pyramid and guide the response to this outbreak. Moreover, the propensity of novel coronaviruses to spread in health care centers indicates a need for peripheral health care facilities to be on standby to identify potential cases as well.

Publication Type

Journal article.

<598>

Accession Number

20203180789

Author

Shrivastava, S. R.; Shrivastava, P. S.



Title

Minimizing the risk of international spread of coronavirus disease 2019 (COVID-19) outbreak by targeting travelers.

Source

Journal of Acute Disease; 2020. 9(2):47-48. 4 ref.

Publisher

Hainan Medical University

Location of Publisher

Haikou

Country of Publication

China

Abstract

The Coronavirus Disease-2019 (COVID-19) outbreak has become a global health emergency owing to its magnitude, attributed deaths, and its propensity to spread across the world. In-fact, owing to its quick spread across international boundaries and the resulting caseload, the disease has been declared as a Public Health Emergency of International Concern on 30 January 2020. It is worth noting that out of the 395 cases detected in other nations, 165 (41.8%) have a positive history of travel to China. As of now, the World Health Organization has not recommended for any restrictions on the travel or trade aspects, but has clearly specified that implementation of International Health Regulations should be strictly done at the airports and seaports. In conclusion, the COVID- 19 outbreak has created an alarm across the globe as the causative virus is novel in nature. However, strengthening of standard infection control practices and adoption of preventive measures for travelers can significantly minimize the threat of further transmission of the disease.

Publication Type

Journal article.

<599>

Accession Number

20203167131

Author

Title

Novel Coronavirus: how things are in Wuhan.

Source

Clinical Microbiology and Infection; 2020. 26(4):399-400. 9 ref.

Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The objective of the article was to describe the public health situation in Wuhan during the COVID-19 epidemic. Currently, healthcare workers are in a critical stage. There is a great risk of medical and clinical staff (and workers) becoming infected with 2019n-CoV because of their direct interaction with infected and suspected individuals. Working for long hours, disturbed daily routines including eating and sleeping schedules and fear of being infected are key factors that increase the risks of stress and anxiety for doctors and nurses, and may lead to their working less efficiently in terms of providing better treatment and care to patients. Specific areas have been set aside inside designated hospitals to provide services according to the severity of the disease. Suspected and confirmed cases are given diagnostic and treatment facilities in an isolated and protected environment; however, individuals in a critical condition are given treatment on a priority basis. Despite these services, new suspected and/or confirmed individuals are facing problems. The scarcity of sickbeds is causing confirmed patients to wait for a long time before they are admitted to a hospital, while the availability of sickbeds depends on recovery of already admitted patients. Overall the current measures to control the 2019n-CoV are being implemented with care and strictness. The entrances of residential communities, dormitories and public places are restricted and residents entering are monitored for temperature and related symptoms. People from Wuhan are registered and kept under medical observation in some cities in China; meanwhile, their suspected contacts may be tracked to isolate them for monitoring purposes.

Publication Type

Journal article.

<600>

Accession Number

20203195171

Author

Galanakis, C. M.

Title

The food systems in the era of the coronavirus (COVID-19) pandemic crisis.

Source

Foods; 2020. 9(4)68 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The World Health Organization (WHO) declared the outbreak of coronavirus disease (COVID-19, broadly referred to as "coronavirus") a global pandemic, while thousands of infections and deaths are reported daily. The current article explores the food systems in the era of the COVID-19 pandemic crisis. It provides insights about the properties of bioactive ingredients of foods and herbs for the support of the human immune system against infections before discussing the possibility of COVID-19 transmission through the food chain. It also highlights the global food security issues arising from the fact that one-third of the world's population is on lockdown. Finally, it underlines the importance of sustainability in the food chain in order to avoid or reduce the frequency of relevant food and health crises in the future.

Publication Type

Journal article.

<601>

Accession Number

20203179445

Author

Ayittey, F. K.; Ayittey, M. K.; Chiwero, N. B.; Kamasah, J. S.; Dzuovor, C.

Title

Economic impacts of Wuhan 2019-nCoV on China and the world. (Special Issue: New coronavirus (2019-nCoV or SARS-CoV-2) and the outbreak of the respiratory illness (COVID-19).)

Source

Journal of Medical Virology; 2020. 92(5):473-475. 22 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

The objective of the article was to report the economic impact of COVID-19 in Wuhan, China compared with the rest of the world. Currently, as China has an economy 8 to 9 times larger than it had during the SARS epidemic, and is even more connected to the rest of the world, experts believe that the total impact of the 2019-nCoV on global economy could be quite huge. As China now contributes approximately 16.3% of the world's GDP, the country has been the main growth driver worldwide, with the IMF estimating that China alone accounted for 39% of global economic growth in 2019. This implies that any slowdown in the nation's economy could likely send waves across the global economy. When the loss of commerce, trade, tourism, and major impacts on global supply chains are taken into consideration, the economic impacts of the outbreak will be vast both within China and globally. A market diagnosis completed by Bloomberg economists, concludes that China's first quarter GDP growth may slip to 4.5% year on year. According to an estimated modelling by the same experts, to analyze the expected losses to different countries across the world, the global GDP is likely to decline by roughly 0.42% in first quarter of the year due to the outbreak.

Publication Type

Journal article.

<602>

Accession Number

20203177536

Author

Porcheddu, R.; Serra, C.; Kelvin, D.; Kelvin, N.; Rubino, S.

Title

Similarity in case fatality rates (CFR) of COVID-19/SARS-COV-2 in Italy and China.

Source

Journal of Infection in Developing Countries; 2020. 14(2):125-128. 11 ref.

Publisher

Open Learning on Enteric Pathogens (OLOEP)

Location of Publisher

Sassari

Country of Publication

Italy

Abstract

As of 28 February 2020, Italy had 888 cases of SARS-CoV-2 infections, with most cases in Northern Italy in the Lombardia and Veneto regions. Travel-related cases were the main source of COVID-19 cases during the early stages of the current epidemic in Italy. The month of February, however, has been dominated by two large clusters of outbreaks in Northern Italy, south of Milan, with mainly local transmission the source of infections. Contact tracing has failed to identify patient zero in one of the outbreaks. As of 28 February 2020, twenty-one cases of COVID-19 have died. Comparison between case fatality rates in China and Italy are identical at 2.3. Additionally, deaths are similar in both countries with fatalities in mostly the elderly with known comorbidities. It will be important to develop point-of-care devices to aid clinicians in stratifying elderly patients as early as possible to determine the potential level of care they will require to improve their chances of survival from COVID-19 disease.

Publication Type

Journal article.

<603>

Accession Number

20203176842

Author

Li SiJia; Wang, Y.; Xue, J.; Zhao Nan; Zhu TingShao

Title

The impact of COVID-19 epidemic declaration on psychological consequences: a study on active Weibo users.

Source

International Journal of Environmental Research and Public Health; 2020. 17(6)36 ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

COVID-19 (Corona Virus Disease 2019) has significantly resulted in a large number of psychological consequences. The aim of this study is to explore the impacts of COVID-19 on people's mental health, to assist policy makers to develop actionable policies, and help clinical practitioners (e.g., social workers, psychiatrists, and psychologists) provide timely services to affected populations. We sample and analyze the Weibo posts from 17,865 active Weibo users using the approach of Online Ecological Recognition (OER) based on several machine-learning predictive models. We calculated word frequency, scores of emotional indicators (e.g., anxiety, depression, indignation, and Oxford happiness) and cognitive indicators (e.g., social risk judgment and life satisfaction) from the collected data. The sentiment analysis and the paired sample t-test were performed to examine the differences in the same group before and after the declaration of COVID-19 on 20 January, 2020. The results showed that negative emotions (e.g., anxiety, depression and indignation) and sensitivity to social risks increased, while the scores of positive emotions (e.g., Oxford happiness) and life satisfaction decreased. People were concerned more about their health and family, while less about leisure and friends. The results contribute to the knowledge gaps of short-term individual changes in psychological conditions after the outbreak. It may provide references for policy makers to plan and fight against COVID-19 effectively by

improving stability of popular feelings and urgently prepare clinical practitioners to deliver corresponding therapy foundations for the risk groups and affected people.

Publication Type

Journal article.

<604>

Accession Number

20203183628

Author

Yang Kai; Xiao LingYan; Liu YongFu; Shi DongYang; Lu Hu; Li TianTian; Zheng YiShan

Title

Epidemiological and clinical characteristics of coronavirus disease 2019 in non-epidemic areas: report of 57 cases. [Chinese]

Source

Journal of Third Military Medical University; 2020. 42(06):555-559. 15 ref.

Publisher

Third Military Medical University

Location of Publisher

Chongqing

Country of Publication

China

Abstract

Objective: To investigate the epidemiological and clinical characteristics of coronavirus disease 2019 (COVID-19) in non-endemic areas. Methods: From January 2020, the Nanjing Public Health Medical Center began to treat confirmed patients. Retrospective analysis was carried out in 57 patients with identified novel coronavirus-infected pneumonia and having been discharged for the epidemiological characteristics, clinical signs and symptoms, laboratory test results, and CT images. Results: The 57 patients were at an age ranging from 5 to 97 years (median 37 years), and 29 males (50.9%) and 28 females (49.1%). Among them, 35 cases had clear contact with the epidemic area Wuhan, and 16 were

clustered cases. The average incubation period was 7.4 d for the disease. In them, 54 cases occurred locally, 23 patients had fever as the first symptom, and 13 patients had normal temperature. Other main first symptoms included dry cough (14 cases, 24.6%) and body aches and fatigue (5 cases, 8.8%). The patients with decreased peripheral white blood cell count accounted for 26.3%, those with reduced lymphatic or eosinophils count for 47.4%, those with increased average platelet volume for 24.7%, elevated serum ALT or AST levels for 15.8%, raised CKMB for 5.3%, and those with decreased blood potassium for 40.4%. All patients had lung illness and were positive to nucleic acid test, and 66.7% of them got both lung involved. Of the 57 patients, 26.3% were mild and 73.7% were ordinary. Their average length of hospital stay was 10.1 d, and they had an average course of 15.6 d. All of them were treated with interferon ab1 combined with acetylcysteine, 47 cases were combined with kriging, and 18 cases with abidol. All the 57 cases were improved and discharged. Conclusion: All these cases in Najing are almost imported from the epidemic area. The clinical classification is mainly ordinary type. Low fever, dry cough, sore throat and systemic soreness, decreased lymphocytes, ground glass shadow in CT images, and positive to nucleic acids are the main clinical features of the disease.

#### Publication Type

Journal article.

<605>

#### Accession Number

20203177861

#### Author

Bordi, L.; Nicastri, E.; Scorzolini, L.; Caro, A. di; Capobianchi, M. R.; Castilletti, C.; Lalle, E.

#### Title

Differential diagnosis of illness in patients under investigation for the novel coronavirus (SARS-Cov-2), Italy, February 2020.

#### Source

Eurosurveillance; 2020. 25(8)14 ref.

#### Publisher

European Centre for Disease Prevention and Control

#### Location of Publisher

Stockholm

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Country of Publication

Sweden

Abstract

A novel coronavirus (SARS-CoV-2) has been identified as the causative pathogen of an ongoing outbreak of respiratory disease, now named COVID-19. Most cases and sustained transmission occurred in China, but travel-associated cases have been reported in other countries, including Europe and Italy. Since the symptoms are similar to other respiratory infections, differential diagnosis in travellers arriving from countries with wide-spread COVID-19 must include other more common infections such as influenza and other respiratory tract diseases.

Publication Type

Journal article.

<606>

Accession Number

20203194549

Author

Minh Duc Nguyen; Ha HoangDuc; Tran Anh Tuan; Mai Tan Lien Bang; Pham Hong Duc; Pham Minh Tong

Title

From first COVID-19 case to current outbreak: A Vietnamese report.

Source

Electronic Journal of General Medicine; 2020. 17(4)12 ref.

Publisher

Modestrum LTD, UK

Location of Publisher

London

Country of Publication

UK

## Abstract

The 2019 novel coronavirus outbreak (now recognized as SARS-CoV-2, triggering the COVID-19 disease) has spread from Wuhan throughout China and has been distributed to an increasing range of countries. Early activity has concentrated on explaining the course of the disease, reporting critical incidents, and handling the ill. Currently, Vietnam, an Association of Southeast Asian Nations (ASEAN) country that shares a long border with China, has successfully controlled COVID-19. In this article, we aimed to provide updated information regarding COVID-19 in Vietnam, from the first case to the current outbreak. We hope the information in this article will help the world understand more about the surveillance and prevention policies of Vietnam's COVID-19. The numerous lessons learned will serve as a guide for handling possible pandemics, but a permanently new global framework is expected in the immediate future.

## Publication Type

Journal article.

<607>

## Accession Number

20203194547

## Author

Addi, R. A.; Benksim, A.; Amine, M.; Cherkaoui, M.

## Title

COVID-19 outbreak and perspective in Morocco.

## Source

Electronic Journal of General Medicine; 2020. 17(4)11 ref.

## Publisher

Modestrum LTD, UK

## Location of Publisher

London

## Country of Publication

UK

## Abstract

Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China and rapidly spread across the world to become the first pandemic caused by a coronavirus. As of 26 March 2020, there are 275 cases affected by COVID-19 announced by the Moroccan government, and it possible to limit the spread of this serious disease, with the cooperation of all the citizens in respect of the measures of containment and individual protection. Also, with the announce yesterday by the Moroccan government of the authorization of use of chloroquine in treatment of COVID-19 pneumonia, COVID-19 will be soon eradicated from Morocco and hopefully from all over the world.

## Publication Type

Journal article.

<608>

## Accession Number

20203163777

## Author

Xu JiaBao; Zhao ShiZhe; Teng TieShan; Abdalla, A. E.; Zhu Wan; Xie, L.; Wang YunLong; Guo XiangQian

## Title

Systematic comparison of two animal-to-human transmitted human coronaviruses: SARS-CoV-2 and SARS-CoV.

## Source

Viruses; 2020. 12(2)109 ref. ref.

## Publisher

MDPI AG

## Location of Publisher

Basel

## Country of Publication

Switzerland

## Abstract

After the outbreak of the severe acute respiratory syndrome (SARS) in the world in 2003, human coronaviruses (HCoVs) have been reported as pathogens that cause severe symptoms in respiratory tract infections. Recently, a new emerged HCoV isolated from the respiratory epithelium of unexplained pneumonia patients in the Wuhan seafood market caused a major disease outbreak and has been named the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This virus causes acute lung symptoms, leading to a condition that has been named as "coronavirus disease 2019" (COVID-19). The emergence of SARS-CoV-2 and of SARS-CoV caused widespread fear and concern and has threatened global health security. There are some similarities and differences in the epidemiology and clinical features between these two viruses and diseases that are caused by these viruses. The goal of this work is to systematically review and compare between SARS-CoV and SARS-CoV-2 in the context of their virus incubation, originations, diagnosis and treatment methods, genomic and proteomic sequences, and pathogenic mechanisms.

## Publication Type

Journal article.

<609>

## Accession Number

20203169246

## Author

Bao YanPing; Sun YanKun; Meng ShiQiu; Shi Jie; Lu Lin

## Title

2019-nCoV epidemic: address mental health care to empower society.

## Source

Lancet (British edition); 2020. 395(10224):e37-e38. 9 ref. ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

The objective of the article was to elucidate the mental health care in the national public health campaigns of China against the COVID-19 epidemic. To efficiently cope with the 2019-nCoV outbreak, the Chinese Government has implemented rapid and comprehensive public health emergency interventions. To date, all of the 31 provincial-level regions in mainland China with confirmed 2019-nCoV cases have activated so-called level 1 public health emergency responses (i.e., the highest level of emergency public health alerts and responses within the national public health management system). The provincial governments are responsible for organising, coordinating, and handling all emergency public health treatments, disclosing information, and gathering emergency materials and facilities under the guidance of the State Council. For health-care sectors, in addition to public health interventions, dealing with public psychological barriers and performing psychological crisis intervention is included in the level 1 response. The National Health Commission has released guidelines for local authorities to promote psychological crisis intervention for patients, medical personnel, and people under medical observation during the 2019-nCoV outbreak. Experts from Peking University Sixth Hospital made six suggestions for the public to cope with mental stress and these included assessing the accuracy of information disclosed, enhancing social support systems (eg, families and friends), eliminating stigma associated with the epidemic, maintaining a normal life under safe conditions, and using the psychosocial service system, particularly telephone-based and internet-based counselling for health-care staff, patients, family members, and the public sector.

## Publication Type

Correspondence.

<610>

## Accession Number

20203165413

## Author

B&atilde;r&atilde;it&atilde;reanu, S.

## Title

CORONAVIRUS INFECTIONS: A BRIEF REVIEW.

## Source

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[www.rcvsknowledge.org](http://www.rcvsknowledge.org)

Publisher

Asociatia Generala a Medicilor Veterinari din Romania

Location of Publisher

Bucharest

Country of Publication

Romania

Abstract

In several domestic and wild animals' species, the Coronaviruses have been identified as the causative agent of respiratory, enteric or multisystem diseases, including pneumonia, enteritis, hepatitis, reproductive disease, polyserositis, encephalomyelitis, and nephritis. Bovine, horses, swine, cats, dogs, camels, ferrets, rabbits, bats, rodents, birds, and various wildlife species many develop subclinical or severe clinical coronavirus infections. Some coronaviruses have zoonotic potential. Coronaviruses can spread from animals to humans, could adapt from animals to human and then widespread in the human population without the subsequent involvement of animals. In humans, the following coronaviruses infection have been described: Severe acute respiratory syndrome coronavirus, Severe acute respiratory syndrome coronavirus type 2, Middle East Respiratory Syndrome Coronavirus, and Human Coronavirus - 229E, -NL63, -OC43 and -HKU1. The most severe outbreaks of human coronavirus infections have been COVID-19, produced by SARS-CoV-2, which was declared by the World Health Organisation as a pandemic on 11 March 2020. In animals, the following coronaviruses are most important: Bovine coronavirus (BCV), Equine coronavirus (ECoV), Transmissible gastroenteritis coronavirus of pigs (TGEV), Porcine respiratory coronavirus (PRCV), Porcine epidemic diarrhea virus (PEDV), Porcine hemagglutinating encephalomyelitis virus (PHEV), Swine acute diarrhea syndrome virus (SADS-CoV), Porcine deltacoronavirus (PDCoV), Canine enteric coronavirus (CCoV), Canine respiratory coronavirus (CRCoV), Feline coronavirus (FCoV), Infectious bronchitis virus (IBV) and Turkey coronavirus (TCoV). This review briefly presents the most important Coronavirus infections with or without zoonotic risk.

Publication Type

Journal article.

<611>

Accession Number

20203176556

## Author

Pung, R.; Chiew, C. J.; Young, B. E.; Chin, S.; Chen, M. I. C.; Clapham, H. E.; Cook, A. R.; Maurer-Stroh, S.; Toh, M. P. H. S.; Poh, C.; Low, M.; Lum, J.; Koh, V. T. J.; Mak, T. M.; Cui Lin; Lin, R. V. T. P.; He, D.; Leo YeeSin

## Title

Investigation of three clusters of COVID-19 in Singapore: implications for surveillance and response measures.

## Source

Lancet (British edition); 2020. 395(10229):1039-1046. 17 ref. ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

**Background:** Three clusters of coronavirus disease 2019 (COVID-19) linked to a tour group from China, a company conference, and a church were identified in Singapore in February, 2020. **Methods:** We gathered epidemiological and clinical data from individuals with confirmed COVID-19, via interviews and inpatient medical records, and we did field investigations to assess interactions and possible modes of transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Open source reports were obtained for overseas cases. We reported the median (IQR) incubation period of SARS-CoV-2. **Findings:** As of Feb 15, 2020, 36 cases of COVID-19 were linked epidemiologically to the first three clusters of circumscribed local transmission in Singapore. 425 close contacts were quarantined. Direct or prolonged close contact was reported among affected individuals, although indirect transmission (eg, via fomites and shared food) could not be excluded. The median incubation period of SARS-CoV-2 was 4 days (IQR 3-6). The serial interval between transmission pairs ranged between 3 days and 8 days. **Interpretation:** SARS-CoV-2 is transmissible in community settings, and local clusters of COVID-19 are expected in countries with high travel volume from China before the lockdown of Wuhan and institution of travel restrictions. Enhanced surveillance and contact tracing is essential to minimise the risk of widespread transmission in the community.

## Publication Type

Journal article.

<612>

Accession Number

20203156566

Author

Moriarty, L. F.; Plucinski, M. M.; Marston, B. J.; Kurbatova, E. V.; Knust, B.; Murray, E. L.; Pesik, N.; Rose, D.; Fitter, D.; Kobayashi, M.; Toda, M.; Canty, P. T.; Scheuer, T.; Halsey, E. S.; Cohen, N. J.; Stockman, L.; Wadford, D. A.; Medley, A. M.; Green, G.; Regan, J. J.; Tardivel, K.; White, S.; Brown, C.; Morales, C.; Yen, C.; Wittry, B.; et al.

Title

Public health responses to COVID-19 outbreaks on cruise ships - worldwide, FebruaryMarch 2020.

Source

Morbidity and Mortality Weekly Report; 2020. 69(12):347-352. 10 ref. ref.

Publisher

Epidemiology Program Office, Centers for Disease Control and Prevention (CDC)

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

The objective of the study was to report public health responses to COVID-19 outbreaks on cruise ships. COVID-19 on cruise ships poses a risk for rapid spread of disease, causing outbreaks in a vulnerable population, and aggressive efforts are required to contain spread. All persons should defer all cruise travel worldwide during the COVID-19 pandemic. Public health responses to COVID-19 outbreaks on cruise ships were aimed at limiting transmission among passengers and crew, preventing exportation of COVID-19 to other communities, and assuring the safety of travelers and responders. These responses required the coordination of stakeholders across multiple sectors, including U.S. Government departments and agencies, foreign ministries of health, foreign embassies, state and local public health departments, hospitals, laboratories, and cruise ship companies. Therefore, aggressive efforts to contain transmission on board and prevent further transmission upon disembarkation and repatriation were instituted. These efforts included travel restrictions applied to persons, movement restrictions applied to ships, infection prevention and control measures, (e.g., use of personal protective equipment for medical and cleaning staff), disinfection of the cabins of persons with suspected COVID-19, provision of communication materials, notification of state health departments, and investigation of contacts of cases identified among U.S. returned travelers.



Publication Type

Journal article.

<613>

Accession Number

20203156559

Author

Kakimoto, K.; Kamiya, H.; Yamagishi, T.; Matsui, T.; Suzuki, M.; Wakita, T.

Title

Initial investigation of transmission of COVID-19 among crew members during quarantine of a cruise ship - Yokohama, Japan, February 2020.

Source

Morbidity and Mortality Weekly Report; 2020. 69(11):312-313. 3 ref. ref.

Publisher

Epidemiology Program Office, Centers for Disease Control and Prevention (CDC)

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

The objective of the article was to examine findings from the initial phase of the cruise ship investigation into COVID-19 cases among crew members during February 4-12, 2020. On February 1, a laboratory-confirmed case of COVID-19 was identified in a passenger who had developed symptoms on January 23 and disembarked on January 25, before the ship arrived in Yokohama. Another passenger with a laboratory-confirmed case of COVID-19 had developed symptoms on January 22 and was on the ship when it arrived in Yokohama on February 3. All symptomatic passengers were tested upon arrival in Yokohama, and those with positive results were disembarked February 4 and 5. The index patient for this outbreak could not be determined. On February 5, passengers remaining on the ship were requested to observe quarantine in their cabins. Approximately two thirds of the persons on board were

passengers staying in cabins located on decks 512. The remainder were crew members, 80% of whose cabins were on decks 24. Crew members remained on board the ship at all times and had not disembarked during port calls. After quarantine began, crew members continued to perform their regular duties, delivered meals to passengers, and remained in their cabins when they were not working; symptomatic crew members were required to remain in their cabins.

Publication Type

Journal article.

<614>

Accession Number

20203156537

Author

Jernigan, D. B.

Title

Update: public health response to the Coronavirus disease 2019 outbreak - United States, February 24, 2020.

Source

Morbidity and Mortality Weekly Report; 2020. 69(8):216-219. 9 ref. ref.

Publisher

Epidemiology Program Office, Centers for Disease Control and Prevention (CDC)

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

The objective of this report was to summarize the aggressive measures that CDC, state and local health departments, multiple other federal agencies, and other partners are implementing to slow and try to contain transmission of COVID-19 in the United States. These measures require the identification of cases and contacts of persons with COVID-19 in the United States and the recommended

assessment, monitoring, and care of travelers arriving from areas with substantial COVID-19 transmission. Although these measures might not prevent widespread transmission of the virus in the United States, they are being implemented to: slow the spread of illness, provide time to better prepare state and local health departments, health care systems, businesses, educational organizations, and the general public in the event that widespread transmission occurs; and better characterize COVID-19 to guide public health recommendations and the development and deployment of medical countermeasures, including diagnostics, therapeutics, and vaccines. In the United States, the National Institutes of Health (NIH) and their collaborators are working on development of candidate vaccines and therapeutics for COVID-19. In China, multiple clinical trials of investigational therapeutics have been implemented, including two clinical trials of remdesivir, an investigational antiviral drug. An NIH randomized controlled clinical trial of investigational therapeutics for hospitalized COVID-19 patients in the United States was approved by the Food and Drug Administration; the first investigational therapeutic to be studied is remdesivir. In the absence of a vaccine or therapeutic, community mitigation measures are the primary method to respond to widespread transmission and supportive care is the current medical treatment.

Publication Type

Journal article.

<615>

Accession Number

20203179452

Author

Giovanetti, M.; Benvenuto, D.; Angeletti, S.; Ciccozzi, M.

Title

The first two cases of 2019-nCoV in Italy: where they come from? (Special Issue: New coronavirus (2019-nCoV or SARS-CoV-2) and the outbreak of the respiratory illness (COVID-19).)

Source

Journal of Medical Virology; 2020. 92(5):518-521. 13 ref. ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

A novel Coronavirus, 2019-nCoV, has been identified as the causal pathogen of an ongoing epidemic, with the first cases reported in Wuhan, China, last December 2019, and has since spread to other countries worldwide, included Europe and very recently Italy. In this short report, phylogenetic reconstruction was used to better understand the transmission dynamics of the virus from its first introduction in China focusing on the more recent evidence of infection in a couple of Chinese tourists arrived in Italy on 23rd January 2020 and labeled as Coronavirus Italian cases. A maximum clade credibility tree has been built using a dataset of 54 genome sequences of 2019-nCoV plus two closely related bat strains (SARS-like CoV) available in GenBank. Bayesian time-scaled phylogenetic analysis was implemented in BEAST 1.10.4. The Bayesian phylogenetic reconstruction showed that 2019-2020 nCoV firstly introduced in Wuhan on 25 November 2019, started epidemic transmission reaching many countries worldwide, including Europe and Italy where the two strains isolated dated back 19 January 2020, the same that the Chinese tourists arrived in Italy. Strains isolated outside China were intermixed with strains isolated in China as evidence of likely imported cases in Rome, Italy, and Europe, as well. In conclusion, this report suggests that further spread of 2019-nCoV epidemic was supported by human mobility and that quarantine of suspected or diagnosed cases is useful to prevent further transmission. Viral genome phylogenetic analysis represents a useful tool for the evaluation of transmission dynamics and preventive action.

Publication Type

Journal article.

<616>

Accession Number

20203179447

Author

Zhang Lei; Liu YunHui

Title

Potential interventions for novel coronavirus in China: a systematic review. (Special Issue: New coronavirus (2019-nCoV or SARS-CoV-2) and the outbreak of the respiratory illness (COVID-19).)

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Source

Journal of Medical Virology; 2020. 92(5):479-490. 140 ref. ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

An outbreak of a novel coronavirus (COVID-19 or 2019-CoV) infection has posed significant threats to international health and the economy. In the absence of treatment for this virus, there is an urgent need to find alternative methods to control the spread of disease. Here, we have conducted an online search for all treatment options related to coronavirus infections as well as some RNA-virus infection and we have found that general treatments, coronavirus-specific treatments, and antiviral treatments should be useful in fighting COVID-19. We suggest that the nutritional status of each infected patient should be evaluated before the administration of general treatments and the current children's RNA-virus vaccines including influenza vaccine should be immunized for uninfected people and health care workers. In addition, convalescent plasma should be given to COVID-19 patients if it is available. In conclusion, we suggest that all the potential interventions be implemented to control the emerging COVID-19 if the infection is uncontrollable.

Publication Type

Journal article.

<617>

Accession Number

20203177569

Author

Pullano, G.; Pinotti, F.; Valdano, E.; Bo&euml;lle, P. Y.; Poletto, C.; Colizza, V.

Title

Novel coronavirus (2019-nCov)Yearly-stage importation risk to Europe, January 2020.

Source

Eurosurveillance; 2020. 25(4)15 ref. ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

As at 27 January 2020, 42 novel coronavirus (2019-nCoV) cases were confirmed outside China. We estimate the risk of case importation to Europe from affected areas in China via air travel. We consider travel restrictions in place, three reported cases in France, one in Germany. Estimated risk in Europe remains high. The United Kingdom, Germany and France are at highest risk. Importation from Beijing and Shanghai would lead to higher and widespread risk for Europe.

Publication Type

Journal article.

<618>

Accession Number

20203157038

Author

Khan, S.; Ali, A.; Siddique, R.; Nabi, G.

Title

Novel coronavirus is putting the whole world on alert.

Source

Journal of Hospital Infection; 2020. 104(3):252-253. 8 ref. ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The objective of the article was to discuss the global spread and epidemiology of the 2019n-Coronavirus. A study reported that 2019n-CoV infection in most of the patients is associated with the onset of pneumonia and the development of complications including acute respiratory distress syndrome. During the first 20 days of its outbreak, 2019n-CoV has caused the death of 106 individuals and has affected 4515 individuals. However, the number of affected people is rising by the hour. The infection has spread throughout China and has reached several other countries, thus creating global concern. The control of 2019n-CoV will remain challenging as travel restrictions are lifted and potentially infectious people begin to move around more. Screening at airports is one key control measure, but already one lady has managed to mask her symptoms and signs, evading coronavirus health checks at the airport. It is not yet clear whether 2019n-CoV has the potential to cause a global pandemic. However, in the mean time, as well as the obvious concerns about the lack of specific treatment or a vaccine, the psychological and economic stresses resulting from control measures such as mass quarantining should not be underestimated.

Publication Type

Journal article.

<619>

Accession Number

20203183625

Author

Zhou Hong; Li XiaoLi; Li Bin

Title

Pay attention to 2019 coronavirus disease (COVID-19) induced sepsis immuno-suppression. [Chinese]

Source

Journal of Third Military Medical University; 2020. 42(06):539-544. 22 ref. ref.

Publisher

Third Military Medical University

Location of Publisher

Chongqing

Country of Publication

China

Abstract

2019 coronavirus disease (COVID-19) is an infectious disease caused by SARS-COV-2 virus, and lacks specifically effective treatment till now. Its clinical manifestations and the concerning studies at home and abroad have shown that viral sepsis caused by SARS-COV-2 virus has typical characteristics of pathophysiology of sepsis, that is, early cytokine storm and subsequent immunosuppression stage. At present, although great attention has been paid to the treatment and clinical research on cytokine storm, the later stage of immunosuppression is neglected. Patients' lower immunity, secondary infection and multiple organ failure are quite common, and all these lead to rapid deterioration and even death. Therefore, it is of great significance to pay attention to the investigation and treatment of sepsis immunosuppression stage caused by COVID-19, and to study the drugs with bidirectional immune regulation such as artesunate so as order to reduce the mortality of patients with severe or critical COVID-19. What's more, we strongly recommend that chloroquine phosphate should be used with great caution for severe and critical patients.

Publication Type

Journal article.

<620>

Accession Number

20203169269

Author

Chen HuiJun; Guo JuanJuan; Wang Chen; Luo Fan; Yu XueChen; Zhang Wei; Li JiaFu; Zhao DongChi; Xu Dan; Gong Qing; Liao Jing; Yang HuiXia; Hou Wei; Zhang YuanZhen



## Title

Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records.

## Source

Lancet (British edition); 2020. 395(10226):809-815. 19 ref. ref.

## Publisher

Elsevier Ltd

## Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

**Background:** Previous studies on the pneumonia outbreak caused by the 2019 novel coronavirus disease (COVID-19) were based on information from the general population. Limited data are available for pregnant women with COVID-19 pneumonia. This study aimed to evaluate the clinical characteristics of COVID-19 in pregnancy and the intrauterine vertical transmission potential of COVID-19 infection. **Methods:** Clinical records, laboratory results, and chest CT scans were retrospectively reviewed for nine pregnant women with laboratory-confirmed COVID-19 pneumonia (ie, with maternal throat swab samples that were positive for severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]) who were admitted to Zhongnan Hospital of Wuhan University, Wuhan, China, from Jan 20 to Jan 31, 2020. Evidence of intrauterine vertical transmission was assessed by testing for the presence of SARS-CoV-2 in amniotic fluid, cord blood, and neonatal throat swab samples. Breastmilk samples were also collected and tested from patients after the first lactation. **Findings:** All nine patients had a caesarean section in their third trimester. Seven patients presented with a fever. Other symptoms, including cough (in four of nine patients), myalgia (in three), sore throat (in two), and malaise (in two), were also observed. Fetal distress was monitored in two cases. Five of nine patients had lymphopenia (<10<sup>10</sup> cells per L). Three patients had increased aminotransferase concentrations. None of the patients developed severe COVID-19 pneumonia or died, as of Feb 4, 2020. Nine livebirths were recorded. No neonatal asphyxia was observed in newborn babies. All nine livebirths had a 1-min Apgar score of 8-9 and a 5-min Apgar score of 9-10. Amniotic fluid, cord blood, neonatal throat swab, and breastmilk samples from six patients were tested for SARS-CoV-2, and all samples tested negative for the virus. **Interpretation:** The clinical characteristics of COVID-19 pneumonia in pregnant women were similar to those reported for non-pregnant adult patients who developed COVID-19 pneumonia. Findings from this small group of cases suggest that there is currently no evidence for intrauterine infection caused by vertical transmission in women who develop COVID-19 pneumonia in late pregnancy.

## Publication Type

Journal article.

<621>

Accession Number

20203174964

Author

Qin XiaoShun; Zhang TaoPeng; Mmbengwa, V. M.

Title

The advice of provision and circulation of basic agricultural product under 2019 novel coronavirus in China.

Source

Journal of Agricultural Science (Toronto); 2020. 12(5):1-8. 20 ref. ref.

Publisher

Canadian Center of Science and Education

Location of Publisher

Toronto

Country of Publication

Canada

Abstract

Since December 2019, the unknown virus was the diagnosis in Wuhan city, Hubei Province, the centre of China, where was been shut down to prevent the outbreak of epidemic on 23 January 2020. As of now, the majority of Chinese people have been self-quarantine at home for more than 25 days. The lack of provision and circulation of agri-product is an essential and indispensable problem for common masses. This article describes the advice and thought of provision and circulation of agri-product under the outbreak of COVID 2019 from six aspects (government, e-business, supermarket, agri-trade market for sale, high-tech delivery as well as rural area or village) in combination of the reality of China to the other country can learn some lesson from Chinese countermeasures to deal with provision and circulation of agri-product under the outbreak of epidemic.

Publication Type

Journal article.

<622>

Accession Number

20203163629

Author

Yu Hao; Sun Xu; Solvang WeiDeng; Zhao Xu

Title

Reverse Logistics Network Design for Effective Management of Medical Waste in Epidemic Outbreaks: Insights from the Coronavirus Disease 2019 (COVID-19) Outbreak in Wuhan (China).

Source

International Journal of Environmental Research and Public Health; 2020. 17(5)91 ref. ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

The outbreak of an epidemic disease may pose significant treats to human beings and may further lead to a global crisis. In order to control the spread of an epidemic, the effective management of rapidly increased medical waste through establishing a temporary reverse logistics system is of vital importance. However, no research has been conducted with the focus on the design of an epidemic reverse logistics network for dealing with medical waste during epidemic outbreaks, which, if improperly treated, may accelerate disease spread and pose a significant risk for both medical staffs and patients. Therefore, this paper proposes a novel multi-objective multi-period mixed integer program for reverse logistics network design in epidemic outbreaks, which aims at determining the best locations of temporary facilities and the transportation strategies for effective management of the exponentially increased medical waste within a very short period. The application of the model is illustrated with a case study based on the outbreak of the coronavirus disease 2019 (COVID-19) in Wuhan, China. Even though the uncertainty of the future COVID-19 spread tendency is very high at the time of this research, several general policy recommendations can still be obtained based on computational experiments and quantitative analyses. Among other insights, the results suggest installing temporary incinerators may

be an effective solution for managing the tremendous increase of medical waste during the COVID-19 outbreak in Wuhan, but the location selection of these temporary incinerators is of significant importance. Due to the limitation on available data and knowledge at present stage, more real-world information are needed to assess the effectiveness of the current solution.

Publication Type

Journal article.

<623>

Accession Number

20203163619

Author

Wang Cuiyan; Pan Riyu; Wan XiaoYang; Tan YiLin; Xu LinKang; Ho, C. S.; Ho, R. C.

Title

Immediate Psychological Responses and Associated Factors During the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China.

Source

International Journal of Environmental Research and Public Health; 2020. 17(5)38 ref. ref.

Publisher

MDPI AG

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

Background: The 2019 coronavirus disease (COVID-19) epidemic is a public health emergency of international concern and poses a challenge to psychological resilience. Research data are needed to develop evidence-driven strategies to reduce adverse psychological impacts and psychiatric symptoms during the epidemic. The aim of this study was to survey the general public in China to better understand their levels of psychological impact, anxiety, depression, and stress during the initial stage

of the COVID-19 outbreak. The data will be used for future reference. Methods: From 31 January to 2 February 2020, we conducted an online survey using snowball sampling techniques. The online survey collected information on demographic data, physical symptoms in the past 14 days, contact history with COVID-19, knowledge and concerns about COVID-19, precautionary measures against COVID-19, and additional information required with respect to COVID-19. Psychological impact was assessed by the Impact of Event Scale-Revised (IES-R), and mental health status was assessed by the Depression, Anxiety and Stress Scale (DASS-21). Results: This study included 1210 respondents from 194 cities in China. In total, 53.8% of respondents rated the psychological impact of the outbreak as moderate or severe; 16.5% reported moderate to severe depressive symptoms; 28.8% reported moderate to severe anxiety symptoms; and 8.1% reported moderate to severe stress levels. Most respondents spent 20-24 h per day at home (84.7%); were worried about their family members contracting COVID-19 (75.2%); and were satisfied with the amount of health information available (75.1%). Female gender, student status, specific physical symptoms (e.g., myalgia, dizziness, coryza), and poor self-rated health status were significantly associated with a greater psychological impact of the outbreak and higher levels of stress, anxiety, and depression ( $p < 0.05$ ). Specific up-to-date and accurate health information (e.g., treatment, local outbreak situation) and particular precautionary measures (e.g., hand hygiene, wearing a mask) were associated with a lower psychological impact of the outbreak and lower levels of stress, anxiety, and depression ( $p < 0.05$ ). Conclusions: During the initial phase of the COVID-19 outbreak in China, more than half of the respondents rated the psychological impact as moderate-to-severe, and about one-third reported moderate-to-severe anxiety. Our findings identify factors associated with a lower level of psychological impact and better mental health status that can be used to formulate psychological interventions to improve the mental health of vulnerable groups during the COVID-19 epidemic.

#### Publication Type

Journal article.

<624>

#### Accession Number

20203167917

#### Author

Farnoosh, G.; Alishiri, G.; Zijoud, S. R. H.; Dorostkar, R.; Farahani, A. J.

#### Title

Understanding the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease (COVID-19) based on available evidence - a narrative review. [Persian]

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#### Source

Journal of Military Medicine; 2020. 22(1):fa1-fa11. 45 ref. ref.

#### Publisher

Baqiyatallah University of Medical Sciences

#### Location of Publisher

Tehran

#### Country of Publication

Iran

#### Abstract

Since December 2019, a new coronavirus, called the severe acute respiratory syndrome coronavirus 2 (SARSCoV-2), triggers pneumonia outbreak from Wuhan (Huanan seafood market) across China, which now poses major health threats to public health. The Coronavirus Disease-2019 (COVID-19) epidemic by SARS-CoV-2 is spreading worldwide, and by March 1, 2020, 67 countries, including Iran, have been affected. According to worldwide statistics, the mortality rate is 3.4%. Early symptoms of COVID-19 include pneumonia, fever, myalgia and fatigue. To date, no successful vaccine or antiviral agents has been clinically approved for COVID-19. Therefore, prevention and control of infection is a top priority for the general public. Extensive research into the SARS-CoV-2 is needed to fully elucidate its pathway and pathogenic mechanisms, and to identify potential therapeutic targets, which can be effective in developing common preventive and therapeutic measures. In this narrative review, based on evidences published until March 1, 2020, the epidemic and etiologic features of the SARS-CoV-2, its essential biological features, including its receptors and route of transmission, outline disease prevention and treatment approaches is provided. Given the origin of the Covid-19, it seems that the nutritional and health recommendations of Islam, especially Halal food and health observance, need to be addressed more throughout the world. Lack of inducing stress and anxiety among the people, besides advising and training people to abide by all the principles of health, is so important to fight against the disease. It is hoped that Covid-19 prevention, control and treatment will be achieved through vaccine and antiviral agents' production as well as health care measures in the near future.

#### Publication Type

Journal article.

<625>

#### Accession Number

20203166045

Author

Pan Xiao; Liu WeiZhi; Xu ZhengMei; Zhao Feng; Wang JiaMei; Zhou HongYu; Bai YongHai

Title

Coronavirus disease 2019-related mental health: research progress. [Chinese]

Source

Academic Journal of Second Military Medical University; 2020. 41(3):303-306. 27 ref. ref.

Publisher

Editorial Department of Academic Journal of Second Military Medical University

Location of Publisher

Shanghai

Country of Publication

China

Abstract

Coronavirus disease 2019 (COVID-19) was first reported in late December 2019, and then erupted in China. COVID-19 is characterized by strong infectivity and a high mortality rate. The public and medical staff are under great psychological pressure. Scholars at home and abroad have carried out researches on mental health during the outbreak of COVID-19. This article summarizes the current researches on mental health related to COVID-19 from three aspects: mental health policy, mental intervention measures and mental health of key population.

Publication Type

Journal article.

<626>

Accession Number

20203168972

Author

Huan ChaoLin; Wang Yeming; Li XingWang; Ren, L.; Zha JianPing; Hu Yi; Zhang Li; Fan GuoHui; Xu JiuYang; Gu XiaoYing; Cheng ZhenShun; Yu Ting; Xia Jiaan; Wei Yuan; Wu WenJuan; Xie XueLei; Yin Wen; Li Hui; Liu Min; Xiao Yan; Gao Hong; Guo Li; Xie JunGang; Wang GuangFa; Jiang RongMeng; Gao ZhanCheng; et al.

Title

Clinical features of patients infected with 2019 novel Coronavirus in Wuhan, China.

Source

Lancet (British edition); 2020. 395(10223):497-506. 37 ref. ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

**Background:** A recent cluster of pneumonia cases in Wuhan, China, was caused by a novel betacoronavirus, the 2019 novel coronavirus (2019-nCoV). We report the epidemiological, clinical, laboratory, and radiological characteristics and treatment and clinical outcomes of these patients. **Methods** All patients with suspected 2019-nCoV were admitted to a designated hospital in Wuhan. We prospectively collected and analysed data on patients with laboratory-confirmed 2019-nCoV infection by real-time RT-PCR and next-generation sequencing. Data were obtained with standardised data collection forms shared by WHO and the International Severe Acute Respiratory and Emerging Infection Consortium from electronic medical records. Researchers also directly communicated with patients or their families to ascertain epidemiological and symptom data. Outcomes were also compared between patients who had been admitted to the intensive care unit (ICU) and those who had not findings By Jan 2, 2020, 41 admitted hospital patients had been identified as having laboratory-confirmed 2019-nCoV infection. Most of the infected patients were men (30 [73%] of 41); less than half had underlying diseases (13 [32%]), including diabetes (eight [20%]), hypertension (six [15%]), and cardiovascular disease (six [15%]). Median age was 49.0 years (IQR 41.0-58.0). 27 (66%) of 41 patients had been exposed to Huanan seafood market. One family cluster was found. Common symptoms at onset of illness were fever (40 [98%] of 41 patients), cough (31 [76%]), and myalgia or fatigue (18 [44%]); less common symptoms were sputum production (11 [28%] of 39), headache (three [8%] of 38), haemoptysis (two [5%] of 39), and diarrhoea (one [3%] of 38). Dyspnoea developed in 22 (55%) of 40 patients (median time from illness onset to dyspnoea 8.0 days [IQR 5.0-13.0]). 26 (63%) of 41 patients had lymphopenia. All 41 patients had pneumonia with abnormal findings on chest CT. Complications included acute respiratory distress syndrome (12 [29%]), RNAemia (six [15%]), acute cardiac injury (five [12%]) and secondary infection (four [10%]). 13 (32%) patients were admitted to an ICU and six (15%) died. Compared with non-ICU patients, ICU patients had higher plasma levels of IL2, IL7, IL10, GSCF, IP10, MCP1, MIP1A, and TNF $\alpha$ . **Interpretation** The 2019-nCoV infection caused clusters of severe respiratory



illness similar to severe acute respiratory syndrome coronavirus and was associated with ICU admission and high mortality. Major gaps in our knowledge of the origin, epidemiology, duration of human transmission, and clinical spectrum of disease need fulfilment by future studies. Funding Ministry of Science and Technology, Chinese Academy of Medical Sciences, National Natural Science Foundation of China, and Beijing Municipal Science and Technology Commission.

Publication Type

Journal article.

<627>

Accession Number

20203159589

Author

Fatima Mukhtar; Neha Mukhtar

Title

Coronavirus (COVID-19): let's prevent not panic.

Source

Journal of Ayub Medical College; 2020. 32(1):141-144. 18 ref. ref.

Publisher

Ayub Medical College

Location of Publisher

Abbottabad

Country of Publication

Pakistan

Abstract

It was on 31st December 2019, that a cluster of pneumonia cases was reported to the World Health Organization (WHO) by China. The initial investigations revealed the cases to be due to a previously unknown "never before seen strain of coronavirus". Coronaviruses are a group of viruses, which are normally present among animals such as cows, bats, camels and cats. The disease was officially named COVID-19 by WHO on 11th February 2020. The International Committee on Taxonomy of Viruses named

the virus as SARS-CoV-2 due to its resemblance to SARS coronavirus. According to WHO's Situation Report-28 as of 17th February 2020, globally there were 71,429 confirmed cases, which included both laboratories confirmed and clinically diagnosed cases (applicable only to Hubei province of China). Cases are clinically diagnosed based on their signs and symptoms and chest x-rays without laboratory testing. More than 99% of these are in China i.e. 70,635 and 794 are outside China. The cases reported outside of China belong to 25 countries in various regions of WHO: China having the epicenter of the disease bears the greatest brunt, with 1772 deaths. The three deaths outside China have been reported in Philippines, Japan and France. The case fatality rate of COVID-19 ranges between 2-3% A wide spectrum of disease, ranging from mild to severe, has been reported in confirmed cases of COVID-19. Respiratory symptoms, fever, cough, dyspnoea, myalgia, fatigue, breathing difficulties and bilateral lung infiltrates on C.T are common findings. Pakistan so far has not reported any confirmed case of COVID-19. Government is showing its commitment towards the threat of importation. This novel coronavirus, called as a "devil" by Chinese Prime Minister, Xi Ping is really an enigma.

#### Publication Type

Journal article.

<628>

#### Accession Number

20203157039

#### Author

Cheng, V. C. C.; Wong, S. C.; To, K. K. W.; Ho, P. L.; Yuen, K. Y.

#### Title

Preparedness and proactive infection control measures against the emerging novel coronavirus in China.

#### Source

Journal of Hospital Infection; 2020. 104(3):254-255. 8 ref. ref.

#### Publisher

Elsevier Ltd

#### Location of Publisher

Oxford

## Country of Publication

UK

## Abstract

The objective of the article was to present the proactive infection control measures for immediate prevention against the emerging novel coronavirus due to such imported cases into Hong Kong. Fever screening has been set up at the airport and high-speed rail station, focusing particularly on flights and trains from Wuhan. Travellers with fever  $\geq 38$  degrees Celsius are referred to public hospitals for assessment. In the public hospital system, the key measures include a surveillance system to identify suspected cases for early isolation in an airborne infection isolation room (AIIR). Standard, contact, droplet and airborne precautions are implemented during patient care practices for the suspected cases, before the mode of transmission is known. The surveillance definition comprises clinical criteria plus a travel history to Wuhan in the 14 days before onset of symptoms, irrespective of any wet market exposure. For the purpose of surveillance, triage stations have been set up in the accident and emergency departments (AEDs) and outpatient clinics, where personal protective equipment (PPE) includes surgical mask, face shield or equivalent, and gown as minimum. Patients fulfilling the clinical and epidemiological criteria are isolated immediately in an AIIR for further assessment. Face-to-face right-on-time education has been provided for frontline healthcare workers in the AEDs, acute medical wards, isolation wards, intensive care units, general wards, ambulatory day centres, physiotherapy, occupational therapy and pharmacy. In addition, open staff forums were provided during the first week of preparedness in the hospitals. During the training sessions, staff were reminded to be alert to the identification of suspected cases, and to use infection control measures by wearing an N95 respirator, face shield or equivalent, gloves and gown when performing aerosol-generating procedures on all patients in both AIIRs and general wards, in case suspected patients had been missed by the surveillance system. In addition, the opportunity was taken to remind staff of the administrative support of the hospital preparedness plan for emerging infectious diseases, including waste and linen management, environmental cleaning and supply of PPE.

## Publication Type

Correspondence.

<629>

## Accession Number

20203155179

## Author

Title

Potential association between COVID-19 mortality and health-care resource availability.

Source

Lancet Global Health; 2020. 8(4):e480-e480. 3 ref. ref.

Publisher

Elsevier

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The objective of the article was to present the inequalities relating to mortality rate from COVID-19 between Wuhan (>3%), different regions of Hubei (about 29% on average), and across the other provinces of China (about 07% on average), likely to be related to the rapid escalation in the number of infections around the epicentre of the outbreak, which has resulted in an insufficiency of health-care resources, thereby negatively affecting patient outcomes in Hubei, while this has not yet been the situation for the other parts of China. Plotting mortality against the incidence of COVID-19 (cumulative number of confirmed cases since the start of the outbreak, per 10,000 population) showed a significant positive correlation suggesting that mortality is correlated with health-care burden. In reality, there are substantial regional disparities in health-care resource availability and accessibility in China. Such disparities might partly explain the low mortality rates despite high numbers of cases in the most developed southeastern coastal provinces, such as Zhejiang (0 deaths among 1171 confirmed cases) and Guangdong (four deaths among 1322 cases). Acknowledging the potential association of mortality with health-care resource availability might help other regions of China, which are now beginning to struggle with this outbreak, to be better prepared.

Publication Type

Correspondence.

<630>

Accession Number

20203158037

Author

Zhong BaoLiang; Luo Wei; Li HaiMei; Zhang QianQian; Liu XiaoGe; Li WenTian; Li Yi

Title

Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. (Special Issue: The global battle against SARS-CoV-2 and COVID-19.)

Source

International Journal of Biological Sciences; 2020. 16(10):1745-1752. 22 ref. ref.

Publisher

Ivyspring International Publisher Pty Ltd

Location of Publisher

Sydney

Country of Publication

Australia

Abstract

Unprecedented measures have been adopted to control the rapid spread of the ongoing COVID-19 epidemic in China. People's adherence to control measures is affected by their knowledge, attitudes, and practices (KAP) towards COVID-19. In this study, we investigated Chinese residents' KAP towards COVID-19 during the rapid rise period of the outbreak. An online sample of Chinese residents was successfully recruited via the authors' networks with residents and popular media in Hubei, China. A self-developed online KAP questionnaire was completed by the participants. The knowledge questionnaire consisted of 12 questions regarding the clinical characteristics and prevention of COVID-19. Assessments on residents' attitudes and practices towards COVID-19 included questions on confidence in winning the battle against COVID-19 and wearing masks when going out in recent days. Among the survey completers (n=6910), 65.7% were women, 63.5% held a bachelor degree or above, and 56.2% engaged in mental labor. The overall correct rate of the knowledge questionnaire was 90%. The majority of the respondents (97.1%) had confidence that China can win the battle against COVID-19. Nearly all of the participants (98.0%) wore masks when going out in recent days. In multiple logistic regression analyses, the COVID-19 knowledge score (OR: 0.75-0.90, P<0.001) was significantly associated with a lower likelihood of negative attitudes and preventive practices towards COVID-2019. Most Chinese residents of a relatively high socioeconomic status, in particular women, are knowledgeable about COVID-19, hold optimistic attitudes, and have appropriate practices towards COVID-19. Health education programs aimed at improving COVID-19 knowledge are helpful for Chinese residents to hold optimistic attitudes and maintain appropriate practices. Due to the limited sample

representativeness, we must be cautious when generalizing these findings to populations of a low socioeconomic status.

Publication Type

Journal article.

<631>

Accession Number

20203158034

Author

Li Wen; Yang Yuan; Liu ZiHan; Zhao YanJie; Zhang Qinge; Zhang Ling; Cheung, T.; Xiang YuTao

Title

Progression of mental health services during the COVID-19 outbreak in China. (Special Issue: The global battle against SARS-CoV-2 and COVID-19.)

Source

International Journal of Biological Sciences; 2020. 16(10):1732-1738. 55 ref. ref.

Publisher

Ivyspring International Publisher Pty Ltd

Location of Publisher

Sydney

Country of Publication

Australia

Abstract

The novel coronavirus disease (COVID-19) has been rapidly transmitted in China, Macau, Hong Kong, and other Asian and European counterparts. This COVID-19 epidemic has aroused increasing attention nationwide. Patients, health professionals, and the general public are under insurmountable psychological pressure which may lead to various psychological problems, such as anxiety, fear, depression, and insomnia. Psychological crisis intervention plays a pivotal role in the overall deployment of the disease control. The National Health Commission of China has summoned a call for emergency psychological crisis intervention and thus, various mental health associations and organizations have

established expert teams to compile guidelines and public health educational articles/videos for mental health professionals and the general public alongside with online mental health services. In addition, mental health professionals and expert groups are stationed in designated isolation hospitals to provide on-site services. Experts have reached a consensus on the admission of patients with severe mental illness during the COVID-19 outbreak in mental health institutions. Nevertheless, the rapid transmission of the COVID-19 has emerged to mount a serious challenge to the mental health service in China.

Publication Type

Journal article.

<632>

Accession Number

20203158031

Author

Yang Yang; Islam, M. S.; Wang Jin; Li Yuan; Chen Xin

Title

Traditional Chinese medicine in the treatment of patients infected with 2019-new coronavirus (SARS-CoV-2): a review and perspective. (Special Issue: The global battle against SARS-CoV-2 and COVID-19.)

Source

International Journal of Biological Sciences; 2020. 16(10):1708-1717. 119 ref. ref.

Publisher

Ivyspring International Publisher Pty Ltd

Location of Publisher

Sydney

Country of Publication

Australia

Abstract

Currently, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2, formerly known as 2019-nCoV, the causative pathogen of Coronavirus Disease 2019 (COVID-19)) has rapidly spread across China and around the world, causing an outbreak of acute infectious pneumonia. No specific anti-virus

drugs or vaccines are available for the treatment of this sudden and lethal disease. The supportive care and non-specific treatment to ameliorate the symptoms of the patient are the only options currently. At the top of these conventional therapies, greater than 85% of SARS-CoV-2 infected patients in China are receiving Traditional Chinese Medicine (TCM) treatment. In this article, relevant published literatures are thoroughly reviewed and current applications of TCM in the treatment of COVID-19 patients are analyzed. Due to the homology in epidemiology, genomics, and pathogenesis of the SARS-CoV-2 and SARS-CoV, and the widely use of TCM in the treatment of SARS-CoV, the clinical evidence showing the beneficial effect of TCM in the treatment of patients with SARS coronavirus infections are discussed. Current experiment studies that provide an insight into the mechanism underlying the therapeutic effect of TCM, and those studies identified novel naturally occurring compounds with anti-coronaviral activity are also introduced.

#### Publication Type

Journal article.

<633>

#### Accession Number

20203158027

#### Author

Deng, C. X.

#### Title

Special issue: the global battle against SARS-CoV-2 and COVID-19. (Special Issue: The global battle against SARS-CoV-2 and COVID-19.)

#### Source

International Journal of Biological Sciences; 2020. 16(10):1676-1766.

#### Publisher

Ivyspring International Publisher Pty Ltd

#### Location of Publisher

Sydney

#### Country of Publication

Australia



## Abstract

This special issue contains 11 articles which share the understanding of SARS-CoV-2 and COVID-19 from different angles, such as the key events occurred during the early outbreak, basic characteristics of the pathogen, signs and symptoms of the infected patients, possible transmission pathways of the virus, understanding on the origin and evolution of the virus, as well as the chemotherapeutic options under development, the zoonotic origins and interspecies transmission, the evaluation of SARS-CoV-2 RNA shedding in clinical specimens, presentation of clinical evidence showing the beneficial effect of traditional Chinese medicine (TCM) in the treatment of the patients, the usage of therapeutic neutralizing antibodies (NAb)s to control the spread and re-emergence of SARS-CoV-2, the implication of the endocytic pathway and autophagy in viral infection, the increasing infection rate among health workers in China, concluding with a comprehensive review on what has been learned so far about the epidemiology, etiology, virology, diagnosis, treatment, prognosis, and prevention of the disease in comparison with SARS and MERS.

## Publication Type

Journal issue.

<634>

## Accession Number

20203150831

## Author

Li CuiLian; Chen LiJia; Chen XueYu; Zhang MingZhi; Pang ChiPui; Chen HaoYu

## Title

Retrospective analysis of the possibility of predicting the COVID-19 outbreak from internet searches and social media data, China, 2020.

## Source

Eurosurveillance; 2020. 25(10)10 ref. ref.

## Publisher

European Centre for Disease Prevention and Control

## Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

The peak of Internet searches and social media data about the coronavirus disease 2019 (COVID-19) outbreak occurred 10-14 days earlier than the peak of daily incidences in China. Internet searches and social media data had high correlation with daily incidences, with the maximum  $r > 0.89$  in all correlations. The lag correlations also showed a maximum correlation at 8-12 days for laboratory-confirmed cases and 6-8 days for suspected cases.

Publication Type

Journal article.

<635>

Accession Number

20203158030

Author

Lo IekLong; Lio ChonFu; Cheong HouHon; Lei Chinlon; Cheong TakHong; Zhong Xu; Tian Yakun; Sin, N. N.

Title

Evaluation of SARS-CoV-2 RNA shedding in clinical specimens and clinical characteristics of 10 patients with COVID-19 in Macau. (Special Issue: The global battle against SARS-CoV-2 and COVID-19.)

Source

International Journal of Biological Sciences; 2020. 16(10):1698-1707. 24 ref. ref.

Publisher

Ivyspring International Publisher Pty Ltd

Location of Publisher

Sydney

Country of Publication

Australia

## Abstract

As a city famous for tourism, the public healthcare system of Macau SAR has been under great pressure during the outbreak of the Coronavirus Disease 2019 (COVID-19). In this study, we report clinical and microbiological features of ten COVID-19 patients enrolled in the Centro Hospitalar Conde de Sao Januario (CHCSJ) between January 21 to February 16, 2020. Clinical samples from all patients including nasopharyngeal swab (NPS)/sputum, urine, and feces were collected for serial virus RNA testing by standard qRT-PCR assay. In total, seven were imported cases and three were local cases. The median duration from Macau arrival to admission in imported cases was 3 days. Four patients required oxygen therapy but none of them needed machinal ventilation. No fatal cases were noted. The most common symptoms were fever (80%) and diarrhea (80%). In the "Severe" group, there was significantly more elderly patients ( $p=0.045$ ), higher lactate dehydrogenase levels ( $p=0.002$ ), and elevated C-Reactive protein levels compared to the "Mild to Moderate" group ( $p<0.001$ ). There were positive SARS-CoV-2 RNA signals in all patients' NPS and stool specimens but negative in all urine specimens. Based on our data on SARS-CoV-2 RNA shedding in stool and the possibility of a lag in viral detection in NPS specimens, the assessment of both fecal and respiratory specimen is recommended to enhance diagnostic sensitivity, and also to aid discharge decision before the role of viral RNA shedding in stool is clarified.

## Publication Type

Journal article.

<636>

## Accession Number

20203152848

## Author

Rajbhandari, B.; Phuyal, N.; Shrestha, B.; Thapa, M.

## Title

Air medical evacuation of Nepalese citizen during epidemic of COVID-19 from Wuhan to Nepal.

## Source

JNMA, Journal of the Nepal Medical Association; 2020. 58(222):125-133. 7 ref. ref.

## Publisher

Nepal Medical Association

Location of Publisher

Kathmandu

Country of Publication

Nepal

Abstract

In December 2019, the world was disrupted by the news of a new strain of virus known as Novel Corona virus, taking lives of many in China. Wuhan, the capital of Central China's Hubei province is said to be the place where the outbreak started. The city went on lockdown as the disease spread rapidly. After the lockdown, most countries like India and Bangladesh airlifted their citizens who were studying in Wuhan. Similarly, Nepal also has many youth studying medicine in Wuhan. Pleas for help from the students reached the government. This was the first encounter of such experience for Nepal government. With the help of Ministry of Health, Ministry of foreign affair, Health Emergency Organizing committee, Epidemiology and Disease Control Division, Nepal Army Hospital, Nepal Police Hospital, Waste Management team, Nepal Ambulance service, Tribhuvan international Airport Authorities and Royal Airlines the government of Nepal planned, organized and successfully brought back all the 175 students on 15 th February 2019 from Wuhan, China. The present article aims to share the experience, the challenges faced and recommendations for future similar cases.

Publication Type

Journal article.

<637>

Accession Number

20203142750

Author

John, T. J.

Title

How prepared is India to control the COVID-19 pandemic?

Source

Economic and Political Weekly; 2020. 55(11)9 ref. ref.

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Publisher

Sameeksha Trust

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The SARS-CoV-2 infection, COVID-19, has reached many places in India, from Kerala to Kashmir. With local spread occurring from infection seeded by importations, a nationwide epidemic of unprecedented seriousness is imminent. The Prime Minister should assume leadership immediately and a full-time war-room, run by a task force with the best national experts, must be set up, and immediate, medium- and long-term strategies designed and implemented. We have lost one month already.

Publication Type

Journal article.

<638>

Accession Number

20203076520

Author

Xu JiuYang; Jia WenXu; Wang PengFei; Zhang SenYan; Shi XuanLing; Wang XinQuan; Zhang LinQi

Title

Antibodies and vaccines against Middle East respiratory syndrome coronavirus.

Source

Emerging Microbes and Infections; 2019. 8(1):841-856. 97 ref.

Publisher

Taylor & Francis

Location of Publisher

Abingdon

Country of Publication

UK

Abstract

The Middle East respiratory syndrome coronavirus (MERS-CoV) has spread through 27 countries and infected more than 2,200 people since its first outbreak in Saudi Arabia in 2012. The high fatality rate (35.4%) of this novel coronavirus and its persistent wide spread infectiousness in animal reservoirs have generated tremendous global public health concern. However, no licensed therapeutic agents or vaccines against MERS-CoV are currently available and only a limited few have entered clinical trials. Among all the potential targets of MERS-CoV, the spike glycoprotein (S) has been the most well-studied due to its critical role in mediating viral entry and in inducing a protective antibody response in infected individuals. The most notable studies include the recent discoveries of monoclonal antibodies and development of candidate vaccines against the S glycoprotein. Structural characterization of MERS-CoV S protein bound with these monoclonal antibodies has provided insights into the mechanisms of humoral immune responses against MERS-CoV infection. The current review aims to highlight these developments and discuss possible hurdles and strategies to translate these discoveries into ultimate medical interventions against MERS-CoV infection.

Publication Type

Journal article.

<639>

Accession Number

20203073109

Author

Li BingXiao; Zheng LanLan; Li HaiYan; Ding QingWen; Wang YaBin; Wei ZhanYong

Title

Porcine deltacoronavirus causes diarrhea in various ages of field-infected pigs in China.

Source

Bioscience Reports; 2019. 39(9):BSR20190676. 32 ref.

Publisher

Portland Press Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Porcine deltacoronavirus (PDCoV) is a novel coronavirus that causes acute diarrhea in suckling piglets. In Henan province of China, three swine farms broke out diarrhea in different ages of pigs during June of 2017, March of 2018 and January of 2019, respectively. PCR method, Taqman real-time RT-PCR method, sequencing, histopathology and immunohistochemistry (IHC) were conducted with the collected samples, and the results showed that PDCoV was detected among the suckling piglets, commercial fattening pigs and sows with diarrhea. PDCoV-infected suckling piglets were characterized with thin and transparent intestinal walls from colon to caecum, spot hemorrhage at mesentery and intestinal bleeding. PDCoV RNA was detected in multiple organs and tissues by Taqman real-time RT-PCR, which had high copies in ileum, inguinal lymph node, rectum and spleen. PDCoV antigen was detected in the basal layer of jejunum and ileum by IHC. In this research, we found that PDCoV could infect various ages of farmed pigs with watery diarrhea and anorexia in different seasons in a year.

Publication Type

Journal article.

<640>

Accession Number

20203004579

Author

Al-Knawy, B. A.; Al-Kadri, H. M. F.; Mahmoud Elbarbary; Yaseen Arabi; Balkhy, H. H.; Clark, A.

Title

Perceptions of postoutbreak management by management and healthcare workers of a Middle East Respiratory Syndrome outbreak in a tertiary care hospital: a qualitative study.

Source

BMJ Open; 2019. 9(5):e017476. 33 ref.

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[www.rcvsknowledge.org](http://www.rcvsknowledge.org)

Publisher

BMJ Publishing Group

Location of Publisher

London

Country of Publication

UK

Abstract

**Objectives:** This study examines perceptions of the operational and organisational management of a major outbreak of Middle East Respiratory Syndrome (MERS) caused by a novel coronavirus (MERS-CoV) in the Kingdom of Saudi Arabia (KSA). Perspectives were sought from key decision-makers and clinical staff about the factors perceived to promote and inhibit effective and rapid control of the outbreak. **Setting:** A large teaching tertiary healthcare centre in KSA; the outbreak lasted 6 weeks from June 2015. **Participants:** Data were collected via individual and focus group interviews with 28 key informant participants (9 management decision-makers and 19 frontline healthcare workers). **Design:** We used qualitative methods of process evaluation to examine perceptions of the outbreak and the factors contributing to, or detracting from successful management. Data were analysed using qualitative thematic content analysis. **Results:** Five themes and 15 subthemes were found. The themes were related to: (1) the high stress of the outbreak, (2) factors perceived to contribute to outbreak occurrence, (3) factors perceived to contribute to success of outbreak control, (4) factors inhibiting outbreak control and (5) long-term institutional gains in response to the outbreak management. **Conclusion:** Management of the MERS-CoV outbreak at King Abdulaziz Medical City-Riyadh was widely recognised by staff as a serious outbreak of local and national significance. While the outbreak was controlled successfully in 6 weeks, progress in management was inhibited by a lack of institutional readiness to implement infection control (IC) measures and reduce patient flow, low staff morale and high anxiety. Effective management was promoted by greater involvement of all staff in sharing learning and knowledge of the outbreak, developing trust and teamwork and harnessing collective leadership. Future major IC crises could be improved via measures to strengthen these areas, better coordination of media management and proactive staff counselling and support.

Publication Type

Journal article.

<641>

Accession Number



20203003547

Author

Yuen KwokYung

Title

The Belt and Road Initiative: challenges and opportunities in tackling emerging infectious diseases.  
(Special issue.)

Source

Asian Pacific Journal of Tropical Medicine; 2018. 11(13 (Supl.)):13-48.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

The majority of emerging infectious disease agents affecting human are RNA viruses that originate from animals. Globalization and climate changes continue to reshape the geographical distribution of humans, animals, vectors, and microbes, and allow their mixing to occur at an unprecedentedly high frequency. These have led to interspecies transmission of numerous emerging pathogens in the past decades, such as avian (H5N1 and H7N9) and pandemic (H1N1) influenza viruses, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) coronaviruses. The increasing demand for food, sex, and drugs associated with the rising, mobile and ageing populations and the economic growth in the rapidly developing geographical regions involved in the Belt and Road Initiative may lead to outbreaks of zoonoses, sexually transmitted diseases, antimicrobial resistance, and infections associated with contaminated pharmaceutical products. These outbreaks often occur in the setting of marked lagging in hygiene, public health and regulatory measures and are accompanied by microbial genome adaptation to the changing microbiomes in human, animal and the ecosystem. The outbreak of SARS in 2003 has sparked an explosion of novel coronavirus discovery by virological surveillance in animals and human. The number of coronaviruses has increased from 10 before 2003 to over 40 with complete genomes within the past 14 years. Except for HCoV-HKU1 and HCoV-NL63 which are found in human, the majority of these newly discovered coronaviruses are found in bats and birds. In addition to enhancing our understanding in the phylogeny and evolution of coronaviruses, animal surveillance for novel viruses has strategic importance in the control of emerging infectious diseases through genomic analysis, study of pathogenesis, and development of rapid diagnostic tests, antimicrobials, vaccines and infection control strategies.

Publication Type

Journal article.

<642>

Accession Number

20193275392

Author

Zhou Ling; Sun Yuan; Lan Tian; Wu RuiTing; Chen JunWei; Wu ZiXian; Xie QingMei; Zhang XiangBin; Ma JingYun

Title

Retrospective detection and phylogenetic analysis of swine acute diarrhoea syndrome coronavirus in pigs in southern China.

Source

Transboundary and Emerging Diseases; 2019. 66(2):687-695.

Publisher

Wiley

Location of Publisher

Berlin

Country of Publication

Germany

Abstract

Swine acute diarrhoea syndrome coronavirus (SADS-CoV), a novel coronavirus, was first discovered in southern China in January 2017 and caused a large scale outbreak of fatal diarrheal disease in piglets. Here, we conducted a retrospective investigation of 236 samples from 45 swine farms with a clinical history of diarrheal disease to evaluate the emergence and the distribution of SADS-CoV in pigs in China. Our results suggest that SADS-CoV has emerged in China at least since August 2016. Meanwhile, we detected a prevalence of SADS-CoV (43.53%), porcine deltacoronavirus (8.83%), porcine epidemic diarrhoea virus (PEDV) (78.25%), rotavirus (21.77%), and transmissible gastroenteritis virus (0%), and we also found the co-infection of SADS-CoV and PEDV occurred most frequently with the rate of 17.65%. We screened and obtained two new complete genomes, five N and five S genes of SADS-CoV. Phylogenetic analysis based on these sequences revealed that all SADS-CoV sequences in this study clustered with previously reported SADS-CoV strains to form a well defined branch that grouped

with the bat coronavirus HKU2 strains. This study is the first retrospective investigation for SADS-CoV and provides the epidemiological information of this new virus in China, which highlights the urgency to develop effective measures to control SADS-CoV.

Publication Type

Journal article.

<643>

Accession Number

20193225367

Author

Al-Amri, S.; Rishi Bharti; Alsaleem, S. A.; Al-Musa, H. M.; Shweta Chaudhary; Al-Shaikh, A. A.

Title

Knowledge and practices of primary health care physicians regarding updated guidelines of MERS-CoV infection in Abha city.

Source

Journal of Family Medicine and Primary Care; 2019. 8(2):455-461. 19 ref.

Publisher

Medknow Publications

Location of Publisher

Mumbai

Country of Publication

India

Abstract

Background: Human coronaviruses (hCoV) usually cause mild to moderate upper respiratory tract illnesses. The novel coronavirus (nCoV), or Middle East respiratory syndrome coronavirus (MERS-CoV), is a particular strain different from any other known hCoV with the possibility of human and also zoonotic transmissions. The aim of the study to assess primary health care (PHC) physicians' knowledge and adherence regarding Saudi Ministry of Health guidelines regarding MERS-CoV. Materials and Methods: A cross-sectional study design was followed to include 85 PHC physicians in Abha city. An

interview questionnaire has been designed by the researcher that was used to assess knowledge and practices of PHC physicians regarding diagnosis and management of MERS-CoV. It includes personal characteristics, the MERS-CoV knowledge assessment questionnaire, and practices related to adherence toward guidelines regarding MERS-CoV. Results: PHC physicians' knowledge gaps regarding MERS-CoV included protected exposure (32.9%), highest seasonal incidence of MERS-CoV in Saudi Arabia (60%), relation between incidence of MERS-CoV and overcrowding (62.4%), case fatality of MERS-CoV cases (63.5%), and collecting specimens from MERS-CoV patients (64.7%). The knowledge of PHC physicians about MERS-CoV was poor among 5.9%, good among 63.5%, and excellent among 30.6%. Personal protective equipment to be used when seeing suspected cases of MERS-CoV infection were mainly the mask (94.1%), gloves (78.8%), the gown (60%), goggles (31.8%), and the cap (22.4%). All participants stated that the most important standard precaution that should be applied when seeing a case of MERS-CoV infection is hand washing, whereas 97.6% stated that the most important respiratory precaution to prevent transmission of respiratory infections in PHC setting when seeing a case of MERS-CoV infection is masking and separation of suspected MERS-CoV patients, and 81.2% stated that upon exit from the room of a MERS-CoV patient, the physician should remove and discard personal protective equipment. PHC physicians' knowledge about MERS-CoV differed significantly according to their nationality ( $P=0.038$ ), with non-Saudi physicians expressing higher percent of excellent knowledge than Saudi physicians (40% and 20%, respectively). Those who attended continuing medical education (CME) activities had significantly higher percent of excellent knowledge than those who did not attend a CME activity (55.6% and 23.9%, respectively,  $P=0.011$ ). PHC physicians' knowledge did not differ significantly according to their age, gender, qualification, experience in PHC, and practice-related adherence to guidelines. PHC physicians' practice-related adherence to guidelines about MERS-CoV differed significantly according to their position ( $P=0.035$ ), with specialists having the highest percent of excellent practice (13%). Conclusions: There are knowledge gaps among PHC physicians in Abha city, and their practice is suboptimal regarding MERS-CoV infection. Less than one-fourth of PHC physicians attend CME activities about MERS-CoV infection. However, significantly less practice-related adherence to guidelines are associated with Saudi PHC physicians, those who did not attend a related CME activity, and MBBS qualified physicians' general practitioners. To increase awareness, more CME activities related to MERS-CoV infection management needs to be organized.

#### Publication Type

Journal article.

<644>

#### Accession Number

20193200490

## Author

Wu, J. L.; Mai, K. J.; Li Di; Wu, R. T.; Wu, Z. X.; Tang, X. Y.; Li, Q. N.; Sun Yuan; Lan Tian; Zhang, X. B.; Ma, J. Y.

## Title

Expression profile analysis of 5-day-old neonatal piglets infected with porcine Deltacoronavirus.

## Source

BMC Veterinary Research; 2019. 15(117):(16 April 2019). 25 ref.

## Publisher

BioMed Central Ltd

## Location of Publisher

London

## Country of Publication

UK

## Abstract

**Background:** Porcine deltacoronavirus (PDCoV) is a novel coronavirus that can cause diarrhea in nursing piglets. This study was aimed to investigate the roles of host differentially expressed genes on metabolic pathways in PDCoV infections. **Results:** Twenty thousand six hundred seventy-four differentially expressed mRNAs were identified in 5-day-old piglets responded to PDCoV experimental infections. Many of these genes were correlated to the basic metabolism, such as the peroxisome proliferator-activated receptor (PPAR) signaling pathway which plays a critical role in digestion. At the same time, in the PPAR pathway genes of fatty acid-binding protein (FABP) family members were observed with remarkably differential expressions. The differential expressed genes were associated with appetite decrease and weight loss of PDCoV- affected piglets. **Discussion:** Fatty acid-binding protein 1 (FABP1) and fatty acid-binding protein 3 (FABP3) were found to be regulated by PDCoV. These two genes not only mediate fatty acid transportation to different cell organelles such as mitochondria, peroxisome, endoplasmic reticulum and nucleus, but also modulate fatty acid metabolism and storage as a signaling molecule outside the cell. Therefore, it can be preliminarily concluded that PPAR differential expression caused by PDCoV was mostly associated with weight loss and death from emaciation. **Conclusions:** The host differentially expressed genes were associated with infection response, metabolism signaling and organismal systems signaling pathways. The genes of FABP family members in the PPAR signaling pathway were the most highly altered and played important roles in metabolism. Alteration of these genes were most likely the reason of weight loss and other clinical symptoms. Our results provided new insights into the metabolic mechanisms and pathogenesis of PDCoV infection. **Methods:** Animal experiment, Determination of viral growth by real-time RT-PCR, Histopathology, Immunohistochemical staining, Microarray analysis.

## Publication Type

Journal article.

<645>

Accession Number

20193001484

Author

Rafik Harrath; Duhier, F. M. A.

Title

Sero-prevalence of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) specific antibodies in dromedary camels in Tabuk, Saudi Arabia.

Source

Journal of Medical Virology; 2018. 90(8):1285-1289. 25 ref.

Publisher

Wiley

Location of Publisher

Hoboken

Country of Publication

USA

Abstract

The Middle East Respiratory Syndrome Coronavirus (MERS-CoV) is a novel Coronavirus which was responsible of the first case of human acute respiratory syndrome in the Kingdom of Saudi Arabia (KSA), 2012. Dromedary camels are considered as potential reservoirs for the virus and seem to be the only animal host which may transmit the infection to human. Further studies are required to better understand the animal sources of zoonotic transmission route and the risks of this infection. A primary sero-prevalence study of MERS-CoV preexisting neutralizing antibodies in Dromedary camel serum was conducted in Tabuk, western north region of KSA, in order to assess the seropositivity of these animals and to explain their possible role in the transmission of the infection to Human. One hundred seventy one (171) serum samples were collected from healthy dromedary camels with different ages and genders in Tabuk city and tested for specific serum IgG by ELISA using the receptor-binding S1 subunits of spike proteins of MERS-CoV. 144 (84,21%) of the total camel sera shown the presence of protein-specific antibodies against MERS-CoV. These results may provide evidence that MERS-CoV has

previously infected dromedary camels in Tabuk and may support the possible role of camels in the human infection.

Publication Type

Journal article.

<646>

Accession Number

20193087360

Author

Al-Omari, A.; Rabaan, A. A.; Samer Salih; Al-Tawfiq, J. A.; Memish, Z. A.

Title

MERS coronavirus outbreak: implications for emerging viral infections.

Source

Diagnostic Microbiology and Infectious Disease; 2019. 93(3):265-285.

Publisher

Elsevier

Location of Publisher

New York

Country of Publication

USA

Abstract

In September 2012, a novel coronavirus was isolated from a patient who died in Saudi Arabia after presenting with acute respiratory distress and acute kidney injury. Analysis revealed the disease to be due to a novel virus which was named Middle East Respiratory Coronavirus (MERS-CoV). There have been several MERS-CoV hospital outbreaks in KSA, continuing to the present day, and the disease has a mortality rate in excess of 35%. Since 2012, the World Health Organization has been informed of 2220 laboratory-confirmed cases resulting in at least 790 deaths. Cases have since arisen in 27 countries, including an outbreak in the Republic of Korea in 2015 in which 36 people died, but more than 80% of cases have occurred in Saudi Arabia.. Human-to-human transmission of MERS-CoV, particularly in

healthcare settings, initially caused a 'media panic', however human-to-human transmission appears to require close contact and thus far the virus has not achieved epidemic potential. Zoonotic transmission is of significant importance and evidence is growing implicating the dromedary camel as the major animal host in spread of disease to humans. MERS-CoV is now included on the WHO list of priority blueprint diseases for which there is an urgent need for accelerated research and development as they have the potential to cause a public health emergency while there is an absence of efficacious drugs and/or vaccines. In this review we highlight epidemiological, clinical, and infection control aspects of MERS-CoV as informed by the Saudi experience. Attention is given to recommended treatments and progress towards vaccine development.

Publication Type

Journal article.

<647>

Accession Number

20193095389

Author

Ma Lei; Zeng FanWen; Cong Feng; Huang BiHong; Huang Ren; Ma JingYun; Guo PengJu

Title

Development of a SYBR green-based real-time RT-PCR assay for rapid detection of the emerging swine acute diarrhea syndrome coronavirus.

Source

Journal of Virological Methods; 2019. 265:66-70. 11 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract



Swine acute diarrhoea syndrome coronavirus (SADS-CoV) is a novel coronavirus which was associated with severe diarrhoea disease in pigs. SADS-CoV was first detected and identified as the causative agent of a devastating swine disease outbreak in southern China in 2017. Routine monitoring and early detection of the source of infection is therefore integral to the prevention and control of SADS-CoV infection. In this study, a SYBR green-based real-time reverse transcription quantitative polymerase chain reaction (RT-qPCR) technique was established for rapid detection and monitoring of this emerging virus. Specific primers were designed based on the conserved region within the M gene of the viral genome. The lowest detection limit of the RT-qPCR assay was 10 copies/ micro L. This assay was specific and had no cross-reaction with other 11 swine viruses. The positive rate of 84 clinical samples for the SYBR green-based RT-qPCR and the conventional RT-PCR was 73.81% (62/84) and 53.57% (45/84), respectively. These results demonstrated that the SYBR green-based RT-qPCR technique was an effectively diagnostic method with higher sensitivity than probe-based RT-qPCR and gel-based RT-PCR for detection and epidemiological investigations of SADS-CoV.

Publication Type

Journal article.

<648>

Accession Number

20183106102

Author

Darling, N. D.; Poss, D. E.; Schoelen, M. P.; Metcalf-Kelly, M.; Hill, S. E.; Harris, S.

Title

Retrospective, epidemiological cluster analysis of the Middle East respiratory syndrome coronavirus (MERS-CoV) epidemic using open source data.

Source

Epidemiology and Infection; 2017. 145(15):3106-3114. 17 ref.

Publisher

Cambridge University Press

Location of Publisher

Cambridge

Country of Publication

UK

Abstract

The Middle East respiratory syndrome coronavirus (MERS-CoV) is caused by a novel coronavirus discovered in 2012. Since then, 1806 cases, including 564 deaths, have been reported by the Kingdom of Saudi Arabia (KSA) and affected countries as of 1 June 2016. Previous literature attributed increases in MERS-CoV transmission to camel breeding season as camels are likely the reservoir for the virus. However, this literature review and subsequent analysis indicate a lack of seasonality. A retrospective, epidemiological cluster analysis was conducted to investigate increases in MERS-CoV transmission and reports of household and nosocomial clusters. Cases were verified and associations between cases were substantiated through an extensive literature review and the Armed Forces Health Surveillance Branch's Tiered Source Classification System. A total of 51 clusters were identified, primarily nosocomial (80.4%) and most occurred in KSA (45.1%). Clusters corresponded temporally with the majority of periods of greatest incidence, suggesting a strong correlation between nosocomial transmission and notable increases in cases.

Publication Type

Journal article.

<649>

Accession Number

20183141659

Author

Zhou Ling; Sun Yuan; Wu JiaoLing; Mai KaiJie; Chen GuiHua; Wu ZiXian; Bai Yang; Li Di; Zhou ZhiHai; Cheng Jian; Wu RuiTing; Zhang XiangBin; Ma JingYun

Title

Development of a TaqMan-based real-time RT-PCR assay for the detection of SADS-CoV associated with severe diarrhea disease in pigs.

Source

Journal of Virological Methods; 2018. 255:66-70. 13 ref.

Publisher

Elsevier B.V.

Location of Publisher

Amsterdam

Country of Publication

Netherlands

Abstract

Swine acute diarrhea syndrome coronavirus (SADS-CoV) is a novel coronavirus which was first reported in southern China in 2017. It can cause severe diarrhea disease in pigs. In order to detect this new emerging virus rapidly and reliably, a TaqMan-based real-time RT-PCR assay was established in this study. Specific primers and probe were designed and synthesized based on the conserved region within the N gene of the viral genome. Results showed that the lowest limit of detection was  $3.0 \times 10^1$  copies/ micro L. This approach was specific for SADS-CoV, and there were no cross-reaction observed against other 15 swine viruses. It was 10 times more sensitive than the conventional PCR and gave higher SADS-CoV positive detection rate (70.69%, 123/174) than the conventional PCR (51.15%, 89/174) from clinical samples. These data indicated that the TaqMan-based real-time RT-PCR assay established here was an effective method with high sensitivity, specificity and reproducibility for faster and more accurate detection and quantification of SADS-CoV.

Publication Type

Journal article.

<650>

Accession Number

20183147080

Author

Valko, A.; Tuboly, T.; Csagola, A.

Title

Enteral coronaviruses of swine. Literature review. [Hungarian]

Source

Magyar Allatorvosok Lapja; 2018. 140(4):207-216. 63 ref.

Publisher

Herman Otto Institute Nonprofit Ltd.

Location of Publisher

Budapest

Country of Publication

Hungary

Abstract

Enteric diseases induced by viruses are highly prevalent and have great economic importance in the swine industry. From the many viruses, which can be found in the background of watery diarrhoea the coronaviruses were chosen to be reviewed in this paper. One of the first enteric diseases of swine discovered was transmissible gastroenteritis (TGE), which became endemic in Europe, as later on its deletion mutant, the porcine respiratory coronavirus (PRCV) spread worldwide. Porcine epidemic diarrhoea (PED), recognized later, is also caused by a coronavirus and it can be only differentiated from TGE by laboratory diagnostic methods, as their clinical and pathological appearance is quite similar. Recently, PED appeared in the previously porcine epidemic diarrhoea virus (PEDV) free North America, and spread rapidly causing great economic losses. These outbreaks attracted the attention to the renewed investigation of PED in European countries as well, which resulted in founding different contemporary viruses in several countries, including Hungary. Several years ago, a novel coronavirus, porcine deltacoronavirus (PDCoV) was discovered in China, then appeared as an enteropathogen in the United States (US), and spread also to other Asian countries, but has not been reported in Europe yet. Based on the currently available field observations from the US and Asia, the clinical disease caused by PDCoV seems to be milder with lower mortality compared to PED. On the other hand, it causes a differential diagnostic challenge, which is made even more difficult by the fact that porcine coronaviruses can occur in the same animal at the same time. At the moment, vaccines are available only for the prevention of TGE and PED, but not for PDCoV, and research is still in progress to make them more effective by reducing virus shedding and inducing proper local immunity on the mucous membrane of the small intestine.

Publication Type

Journal article.

<651>

Accession Number

20183247196

Author

Liu BaoJing; Zuo YuZhu; Luo ShangXing; Shi QianKai; Hou LinShan; Fan JingHui

Title

Isolation and identification of porcine deltacoronavirus HB-BD strain. [Chinese]

Source

Chinese Journal of Virology; 2018. 34(3):372-378. 15 ref.

Publisher

Editorial Office of Chinese Journal of Virology

Location of Publisher

Beijing

Country of Publication

China

Abstract

Porcine deltacoronavirus is a novel coronavirus that causes diarrhea in nursing piglets. Few studies have focused on the isolation of PDCoV in China. To isolate and identify PDCoV from the faecal/intestinal contents of diarrhea piglets, the samples of PDCoV-positive detected by RT-PCR was inoculated to ST cells. Cell cultures were confirmed by the cytopathic effect (CPE), RT-PCR, indirect immunofluorescence assay (IFA) and the sequence analysis of S, M and N gene. The results revealed that HB-BD strain was successfully isolated. Sequencing analyses of S, M and N genes showed that the HB-BD isolate shared high homology with common strains and overseas, with nucleotide homology of 95.8%-99.1%, 98.6%-99.4% and 97.8%-99.4%, respectively. Phylogenetic analysis revealed that they grouped within the same cluster. In conclusion, we have successfully isolated and identified one PDCoV strain from the intestinal contents of diarrhea pigs and laid foundation for further studies on the pathogenicity and biological characteristics of the virus isolate.

Publication Type

Journal article.

<652>

Accession Number

20173086267

Author

Bagaloy, H. K.; Sakhaee, E.; Khalili, M.

Title

Detection of pancoronavirus using PCR in *Camelus dromedarius* in Iran (first report).

Source

Comparative Clinical Pathology; 2017. 26(1):193-196. 32 ref.

Publisher

Springer Science + Business Media

Location of Publisher

London

Country of Publication

UK

Abstract

Coronaviridae is a colossal family of viruses that cause a variety of diseases in humans and other animals. As of late, a novel coronavirus, not anterior-optically discerned in humans, has been identified in a denizen of the Middle East. There is growing evidence that the *Camelus dromedarius* is host species for the virus and plays an important role of a source of human infection. Along these lines, the authors decided to detect coronaviruses in dromedary camels in two high-risk areas of Iran by employing an reverse transcription polymerase chain reaction (RT-PCR) assay. In the present study, nasal swab specimens were collected from 98 camels (*C. dromedarius*) traditionally reared in southeast and northwest of Iran. The detection of pancoronavirus was carried out, using RT-PCR. Pancoronavirus RNA was observed in seven cases among 98 nasal swab samples. Among these, 4 positive samples belonged to Azerbaijan province located in northwest of Iran and 3 positive samples were taken from southeast of Iran. The results of this study contribute to raising the hypothesis to the extent of transmission and risk factors for human infection and public health in Iran.

Publication Type

Journal article.

<653>

Accession Number

20173348116

Author

Lu ManMan; Zhang JiaLin; Wang HongFeng; Shi HongYan; Zhang Xin; Yuan Jing; Shi Da; Liu JianBo; Chen JianFei; Feng Li

Title

Porcine Amino peptidase N (pAPN) is not a cellular receptor for porcine deltacoronavirus entry cell.  
[Chinese]

Source

Zhongguo Yufang Shouyi Xuebao / Chinese Journal of Preventive Veterinary Medicine; 2017.  
39(9):701-706. 17 ref.

Publisher

Chinese Journal of Preventive Veterinary Medicine

Location of Publisher

Harbin

Country of Publication

China

Abstract

Porcine deltacoronavirus (PDCoV) is a novel coronavirus which can cause vomiting and watery diarrhea in pigs. Clinical symptoms of PDCoV infection are similar to those of porcine epidemic diarrhea (PED) and transmissible gastroenteritis (TGE). Previous studies indicate porcine aminopeptidase N(pAPN) is a functional receptor for PEDV and TGEV entry cell. Does pAPN have a similar function to PDCoV invading host cells? In this study, BHK-pAPN cell infection test, silence and overexpression of pAPN in ST cells, soluble pAPN blocking assay were used to confirm whether pAPN was a receptor for PDCoV using TGEV as a positive control. We found BHK-pAPN cells failed to support PDCoV infection, but were susceptible to infection by TGEV. pAPN overexpression and siRNA of pAPN in ST cells affected propagation of TGEV, but not PDCoV. Contrasting to TGEV, PDCoV did not bind soluble pAPN, and infection of ST cells was not inhibited by the soluble form of pAPN. These results indicated that pAPN was not a receptor for PDCoV invading cell and had no affection on propagation of PDCoV in ST cells.

Publication Type

Journal article.

<654>

Accession Number

20163067700

Author

Mackay, I. M.; Arden, K. E.

Title

MERS coronavirus: diagnostics, epidemiology and transmission.

Source

Virology Journal; 2015. 12(222):(22 December 2015). 213 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

The first known cases of Middle East respiratory syndrome (MERS), associated with infection by a novel coronavirus (CoV), occurred in 2012 in Jordan but were reported retrospectively. The case first to be publicly reported was from Jeddah, in the Kingdom of Saudi Arabia (KSA). Since then, MERS-CoV sequences have been found in a bat and in many dromedary camels (DC). MERS-CoV is enzootic in DC across the Arabian Peninsula and in parts of Africa, causing mild upper respiratory tract illness in its camel reservoir and sporadic, but relatively rare human infections. Precisely how virus transmits to humans remains unknown but close and lengthy exposure appears to be a requirement. The KSA is the focal point of MERS, with the majority of human cases. In humans, MERS is mostly known as a lower respiratory tract (LRT) disease involving fever, cough, breathing difficulties and pneumonia that may progress to acute respiratory distress syndrome, multiorgan failure and death in 20% to 40% of those infected. However, MERS-CoV has also been detected in mild and influenza-like illnesses and in those with no signs or symptoms. Older males most obviously suffer severe disease and MERS patients often have comorbidities. Compared to severe acute respiratory syndrome (SARS), another sometimes - fatal zoonotic coronavirus disease that has since disappeared, MERS progresses more rapidly to respiratory failure and acute kidney injury (it also has an affinity for growth in kidney cells under laboratory conditions), is more frequently reported in patients with underlying disease and is more often fatal. Most



human cases of MERS have been linked to lapses in infection prevention and control (IPC) in healthcare settings, with approximately 20% of all virus detections reported among healthcare workers (HCWs) and higher exposures in those with occupations that bring them into close contact with camels. Sero-surveys have found widespread evidence of past infection in adult camels and limited past exposure among humans. Sensitive, validated reverse transcriptase real-time polymerase chain reaction (RT-rtPCR)-based diagnostics have been available almost from the start of the emergence of MERS. While the basic virology of MERS-CoV has advanced over the past three years, understanding of the interplay between camel, environment, and human remains limited.

Publication Type

Journal article.

<655>

Accession Number

20163085585

Author

Snigdha Pattnaik

Title

Infection control support training, in a hospital of KSA for containment of Middle East respiratory virus syndrome coronavirus (MERS-CoV).

Source

International Journal of Medical Science and Public Health; 2016. 5(2):361-363. 5 ref.

Publisher

International Journal of Medical Science and Public Health

Location of Publisher

Surat

Country of Publication

India

Abstract

In September 2012, the World Health Organization announced the discovery of a novel coronavirus. This virus has been named the Middle East respiratory syndrome coronavirus (MERS-CoV). MERS-CoV has been identified in several countries in the Arabian Peninsula. This was a very crucial activity at the time when the kingdom is trying to combat the MERS-CoV. The main objective of our weeklong activity was to provide educational and technical assistance based on the organization's specific needs. The doctors, nurses, and paramedics from various departments of the hospital were trained, and their knowledge on universal precaution methods in health-care setup was reinforced. The results of the weeklong infection control support training is as follows: doctors, 29%; nurses, 83%; and housekeeping staff, 33%, were trained.

Publication Type

Journal article.

<656>

Accession Number

20163220558

Author

Mohd, H. A.; Al-Tawfiq, J. A.; Memish, Z. A.

Title

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) origin and animal reservoir.

Source

Virology Journal; 2016. 13(87):(3 June 2016). 40 ref.

Publisher

BioMed Central Ltd

Location of Publisher

London

Country of Publication

UK

Abstract

Middle East Respiratory Syndrome-Coronavirus (MERS-CoV) is a novel coronavirus discovered in 2012 and is responsible for acute respiratory syndrome in humans. Though not confirmed yet, multiple surveillance and phylogenetic studies suggest a bat origin. The disease is heavily endemic in dromedary camel populations of East Africa and the Middle East. It is unclear as to when the virus was introduced to dromedary camels, but data from studies that investigated stored dromedary camel sera and geographical distribution of involved dromedary camel populations suggested that the virus was present in dromedary camels several decades ago. Though bats and alpacas can serve as potential reservoirs for MERS-CoV, dromedary camels seem to be the only animal host responsible for the spill over human infections.

Publication Type

Journal article.

<657>

Accession Number

20163344210

Author

Huang CanPing; Liu, W. J.; Xu Wen; Jin Tao; Zhao YingZe; Song JingDong; Shi Yi; Ji Wei; Jia Hao; Zhou YongMing; Wen HongHua; Zhao HongLan; Liu HuaXing; Li Hong; Wang QiHui; Wu Ying; Wang Liang; Liu Di; Liu Guang; Yu HongJie; Holmes, E. C.; Lu Lin; Gao, G. F.

Title

A bat-derived putative cross-family recombinant coronavirus with a reovirus gene.

Source

PLoS Pathogens; 2016. 12(9):e1005883. 60 ref.

Publisher

Public Library of Sciences (PLoS)

Location of Publisher

San Francisco

Country of Publication

USA

## Abstract

The emergence of severe acute respiratory syndrome coronavirus (SARS-CoV) in 2002 and Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012 has generated enormous interest in the biodiversity, genomics and cross-species transmission potential of coronaviruses, especially those from bats, the second most speciose order of mammals. Herein, we identified a novel coronavirus, provisionally designated Rousettus bat coronavirus GCCDC1 (Ro-BatCoV GCCDC1), in the rectal swab samples of Rousettus leschenaulti bats by using pan-coronavirus RT-PCR and next-generation sequencing. Although the virus is similar to Rousettus bat coronavirus HKU9 (Ro-BatCoV HKU9) in genome characteristics, it is sufficiently distinct to be classified as a new species according to the criteria defined by the International Committee of Taxonomy of Viruses (ICTV). More striking was that Ro-BatCoV GCCDC1 contained a unique gene integrated into the 3'-end of the genome that has no homologs in any known coronavirus, but which sequence and phylogeny analyses indicated most likely originated from the p10 gene of a bat orthoreovirus. Subgenomic mRNA and cellular-level observations demonstrated that the p10 gene is functional and induces the formation of cell syncytia. Therefore, here we report a putative heterologous inter-family recombination event between a single-stranded, positive-sense RNA virus and a double-stranded segmented RNA virus, providing insights into the fundamental mechanisms of viral evolution.

## Publication Type

Journal article.

<658>

## Accession Number

20153039902

## Author

Pavli, A.; Tsiodras, S.; Maltezou, H. C.

## Title

Middle East respiratory syndrome coronavirus (MERS-CoV): prevention in travelers. (Special Issue: Zoonoses and travel medicine.)

## Source

Travel Medicine and Infectious Disease; 2014. 12(6, Part A):602-608. 38 ref.

## Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Middle East respiratory syndrome coronavirus (MERS-CoV), a novel coronavirus that causes a severe lower respiratory tract infection in humans, emerged in the Middle East in 2012. Since then, MERS-CoV has caused an ongoing epidemic in the Arabian Peninsula with sporadic cases imported in Europe, North Africa, Southeast Asia, and the United States of America. As of 28th May 2014, 636 laboratory-confirmed cases of infection with MERS-CoV have been reported to World Health Organization including 14 cases imported by travelers. The epicenter of the current MERS-CoV epidemic is located in Saudi Arabia, where millions of pilgrims travel for two mass gatherings annually. In this review we summarize MERS-CoV cases in relation to travel with focus on the epidemiology and prevention in travelers. It is important to increase awareness of travelers about the risks and appropriate preventive measures and for health professionals to be on alert if a patient with severe respiratory symptoms reports a recent history of travel to the region affected with MERS-CoV. Measures should be taken by local health authorities of the affected countries in order to improve hospital hygiene. Finally, it is crucial to investigate the reasons for travelers' poor compliance with rules and recommendations issued by Saudi officials and to take appropriate measures in order to improve them.

Publication Type

Journal article.

<659>

Accession Number

20153098785

Author

Lau, S. K. P.; Woo, P. C. Y.; Li, K. S. M.; Tsang, A. K. L.; Fan, R. Y. Y.; Luk, H. K. H.; Cai, J. P.; Chan, K. H.; Zheng, B. J.; Wang, M.; Yuen, K. Y.

Title

Discovery of a novel coronavirus, China Rattus coronavirus HKU24, from Norway rats supports the murine origin of Betacoronavirus 1 and has implications for the ancestor of Betacoronavirus lineage a.

Source

Journal of Virology; 2015. 89(6):3076-3092. 87 ref.

Publisher

American Society for Microbiology (ASM)

Location of Publisher

Washington

Country of Publication

USA

Abstract

We discovered a novel Betacoronavirus lineage A coronavirus, China Rattus coronavirus (ChRCoV) HKU24, from Norway rats in China. ChRCoV HKU24 occupied a deep branch at the root of members of Betacoronavirus 1, being distinct from murine coronavirus and human coronavirus HKU1. Its unique putative cleavage sites between nonstructural proteins 1 and 2 and in the spike (S) protein and low sequence identities to other lineage A betacoronaviruses (beta CoVs) in conserved replicase domains support ChRCoV HKU24 as a separate species. ChRCoV HKU24 possessed genome features that resemble those of both Betacoronavirus 1 and murine coronavirus, being closer to Betacoronavirus 1 in most predicted proteins but closer to murine coronavirus by G+C content, the presence of a single nonstructural protein (NS4), and an absent transcription regulatory sequence for the envelope (E) protein. Its N-terminal domain (NTD) demonstrated higher sequence identity to the bovine coronavirus (BCoV) NTD than to the mouse hepatitis virus (MHV) NTD, with 3 of 4 critical sugar-binding residues in BCoV and 2 of 14 contact residues at the MHV NTD/murine CEACAM1a interface being conserved. Molecular clock analysis dated the time of the most recent common ancestor of ChRCoV HKU24, Betacoronavirus 1, and rabbit coronavirus HKU14 to about the year 1400. Cross-reactivities between other lineage A and B beta CoVs and ChRCoV HKU24 nucleocapsid but not spike polypeptide were demonstrated. Using the spike polypeptide-based Western blot assay, we showed that only Norway rats and two oriental house rats from Guangzhou, China, were infected by ChRCoV HKU24. Other rats, including Norway rats from Hong Kong, possessed antibodies only against N protein and not against the spike polypeptide, suggesting infection by beta CoVs different from ChRCoV HKU24. ChRCoV HKU24 may represent the murine origin of Betacoronavirus 1, and rodents are likely an important reservoir for ancestors of lineage A beta CoVs.

Publication Type

Journal article.

<660>

Accession Number

20153109341

Author

Foley, N. M.; Vu Dinh Thong; Soisook, P.; Goodman, S. M.; Armstrong, K. N.; Jacobs, D. S.; Puechmaille, S. J.; Teeling, E. C.

Title

How and why overcome the impediments to resolution: lessons from rhinolophid and hipposiderid bats.

Source

Molecular Biology and Evolution; 2015. 32(2):313-333. many ref.

Publisher

Oxford University Press

Location of Publisher

Oxford

Country of Publication

UK

Abstract

The phylogenetic and taxonomic relationships among the Old World leaf-nosed bats (Hipposideridae) and the closely related horseshoe bats (Rhinolophidae) remain unresolved. In this study, we generated a novel approximately 10-kb molecular data set of 19 nuclear exon and intron gene fragments for 40 bat species to elucidate the phylogenetic relationships within the families Rhinolophidae and Hipposideridae. We estimated divergence times and explored potential reasons for any incongruent phylogenetic signal. We demonstrated the effects of outlier taxa and genes on phylogenetic reconstructions and compared the relative performance of intron and exon data to resolve phylogenetic relationships. Phylogenetic analyses produced a well-resolved phylogeny, supporting the familial status of Hipposideridae and demonstrated the paraphyly of the largest genus, *Hipposideros*. A fossil-calibrated timetree and biogeographical analyses estimated that Rhinolophidae and Hipposideridae diverged in Africa during the Eocene approximately 42 Ma. The phylogram, the timetree, and a unique retrotransposon insertion supported the elevation of the subtribe *Rhinonycterina* to family level and which is diagnosed herein. Comparative analysis of diversification rates showed that the speciose genera *Rhinolophus* and *Hipposideros* underwent diversification during the Mid-Miocene Climatic Optimum. The intron versus exon analyses demonstrated the improved nodal support provided by introns for our optimal tree, an important finding for large-scale phylogenomic studies, which typically rely on exon data alone. With the recent outbreak of Middle East respiratory syndrome, caused by a

novel coronavirus, the study of these species is urgent as they are considered the natural reservoir for emergent severe acute respiratory syndrome (SARS)-like coronaviruses. It has been shown that host phylogeny is the primary factor that determines a virus's persistence, replicative ability, and can act as a predictor of new emerging disease. Therefore, this newly resolved phylogeny can be used to direct future assessments of viral diversity and to elucidate the origin and development of SARS-like coronaviruses in mammals.

Publication Type

Journal article.

<661>

Accession Number

20153157337

Author

Hu, H.; Jung, K. I.; Vlasova, A. N.; Chepngeno, J.; Lu, Z. Y.; Wang, Q. H.; Saif, L. J.

Title

Isolation and characterization of porcine deltacoronavirus from pigs with diarrhea in the United States.

Source

Journal of Clinical Microbiology; 2015. 53(5):1537-1548. 31 ref.

Publisher

American Society for Microbiology (ASM)

Location of Publisher

Washington

Country of Publication

USA

Abstract

Porcine deltacoronavirus (PDCoV) is a novel coronavirus that causes diarrhea in nursing piglets. Following its first detection in the United States in February 2014, additional PDCoV strains have been identified in the United States and Canada. Currently, no treatments or vaccines for PDCoV are available. In this study, U.S. PDCoV strain OH-FD22 from intestinal contents of a diarrheic pig from Ohio



was isolated in swine testicular (ST) and LLC porcine kidney (LLC-PK) cell cultures by using various medium additives. We also isolated PDCoV [OH-FD22(DC44) strain] in LLC-PK cells from intestinal contents of PDCoV OH-FD22 strain-inoculated gnotobiotic (Gn) pigs. Cell culture isolation and propagation were optimized, and the isolates were serially propagated in cell culture for >20 passages. The full-length S and N genes were sequenced to study PDCoV genetic changes after passage in Gn pigs and cell culture (passage 11 [P11] and P20). Genetically, the S and N genes of the PDCoV isolates were relatively stable during the first 20 passages in cell culture, with only 5 nucleotide changes, each corresponding to an amino acid change. The S and N genes of our sequenced strains were genetically closely related to each other and to other U.S. PDCoV strains, with the highest sequence similarity to South Korean strain KNU14-04. This is the first report describing cell culture isolation, serial propagation, and biological and genetic characterization of cell-adapted PDCoV strains. The information presented in this study is important for the development of diagnostic reagents, assays, and potential vaccines against emergent PDCoV strains.

Publication Type

Journal article.

<662>

Accession Number

20143061407

Author

Drexler, J. F.; Corman, V. M.; Drosten, C.

Title

Ecology, evolution and classification of bat coronaviruses in the aftermath of SARS.

Source

Antiviral Research; 2014. 101:45-56. many ref.

Publisher

Elsevier

Location of Publisher

Amsterdam

Country of Publication

Abstract

In 2002/2003, a novel coronavirus (CoV) caused a pandemic, infecting more than 8000 people, of whom nearly 10% died. This virus, termed severe acute respiratory syndrome-CoV was linked to a zoonotic origin from rhinolophid bats in 2005. Since then, numerous studies have described novel bat CoVs, including close relatives of the newly emerging Middle East respiratory syndrome (MERS)-CoV. In this paper we discuss CoV genomic properties and compare different taxonomic approaches in light of the technical difficulties of obtaining full genomic sequences directly from bat specimens. We first present an overview of the available studies on bat CoVs, with details on their chiropteran hosts, then comparatively analyze the increase in bat CoV studies and novel genomic sequences obtained since the SARS pandemic. We then conduct a comprehensive phylogenetic analysis of the genera Alpha- and Betacoronavirus, to show that bats harbour more CoV diversity than other mammalian hosts and are widely represented in most, but not all parts of the tree of mammalian CoVs. We next discuss preliminary evidence for phylogenetic co-segregation of CoVs and bat hosts encompassing the Betacoronavirus clades b and d, with an emphasis on the sampling bias that exists among bat species and other mammals, then present examples of CoVs infecting different hosts on the one hand and viruses apparently confined to host genera on the other. We also demonstrate a geographic bias within available studies on bat CoVs, and identify a critical lack of information from biodiversity hotspots in Africa, Asia and Latin America. We then present evidence for a zoonotic origin of four of the six known human CoVs (HCoV), three of which likely involved bats, namely SARS-CoV, MERS-CoV and HCoV-229E; compare the available data on CoV pathogenesis in bats to that in other mammalian hosts; and discuss hypotheses on the putative insect origins of CoV ancestors. Finally, we suggest caution with conclusions on the zoonotic potential of bat viruses, based only on genomic sequence data, and emphasize the need to preserve these ecologically highly relevant animals. This paper forms part of a symposium in Antiviral Research on "from SARS to MERS: 10 years of research on highly pathogenic human coronaviruses".

Publication Type

Journal article.

<663>

Accession Number

20143127979

Title

Annual Report of the Chief Medical Officer, Surveillance Volume, 2012: On the state of the public's health.

Source

Annual Report of the Chief Medical Officer, Surveillance Volume, 2012: On the state of the public's health; 2012. :126 pp. many ref.

Publisher

Department of Health

Location of Publisher

London

Country of Publication

UK

Abstract

This surveillance report for 2012 of the Chief Medical Officer of England focuses on six areas of public health which were highlighted in the previous annual report. Each chapter opens with data presented in an ergonomic 'infographic' form. Chapter 1 presents the Chief Medical Officer's summary of the report. The next 6 chapters present data on the following areas: health and employment; health and justice (health of the prison population); sensory impairment; diet, physical activity and obesity; cancer trends (for all cancer, smoking-related cancer, melanoma, HPV-related cancer and liver cancer); and liver disease (including alcohol-related liver disease, liver cancer, hepatitis B and hepatitis C). The final chapter, public health miscellany 2012, features a collection of interesting discussion topics and examples of excellent public health practice which have occurred during 2012. These include active travel (walking and cycling); an outbreak of gastrointestinal illness associated with the Street spice food festival; a study of folic acid supplementation before pregnancy; novel coronavirus infection; horse meat safety; the London 2012 Olympic and Paralympic games and public health; poly implant prostheses breast implants; and the Global Burden of Disease Study 2010.

Publication Type

Annual report.

<664>

Accession Number

20143371391

Author

Al-Tawfiq, J. A.; Zumla, A.; Gautret, P.; Gray, G. C.; Hui, D. S.; Al-Rabeeh, A. A.; Memish, Z. A.

Title

Emerging respiratory tract infections 1: surveillance for emerging respiratory viruses.

Source

Lancet Infectious Diseases; 2014. 14(10):992-1000. 124 ref.

Publisher

Elsevier Ltd

Location of Publisher

Oxford

Country of Publication

UK

Abstract

Several new viral respiratory tract infectious diseases with epidemic potential that threaten global health security have emerged in the past 15 years. In 2003, WHO issued a worldwide alert for an unknown emerging illness, later named severe acute respiratory syndrome (SARS). The disease caused by a novel coronavirus (SARS-CoV) rapidly spread worldwide, causing more than 8000 cases and 800 deaths in more than 30 countries with a substantial economic impact. Since then, we have witnessed the emergence of several other viral respiratory pathogens including influenza viruses (avian influenza H5N1, H7N9, and H10N8; variant influenza A H3N2 virus), human adenovirus-14, and Middle East respiratory syndrome coronavirus (MERS-CoV). In response, various surveillance systems have been developed to monitor the emergence of respiratory-tract infections. These include systems based on identification of syndromes, web-based systems, systems that gather health data from health facilities (such as emergency departments and family doctors), and systems that rely on self-reporting by patients. More effective national, regional, and international surveillance systems are required to enable rapid identification of emerging respiratory epidemics, diseases with epidemic potential, their specific microbial cause, origin, mode of acquisition, and transmission dynamics.

Publication Type

Journal article.

<665>

Accession Number

20143416092

Author

Adney, D. R.; Doremalen, N. van; Brown, V. R.; Bushmaker, T.; Scott, D.; Wit, E. de; Bowen, R. A.; Munster, V. J.

Title

Replication and shedding of MERS-CoV in upper respiratory tract of inoculated dromedary camels.

Source

Emerging Infectious Diseases; 2014. 20(12):1999-2005. 29 ref.

Publisher

National Center for Infectious Diseases, Centers for Disease Control and Prevention

Location of Publisher

Atlanta

Country of Publication

USA

Abstract

In 2012, a novel coronavirus associated with severe respiratory disease in humans emerged in the Middle East. Epidemiologic investigations identified dromedary camels as the likely source of zoonotic transmission of Middle East respiratory syndrome coronavirus (MERS-CoV). Here we provide experimental support for camels as a reservoir for MERS-CoV. We inoculated 3 adult camels with a human isolate of MERS-CoV and a transient, primarily upper respiratory tract infection developed in each of the 3 animals. Clinical signs of the MERS-CoV infection were benign, but each of the camels shed large quantities of virus from the upper respiratory tract. We detected infectious virus in nasal secretions through 7 days postinoculation, and viral RNA up to 35 days postinoculation. The pattern of shedding and propensity for the upper respiratory tract infection in dromedary camels may help explain the lack of systemic illness among naturally infected camels and the means of efficient camel-to-camel and camel-to-human transmission.

Publication Type

Journal article.

<666>

Accession Number

20133035484

Author

Crossley, B. M.; Mock, R. E.; Callison, S. A.; Hietala, S. K.

Title

Identification and characterization of a novel alpaca respiratory coronavirus most closely related to the human coronavirus 229E.

Source

Viruses; 2012. 4(12):3689-3700. 39 ref.

Publisher

MDPI Publishing

Location of Publisher

Basel

Country of Publication

Switzerland

Abstract

In 2007, a novel coronavirus associated with an acute respiratory disease in alpacas (Alpaca Coronavirus, ACoV) was isolated. Full-length genomic sequencing of the ACoV demonstrated the genome to be consistent with other Alphacoronaviruses. A putative additional open-reading frame was identified between the nucleocapsid gene and 3'UTR. The ACoV was genetically most similar to the common human coronavirus (HCoV) 229E with 92.2% nucleotide identity over the entire genome. A comparison of spike gene sequences from ACoV and from HCoV-229E isolates recovered over a span of five decades showed the ACoV to be most similar to viruses isolated in the 1960's to early 1980's. The true origin of the ACoV is unknown, however a common ancestor between the ACoV and HCoV-229E appears to have existed prior to the 1960's, suggesting virus transmission, either as a zoonosis or anthroponosis, has occurred between alpacas and humans.

Publication Type

Journal article.

<667>

Accession Number

20133201885

Author

Hijawi, B.; Abdallat, M.; Sayaydeh, A.; Alqasrawi, S.; Haddadin, A.; Jaarour, N.; Alsheikh, S.; Alsanouri, T.

Title

Novel coronavirus infections in Jordan, April 2012: epidemiological findings from a retrospective investigation. (Special Issue: Coronavirus.)

Source

Eastern Mediterranean Health Journal; 2013. 19(Suppl. 1):S12-S18. 9 ref.

Publisher

World Health Organization, Regional Office for the Eastern Mediterranean

Location of Publisher

Cairo

Country of Publication

Egypt

Abstract

In April 2012, an outbreak of acute respiratory illness occurred in a public hospital in Zarqa city, in Jordan; 8 health care workers were among the 11 people affected, 1 of who later died. The cause of the outbreak was unknown at the time and an epidemiological investigation including laboratory testing carried out immediately after the outbreak was inconclusive. Following the discovery of novel coronavirus infection (nCoV) in the Arabian peninsula in September 2012, stored respiratory and serum samples of patients from this outbreak were retested and the diagnosis of nCoV was confirmed in 2 deceased patients. This paper describes the epidemiological findings of retrospective investigation carried out in November 2012 and highlights the likelihood of nosocomial transmission of nCoV infection in a health-care setting. A total of 2 laboratory-confirmed and 11 probable cases were identified from this outbreak of whom 10 were HCWs and 2 were family members of cases.

Publication Type

Journal article.

<668>

Accession Number

20133201652

Author

Memish, Z. A.; Alhakeem, R.; Stephens, G. M.

Title

Saudi Arabia and the emergence of a novel coronavirus. (Special Issue: Coronavirus.)

Source

Eastern Mediterranean Health Journal; 2013. 19(Suppl. 1):S7-S11. 10 ref.

Publisher

World Health Organization, Regional Office for the Eastern Mediterranean

Location of Publisher

Cairo

Country of Publication

Egypt

Abstract

The novel coronavirus disease outbreak in Saudi Arabia in 2012 predominately affected males and those living in urban areas. Since September and October 2012, when the first 2 cases were published, a total of 15 confirmed cases have been reported. All but 2 have been linked to countries of the Arabian peninsula; Saudi Arabian nationals accounted for a majority, 8 in all, and only 1 case was female. Seven patients had severe pneumonia; 2 survived - 1 with mild disease and 1 with significant underlying illness. Although transmission of the virus to health-care workers was suspected in Jordan's April 2012 outbreak, similar clusters have not been found in Saudi Arabia's hospitals, nor have additional cases been identified through retrospective tracing of exposed health-care workers. Two family clusters have been identified, 1 in Riyadh and 1 in Manchester, England. A second Riyadh family cluster is being investigated.

Publication Type

Journal article.



<669>

Accession Number

20123351506

Author

Al-Tawfiq, J. A.; Memish, Z. A.

Title

The Hajj: updated health hazards and current recommendations for 2012.

Source

Eurosurveillance; 2012. 17(41):20295. 25 ref.

Publisher

European Centre for Disease Prevention and Control

Location of Publisher

Stockholm

Country of Publication

Sweden

Abstract

This year the Hajj will take place during 24-29 October. Recent outbreaks of Ebola haemorrhagic fever in Uganda and the Democratic Republic of the Congo, cholera in Sierra Leone, and infections associated with a novel coronavirus in Saudi Arabia and Qatar required review of the health recommendations of the 2012 Hajj. Current guidelines foresee mandatory vaccination with quadrivalent meningococcal vaccine for all pilgrims, and yellow fever and poliomyelitis vaccine for pilgrims from high-risk countries. Influenza vaccine is strongly recommended.

Publication Type

Journal article.

<670>

Accession Number

20113169367

Author

Murray, J.; Kiupel, M.; Maes, R. K.

Title

Ferret coronavirus-associated diseases. (Special Issue: Advances and updates in internal medicine.)

Source

Veterinary Clinics of North America: Exotic Animal Practice; 2010. 13(3):543-560.

Publisher

Elsevier, Inc.,

Location of Publisher

New York

Country of Publication

USA

Abstract

A novel coronavirus of ferrets was first described in 1993. This coronavirus caused an enteric disease called epizootic catarrhal enteritis (ECE). Recently, a ferret systemic coronavirus (FRSCV)-associated disease was discovered. This new systemic disease resembles the dry form of feline infectious peritonitis (FIP) and has been reported in the United States and Europe. This article addresses the clinical signs, pathology, pathogenesis, diagnosis, treatment, and prevention of this ferret FIP-like disease.

Publication Type

Journal article.

<671>

Accession Number

20103076450

Author

Crossley, B. M.; Barr, B. C.; Magdesian, K. G.; Ing, M.; Mora, D.; Jensen, D.; Loretto, A. P.; McConnell, T.; Mock, R.

Title

Identification of a novel coronavirus possibly associated with acute respiratory syndrome in alpacas (*Vicugna pacos*) in California, 2007.

Source

Journal of Veterinary Diagnostic Investigation; 2010. 22(1):94-97. 10 ref.

Publisher

American Association of Veterinary Laboratory Diagnosticians

Location of Publisher

Davis

Country of Publication

USA

Abstract

Alpaca respiratory syndrome (ARS) was first recognized in California in October 2007. This syndrome is characterized by acute respiratory signs, high fever, and occasional sudden death, and has mostly been observed in pregnant alpacas (*Vicugna pacos*), although all signalments have been affected. A similarity in clinical signs to cases located on the East Coast of the United States was observed; however, a causative agent had not been identified. Preliminary diagnostic submissions to the California Animal Health and Food Safety Laboratory System (CAHFS) were negative for known bacterial, parasitic, fungal, and viral pathogens, as well as for toxins, making the etiology of this disease unknown. However, based on pathologic findings, a viral or toxic etiology was strongly considered. A novel coronavirus was recovered from lung tissue of a clinical case submitted to CAHFS. The coronavirus identity was confirmed in tissue culture by transmission electron microscopy and by sequence analysis of a conserved region within the viral genome. Statistical analysis calculating a serologic association between the serum virus neutralization antibody titer and coronavirus, the presence of exposure history on 40 animals with a history of ARS, and 167 controls provided an odds ratio of 121 (95% confidence interval: 36.54 and 402.84;  $P < 0.0001$ ). The findings indicate that the ARS-associated coronavirus described is distinct from the previously reported gastrointestinal-associated coronavirus identified in alpaca herds.

Publication Type

Journal article.

