Infection prevention and control policies and procedures in routine practice

Webinar transcript

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Pam Mosedale: Welcome everyone to this webinar brought to you by RCVS Knowledge. This is part of a series of webinars on infection control and this is number three in the series on infection prevention and control policies and procedures in routine practice. There should be a really practical webinar which I'm really looking forward to and we've got Liz Branscombe to talk to us on this subject. [New slide] RCVS Knowledge is there to advance the quality of veterinary care for the benefit of animals, society, the public. The way that RCVS Knowledge meets this mission is by championing the use of evidence-based approach, inspiring a culture of continuous quality improvement in practice and having some great resources available both on evidence-based medicine and some fantastic quality improvement resources there on our website available to the profession and the wider public. We are a separate organization to the RCVS.

[New Slide] So as I said, this is part of a series of webinars. Number one, it was about COVID and I think that we had lots of people watch that and I hope if you haven't seen it, you will watch it. And obviously COVID is very important in infection control and it's not going to go away for quite a long time. So that's still very relevant. And infection control is an ongoing issue for all of us in practice. In part two, Tim Nuttall from Edinburgh who, Tim Nuttall did the first COVID webinar along with Alan Radford from Liverpool. In part two, Tim Nuttall talks about organisms of concern and modes of transmission, which gives us the evidence base for how we need to clean things. And now again to move on to part three, which is going to talk about the practicalities of actually doing this and implementing it in your practice.

[New Slide] So as I said before, we're very lucky to have Liz Branscombe, Liz qualified as a veterinary nurse in 1986, she worked in small animal and mixed practice and then referral practice, and then was at the RVC, a senior surgery nurse between '93 and '97. Liz has been employed at Davies Veterinary Specialists since it started in 1998, undertaking a variety of clinical nursing roles and is currently the Training Manager with responsibility for development of induction training programs for new employees and in-house and external training for team members. Liz was a member of RCVS VN council and the chairman during the time when significant milestones for the nursing profession were achieved culminating in statutory regulation. So we're very lucky to have Liz so over to you now, Liz.

Liz Branscombe: [New Slide] Thank you Pam. We're going to start with quick overview for what the session will cover today. We'll start by looking at creating an infection control group within practice and then move on to what you might consider if developing biosecurity policy. Biosecurity measures are

those that minimize the risk of infection transmission. So there'll be information within that policy that helps people understand the concept of biosecurity. Then we will talk about the role of the infection prevention and control nurse. We say nurse, but this could also be any other nominated lead person within the practice. And then we will look at considerations for infection control in the practice and in different areas of the practice. It's a massive topic, but I hope to flag up a few sort of key considerations that you might think about when you're creating your infection prevention and control policies.

[New Slide] So considerations for creating an infection control group within your practice. So representatives from all of the practice teams should be involved within the group. And depending on the size, obviously of the practice, there may be quite a few members within the group, but it is important to have information and representation from all departments. And initially it would be sensible to ask for volunteers. It is much easier if you have people who are willing and interested and are therefore able to help motivate other members of the team.

You need to think about the goals that the group might want. And these may vary depending on the type of practice. And as you said before, the size of the practice. But as a starting point there are some ideas here for goals that you could use. And the goals need to be realistic and work for you within your own practice. So initially think about protecting staff and clients from zoonotic disease. You would aim to create an optimum environment for patient care where risk of nosocomial infection is minimized. Demonstrate appropriate infection control and disease surveillance practices. So you might need to think about what they might be and what would work for you within your environment. And the other goal of the group would be to provide advice to staff and clients regarding the control and prevention of infectious disease and that would include routine protocols but also being available to advise in circumstances where there might be disease outbreak or changes such as we've had recently with the COVID-19 pandemic.

[New Slide] The remit of your infection control group. Again, you might think this is obvious, but you would have to adapt this to suit yourselves. When developing policies and procedures for biosecurity, you need to think about what is best practice and gold standard. However they need to be cost efficient and achievable too. You don't want to set unreasonable standards or actions within the procedures and protocols that you develop. And then once you've have the protocols in place, they need to be managed, the implementation of the protocols needs to be managed. And ensure that there is compliance and adherence to best practice where you can. And another thing to consider is the group should offer advice or be consulted if there are changes to workflow within the practice due to practice expansion or changes of routine, because that could save time and money in the future. The group will need to report on activities, on infection control and share information with the rest of the practice. And that might be done in newsletters or regular training or updates with team meetings. And, you'll also need to consider developing staff expertise and educating according to the team members role, to give them an insight to the biosecurity, the concept of biosecurity and also some information about roots of disease transmission.

If you have members of the team, they might not be members of your infection control group. But if there are people who can also be highlighted as champions for infection control, this is a very useful way of motivating and encouraging everybody to take responsibility. The policy will include, as we've said, measures specific to the practice that will minimize the risk of transmission of infectious disease and

reduce the incidence of hospital associated infections. And the previous webinar that discusses routes of transmission will give more information about this subject. But you have to consider animal to animal, human to human and animal to human methods of transmission and limit those diseases.

[New slide] So what to include in the policy. And again the group, the infection control group will need to discuss what they feel would be best to include in the policy, but it's worth perhaps listing in the policy what the goals and the remit of the infection control group are, so that that is shared with practice members as well. And then maybe spending some time giving information about the principles of infection control and how these would then guide the development of your policies. So there are key principles of infection control are listed here. And obviously one of the main principles is to optimize hygiene. And using standard precautions such as hand hygiene, which we'll discuss it a little bit further on in the presentation. Use of PPE at the right level. And then also cleaning and disinfection protocols and procedures. And secondly, the principle of infection control is how we break transmission. And therefore we have to understand the routes of transmission. And these could be such as aerosol or indirect or direct contact. And then obviously a large area is the fomite transmission route.

And then we need to think about targeting and refining infection control procedure through surveillance. And so you would need to include in your policy how you might go about doing that within your practice. And lastly, enhance education and awareness. So we need to make sure that every member in the team from induction level going through to sort of annual reviews, have continual information about the risks associated with infection and communicate the purpose of our protocols.

[New slide] Next, consider the role of the infection prevention and control nurse. We say nurse, this could be any other lead person, but preferably somebody who has a good understanding of infection control and the concepts that we want to share with other practice members. And the role should be embedded in the organizational structure. The person who takes on this role should be supported at a management level and they should feel empowered to carry out the role. And that will then encourage others to go forward and take on the ideas that the infection control group wish to share.

So this person would formalize an approach to infection control. Looking at evidence based protocols. They are, part of the role would involve perhaps surveying perceptions within the practice to infection control and as we said, reviewing procedures and updating as necessary. And part of that will also include surveillance and audit. And there are lots of things that fall into this category that might need to be considered. And actually the role is, you can make it as big as you wish really. But there are a lot of key things that need to be considered. Surveillance such like environmental monitoring and perhaps bacterial culture and looking antibiotics surveillance and then also adherence to protocols such as hand hygiene. And developing audits for different processes within the practice.

And then also a key part of the role would be education and training. And so this person would be involved in developing material for new starters at the practice and also members at different levels and within different roles so the clinical versus nonclinical roles. And they might develop specific training sessions just for hand hygiene or discussions around antibiotic resistance awareness and so on. And then as we have said before, they might need to adapt and revise protocols in light of something happening on a day to day basis within the practice. And it might be something like a global pandemic or

it might be something that actually is more local. So it could be something, for example, like a cat starts sneezing within a cat ward or a dog starts coughing in a ward. And how are you going to manage those situations with regard to protecting other patients?

[New slide] So I think as we said, optimizing hygiene is a key principle of infection control and hand hygiene is acknowledged to be the single most important factor in minimizing the transmission of contagious organisms. And you could, I could probably spend a whole hour talking about hand hygiene and protocols associated with that. And I'm going to flag a few key points that you might include if you're developing your own hand hygiene protocol. There's a lot of information and up-to-date evidence. If you have a look at the World Health Organization website, there are resources there as well that you can use within your practice.

Every team member should be aware of when hands should be cleaned. And on our next slide we'll talk about the five moments of hand hygiene. And they should adhere to a standard protocol. The protocol should be displayed and available for everybody and it should be commonplace. One of the key elements, and I think adopted in quite a lot of veterinary practices now, would be the bare arm below the elbow policy. And the reason for doing this is that it allows easier decontamination of forearms and hand-washing. And also removes the risk of transmission of infection from clothing when you're holding or restraining patients. So anyone in a clinical setting should be adopting this policy in my opinion. We would also consider notes in the policy about keeping nails short, not using nail varnish and false nails. I think it's probably something that veterinary professionals are aware of already.

And another thing to include would be covering any cuts or abrasions to the skin to keep those covered. And keep hands well moisturized as well after washing your hands. And then at this point we would just mention hand rub procedure or hand wash procedure, which would be the method of choice. Well the World Health Organization advise that generally speaking, hand rub with an alcohol-based preparation would be the first choice. It removes organisms, the majority of organisms effectively and requires less time, approximately 20 to 30 seconds to carry out. And in a lot of cases is less irritant to the skin. However they advised that it is not a replacement for hand wash with soap and water and this process should be used if hands are visibly dirty or soiled, so with blood or other organic matter or perhaps if there has been potential exposure to spore-forming pathogens. And the hand wash procedure takes a bit longer which is 40 to 60 seconds.

[New slide] So these are the five key moments of hand hygiene as suggested by the World Health Organization. Before touching a patient, before a clean or a septic procedure, after body fluid exposure risk, after touching a patient and after touching patient's surrounding. So obviously you may want to adapt or add in other points to this. But this is the main concept of the five key moments. And as the illustration shows, they're suggesting that you rub hands for hand hygiene and wash hands when visibly soiled. So that's the message to take away.

[Next slide] So another principle or key point is environmental cleaning and disinfection. And obviously we have subsequent webinars in this series and one of them is specifically going to discuss disinfection, use of disinfectants and when and where to use them. So I'm not going to go into too much detail at this point about that, but just some points that you might want to consider. So you need to assess all areas

of the practice, both clinical and nonclinical and look at them according to risk of infection and then make an assessment of the level of cleaning that is required. And from that you can then develop your cleaning schedules and look at a standard approach.

If possible one disinfectant one dilution would be ideal because it helps people to follow protocols. Now obviously understand that this is not always practical, especially in practices where there are various different types of work being undertaken. But as far as possible, simplify the process with easy to follow protocols. And as with all things, appropriate training is necessary. And it's an area where sometimes people assume that everybody knows how to do something and we would need to make sure that part of our induction protocols cover the cleaning and the reasons behind why we do what we do. The protocols need to be readily available and displayed if possible in an obvious place and not hidden away, so that we can refer to them as often as necessary. And then another big area would be to make sure that you have your cleaning schedules sorted out and then established checklists to make sure that the routine intervals and frequency of cleaning is being carried out.

And then monitoring the environment following cleaning. There's a few ways that this can be done. Some people will be collecting swaps for culture from the environment to see what is cultured. And others will be using fluorescent markers which can be put in certain areas and then checked afterwards with UV light to establish how clean they are. And then also some practices are starting to look at surface hygiene monitoring with [Adenosine tri-phosphate] ATP monitors. This is a process that has been undertaken in the food hygiene industry and at this stage is being trialled in veterinary practice I believe. It could be a useful tool, but we're still in the process of trialling that. And the idea behind that would be that the surfaces are cleaned and then swaps are taken and examined by the monitor to detect any residue of organic material.

[Next slide] Next, wanted to talk about categorizing patients. This process helps to establish where patients might be kennelled and also how we might manage those patients by looking at their clinical condition. And the risk of infection. And a simple tier system can be adopted. Once that has been created the tier system would be shared and displayed so that everybody within the clinical teams understands the concept of which patients fall into which category.

[New slide] So as a suggestion, you would obviously need to create a chart or a document that included the different tier levels. And in the practice where I work, we have a system of tears between one and, well, four and then we have another category which is referred to as four plus. And then you need to think about defining the patient type that fall within each of the tiers and look at some examples of cases to give people an idea of the conditions that fall into each category.

And then once they have done that, where in the practice the patient's going to be housed and what level of PPE would be required to manage those cases. And just as an example, tier one would be your patients that would be at high risk for acquiring infection due to a poor immune status, for example. So they would be perhaps your unvaccinated patients, neonates or immunocompromised patients. And they would be housed in, in a regular ward environment, but they would be barrier nursed in those situations to prevent them from getting infected. Tier two patients with no evidence of contagious disease. So these would be elective procedures perhaps, and they would be in a regular ward environment with no PPE. Tier three would be your patients that have infectious disease that can be

contained with barrier nursing alone. So something like your patient with ringworm or salmonella or something like that, they would be in the regular ward area. But they would be barrier nursed in that situation. And then we move on to the higher tiers where these are patients that would be housed in isolation and they would be patients known or suspected to have highly contagious disease. So it's like your parvovirus or distemper or kennel cough. And they would definitely be managed by barrier nursing and appropriate PPE.

[New slide] So now I'm just going to move on to the different areas of the practice and just highlight some considerations for infection control. I think for some of you, you will already have protocols that include these points, but there might be some additional things that you wish to consider when revising or developing protocols. So in general ward areas if you have the space it should have a separate wards for different disciplines for surgical versus nonsurgical cases, or medicine or surgery cases and separate them out. And then obviously a separate isolation facility as well. I understand that in some practices that that isn't possible, I'll talk about isolation facilities in a separate slide in a moment. If you can separate your food preparation area so that you using a different area for food preparation as opposed to where you might be washing up cat litter trays or cleaning, bathing patients and that sort of thing. So keep your food prep area separate.

Have PPE gloves, aprons, or long-sleeved thumb loop gowns available already so that people can use them, they'll be more inclined to use them if they are there and available. And consider appropriate waste management and making sure that bins are highlighted and waste segregation is obvious. And foot operated bins will obviously mean that you limit the number of times that the lids of the bins are touched. If we thinking about sinks and hand-washing, so the ideal scenario would be to have a sink that is identified as a hand wash sink only and make sure that there is the appropriate lever operated mixer taps if possible. And that the dispensers for soap are elbow operated or ideally automatic soap dispensers. And if you're considering soap dispensers as a new purchase, then look at the varieties that are now available with sealed cartridge systems, which have an integral pump, which means that you don't have to open and pour in a refill of soap. Soap dispensers can be a reservoir for bacterial contamination. And if you're constantly topping up a soap dispenser with liquid soap and using, putting new soap onto old, then you're just ending up with a reservoir of contamination potentially.

It's useful to have hand wash and or hand rub posters around or near the sinks. And if you are putting up posters, make sure that they are laminated so that you can wipe them clean easily and they're not getting scruffy and dirty. Notoriously areas around sinks get splashed and contaminated. And if you have paper posters there, then they're going to be dirty and scruffy pretty quickly. Also consider paper towel dispensers and have those by the sink so that you're using the paper towel to dry your hands and then disposing of it.

And it's important to think about, with regards to infection control, when you're writing protocols for management of cases and patient care procedures because you need to think about the aspects of infection control and make that part of the routine. So I'm always advising the use of gloves when you're managing lines. So IVs, feeding tubes, chest drains or anything that's a line in or out of the patient needs to be managed appropriately. And you need to have a set protocol for managing those. And it's really useful to have those almost like a checklist for case management. And then obviously as we've said a

number of times already, cleaning schedules and checklists need to be considered for each area. And the next slide we'll talk a bit about different considerations for cleaning in within the ward area.

And at this point just wanted to mention dog leads. Colour-Coded dog leads are useful and I expect a lot of people already use this system. A red lead we would use for patients that need to be barrier nursed. And so we would take a red lead. We wouldn't admit patients with their own leads. We would label a red lead and that would stay with that patient to be barrier nursed. And patients in wards that need to be barrier nursed would have a different colour hospitalization sheet. So they would have a pink hospitalization sheet. So it would be an obvious sign as you approach that patient that you need to be barrier nursing. And the other thing to say with leads in the ward area is if you can have two sets of leads, so different colours, maybe a green set and a black set, and then on alternate weeks you might wash those so that you're not continually reusing leads, swapping leads between inpatients for an extended length of time. So as I said, the next slide we'll go on to talk a bit more about cleaning within in the ward area.

[New slide] So we've looked at the ward and hopefully there are, if there are different zones or wards within that area you might be able to rest wards, you might be able to clean in different zones of the practice. And so therefore you would have a specific set of cleaning equipment for each zone. So you wouldn't be sharing cleaning equipment between wards and theatre for example. In the ward area consider the fomites that you will encounter. High touch sites within the environment. I'm not going to list them all, there are many. Keep your surface work surfaces as uncluttered as possible and it makes for easier and a tidy working environment, easier to clean. The cleaning equipment as we've suggested, colour-coded, needs to be fit for purpose, keep it clean and replace it regularly and for example, use a double moping system for cleaning floors. You might have different colour mop heads for different areas. I'm sure you know what a double moping is, or double bucket moping, and you would have two or in some cases three different reservoirs. So you'd have your cleaning solution in one area and then you'd have a separate section of the mop bucket for rinsing your mop. You might have different mops, again, flat surface mop, sponge mop for doing walls and things like that. And then also thinking about steam cleaning too.

Industrial washing machines are useful if you can accommodate them because you can have some that incorporate an ozone disinfectant system and they would automatically be disinfecting as they're washing within the cycle. Otherwise you'd need to use a hot-wash for pet bedding and could put disinfectant in the washing load. And then obviously hopefully goes without saying, don't wash all your bedding with along with your theatre wear. And then another idea that might you might suggest in practice would be that staff would arrive at work and then change into work wear and then change again before leaving so that they're leaving their work clothes at work.

[Next slide] So we'll just briefly talk about the isolated patient, talk about the isolation ward and then we'll go on to talk about how we might manage an isolated case having procedures within the practice. So at ideally hospitalized, patients would be hospitalized in a designated ward for isolated cases, and that ward would have an area where you could have stored equipment and consumable items that would be easily accessible but not within the ward itself. If you haven't got that facility within your practice, if you have patients that need to be isolated, you would need to maybe mark a zone around that cage or kennel with hazard tape, just to demarcate the area and make it an official reminder to

people that they shouldn't be stepping over that line unless they are in the right clothing or that they are actually carrying out a task that's necessary.

It's useful to have written protocols for how you manage the isolation area and patients within that area. So we've spoken about categorizing patients, but you need to have a common protocol that considers the way the cases are managed. And there will be, I believe, some examples of protocols available on the RCVS Knowledge website as a resource, examples. And keep equipment separate colour-coded so that it's clear that those things are from isolation and need to not be used in the general ward.

And you would be, depending on the type of case, changing clothing. And so you would need to consider an area where staff could change that's near to the isolation facility if possible, so that after they've worked in that area, the contaminated clothing can be just kept in one place and not causing risk of transmitting infection elsewhere. A separate exercise area is ideal, and enclosed... Near to the isolation so you're not walking too far with these patients. And then consider keeping patient notes outside isolation. But you do obviously need to identify the patient and you would potentially have some laminated cards where you could fill in the patient's name and case number and then that could be wiped clean or renewed for each case.

[New slide] So moving isolated patients that need to undergo procedures, need to be moved around the practice and again we'll make this example available. But the idea would be that you would need to plan in advance. Where will the procedure take place? What's the sort of a minimal disruption to the rest of the practice that you can you can avoid contamination to other patients and other areas of the practice. So prepare in advance everything that you're going to need, but keep the majority of things to one side so they don't get contaminated. And so if they're not needed, they can be returned to their location. Keep people to a minimum and everybody that's involved in that procedure would need to wear PPE.

When you move patient, if you can, if there are enough people to do so, it's useful to assign what we would refer to as a clean runner. So this person wouldn't be handling the patient, but they would be helping to go and collect things or open doors, so that you're not creating an infection risk or you're keeping that risk to a minimum. If you don't have that clean person, you're going to need to consider removing PPE, taking off gloves and gowns, leaving the area, collecting what you need, and then coming back, putting the PPE back on. So if possible, clean runner is beneficial in this procedure. And if you are moving the patients around, if possible put them on a trolley to minimize the contact with the walkways. But if the patient is walked to and from a procedure you'll need to think about disinfection of the floor.

The procedure, as we said the clean runner will not handle the patient, but will be responsible for handling the clean equipment opening and so on. And as we've said already, that if you haven't got that facility, then you're going to need to think about removing and replacing PPE. Keep the area that you're working in as tidy as possible and discard any waste appropriately. And then the next few points really all relate. Same sort of thing. You need to identify anything that is contaminated and mark it as such. So if you are having to leave the area when you return the patient to the wards, it's obvious to everybody else that that room or that workspace is dirty and it needs to be cleaned before it's reused. So it just

avoids the risk of inadvertently contaminating things. And cleaning as soon as possible. The workspace should be cleaned and at a level specified by your protocols. And the person cleaning the room should also wear the same level of PPE as what was worn for the procedure.

[New slide] So we're going to just talk again, it's a topic that is huge but and could have a webinar in itself, but just some key points to consider with your patient's skin preparation procedure. So it's generally a three stage process and the first stage would be clipping and you should consider wearing gloves when you're clipping. So non-sterile gloves. When you pick up the clippers, you need to make sure that they're clean and you would be doing a visual check, checking the clipper's head is clean and also that there are no damaged teeth on the blade to the clippers. You might have the regular size 40 clipper blade but then you would start with that, but you might also need to have a smaller or finer clipper head if you were clipping delicate skin or small areas.

So you would need to be considering a technique that you use when you're clipping fur. The most important thing that you need to avoid at all costs really is clipper rash. And sometimes dogs do have very sensitive skin and it seems that you just pick up the clippers and they develop an inflamed and sensitive looking area of skin. But it is important to try not to scrape the clipper head along the skin or nick the skin because these are things that are going to cause the patient to want to lick or worry at the skin afterwards. And it will increase the risk of surgical site infections. And the next thing you would be considering would be the vacuum that you use to remove the clipped fur. And you need to make sure that you don't touch the nozzle of the vacuum against the skin. You don't want to be sucking at the skin. And you also want to make sure that that's designated for that purpose. It's not a vacuum that is also used for cleaning the floor. And the nozzle and the vacuum should be cleaned regularly.

At this stage, you would also be, if you were preparing limbs for surgery, you would need to bandage the distal part of the limb with cohesive bandage. And some people would be putting a waterproof or non-sterile glove under that bandage as well to ensure that there is no strikethrough and that the foot remained, the area remained dry.

[New slide] One other thing just to mention about clipping also is that you shouldn't clip in advance, too far in advance. It should be done after induction. And although some people want to save time, there is an increased risk of an infection if the patient is clipped too far in advance. So the second stage of the process is the initial skin preparation. So again, wearing non-sterile gloves. The most commonly regarded scrub sedation is chlorhexidine gluconate and at 4%. This some people advocate this as diluted, but actually, it's recommended that it's used neat on wet swabs. So you would be using lint free gauze swabs and you would be preparing those just in advance of the procedure. And so you would wet the swabs and squeeze out excess water and then apply the chlorhexidine and then you would have them in a container. And if there was a short time between preparation and use, you could use a lidded container. It's also important if you consider, when you're taking the non-sterile swabs out of the packet, to prepare your skin prep solution. You need to make sure that you're putting clean hands into the packet to get the swabs out. So that's why we would recommend using gloves.

Once you start your scrub of the skin, be careful, you don't over scrub, you don't want to create an inflamed area. But you do need to use a methodical back and forth motion. And it's thought now that

this is better than the concentric circles that some people have been using. But you must make sure that you don't return contaminated swabs back to the surgical site. And you have enough time to allow the contact time for the chlorhexidine to be effective. When you move your patient at this stage to the theatre area or the place where you're going to be working, you need to make sure that the clipped and prepped site is protected and so it's not contaminated en route to theatre.

[New slide] The final skin prep is a sterile skin prep. So if once you've moved your patient and it's in positions for surgery it may be necessary with gloved hands to repeat the chlorhexidine scrub as we've just discussed. But the final part of the process needs to be sterile and it can be carried out in a number of different ways. So be using solution of chlorhexidine and isopropyl alcohol is recommended. And you would either have a liquid in a bottle that you pour aseptically into a sterile bowl, and then you could use the Rampley sponge holding forceps as in the picture there. And they would be we you have them in the kit, and so the scrubbed assistant would be doing this part of the process before draping. And so the solution is poured aseptically into a bowl. And then the forceps are used to paint the solution onto the skin. There are also commercially, commercial applicators, sterile applicators that you can use to apply the solution so whatever process works, but it needs to be sterile.

[New slide] There's a few other considerations for theatre practice. It's commonly thought that it's a good idea to change into non-sterile theatre wear when working in a theatre and it encourages good discipline and behaviour and people will be aware of infection control. And to be wearing clean clothes is, is, is definitely good, but there is limited evidence that it will actively contribute to a reduction in surgical site infection. However, as I've said, it encourages good behaviour. So I would suggest that that would be the way to work within that area. Footwear again, should be non-slip, enclosed and suitable for washing and disinfection. Cleaning routines need to be developed. So you've got a process that everybody follows at the start of the day when you're setting up the theatre which incorporates damp dusting and then you have a set procedure for how you manage the theatre in-between procedures and then at the end of the day.

You'll also be considering deep cleans and intervals for doing that. And depending on the throughput of cases in theatre, you'll need to set intervals according to your individual practice needs. Also consider setting up a protocol for how you would manage potentially infected cases or cases that we know are infected and they might have to come to theatre, it might be a septic abdomen or it might be a case that has a known infection wound or something like that. As well as using your theatre list appropriately and having the case run towards the end of the list. You need to also consider how you would decontaminate the theatre and the approach to that. And then also consider within your surgical safety checklist that you have stages for checking things like your sterility of surgical equipment and aseptic surgical technique.

And then we need to limit nonessential traffic in the theatre area, keeping footfall, so you don't want people walking in and out of theatre unnecessarily. And if you have an area of the practice that is designated as a theatre area, you might consider having the tacky mats at the entrance. So people come to that point to change shoes or move in and out of theatre with trolleys, there's a sticky surface which picks up any loose dirt and debris, fur and so on, that that might be carried in on trolley wheels or people's feet at that point. And then you can peel off the top layer and you've got another sticky surface so that they're quite useful.

[New slide] Some considerations in the sterile services area. So parts of the practice needs to be set aside as a separate place from where you decontaminate or clean your instruments. So you don't want to be packing instruments and cleaning, sterilizing kits in an area where you're decontaminating, flushing or creating aerosols from dirty instruments. And so consider that work area. And you again need to have protocols in place for managing instruments and equipment that have come from infected cases or used in and procedures where there could be some infected material. And then a standard approach to how you do these things and particularly packing, deliver training and ensure that everybody is following the common protocols. Consider areas where instruments are stored, instruments are dried, you don't want any strikethrough from damp packaging if you're using the peel and seal packages.

If you're using stainless steel tins then that's slightly easier because you haven't got the same risk and strike through, but you need to have appropriate storage areas and check and make sure that the integrity of the packaging is good and not getting damaged by being squashed or, or stored in a sort of confined space.

[New slide] Diagnostic rooms and other areas of the practice where there is a very high traffic area and you've got many fomite hazards in these areas and you need to be looking at ways to provide easily cleaned surfaces and look at ways to declutter and keep these areas tidy. So you can use disposable covers if you use the foam mattresses on your tables. So on an X-Ray table for example, or trolleys and they're just like sleeves that you can take away at the end of the day. Or you can replace in between cases if necessary.

And we would use stickers that just identify at the end of the day if something has been cleaned. And you can get these Clinell clean stickers and tape as well that they produce that you can use to identify areas if you've had to decontaminate an area. And for foam wedges and positioning aids, you can cover those with clingfilm and that provides a surface that can be wiped down in between cases, but also you can put these things in and in the wash and launder them. And you need to consider, I know I keep saying you need to have cleaning schedules and checklists and you need to have protocols for setting up and shutting down. But it really is important and it helps to ensure that things don't get missed and that we are doing a thorough job. And that's one of the key points to infection prevention and control. Doing things properly and not cutting corners.

[New slide] Waiting room. And client waiting areas. A few things to consider here. It's useful to have some hand sanitizer available for clients to use, especially at the moment. But have that obvious. If you have hand washing facilities too, then that's useful. But also in other areas, we have to think about cleaning routines. Surfaces need to facilitate easy cleaning. We need to have processes and not forget these areas when we're developing the cleaning routines. And we need to think about specific training for nonclinical team members, especially in the area of hand hygiene. It's useful for everybody to understand the concept behind hand hygiene.

And I think recently that's an area that every member of the public has probably developed a better understanding. But certainly if you're in the waiting area and you have unvaccinated puppies or kittens,

people need to be aware the reasons why hand hygiene is important. There are an awful lot of areas in the waiting room and reception which are fomites and client and patient touch areas. And these would be things like pens, clipboards door handles. And we would also include the doors, the areas where dog's noses go when they come in and out of the practice and the areas just immediately outside the practice where most dogs stop to go as they arrive at the practice. So you need to be routinely disinfecting these areas as well.

And another thing that I wanted just to mention is water bowls. And a lot of clients will ask for water for their pets and that's fine. But we wouldn't leave a water bowl in the waiting room for communal use and we would have a number of sterilized, clean water bowls under the counter at reception. And then these are used by one patient and then taken away. So it's not a reservoir for everybody's dog to drink from. And then just to consider dog leads, have a supply of dog leads in reception that allows patients to be admitted without their own collars and leads. And we don't want to be taking in any patient possessions if we can because that will add to the risk of infection.

[New slide] And then the other nonclinical areas, staff rooms, offices. And again, we need to think about these areas with regard to our cleaning protocols. And you would have different colour-coded cleaning equipment for use in staff areas, kitchen areas and so on. And then again, we've got fomites here, keyboards are one of the biggest areas, especially if you have office areas where you've got shared desk space or reception areas where you've got shared telephones and so on. And the medical keyboards, which you can get now relatively cheaply are a useful option, but can be cleaned and wiped down effectively when you're cleaning the other fomites in these areas.

[New slide] So in conclusion, infection prevention and control is a massive topic. But it's a team effort across the whole practice. And so everybody needs to get involved and take responsibility. An infection control group is essential in order to form a consolidated approach. And an infection prevention and control nurse or other lead person would ensure evidence-based policies and protocols are appropriate and they will regularly review these protocols and therefore they will then remain effective. Thank you.

Pam Mosedale: Thank you very much Liz. Thank you. That was amazing. It was so comprehensive. Lots of things I hadn't thought of. I totally agree with you about the idea of getting an infection control nurse or infection control group is so important. In my practice standards role I can really tell the difference when you go into a practice where someone's in charge of infection control, but I think that's going to give all of our delegates who are listening to this really good information. And it really fits in well with the other webinars in our series. With the Tim talking about the organisms and then we can just go on to talk about which disinfectants, and something that you touched on today about how to audit it. So thank you so much Liz. That was brilliant. I forgot to say at the beginning that Liz is one of the Trustees of RCVS Knowledge.

So thank you very much for doing this. If any of you've got questions as a result of this, then there's an email address there on the screen. Please do email and your questions and Liz or people within the team, we'll try and answer them for you. And also we've also got a large number of resources on infection control on the RCVS Knowledge website in the QI, the quality improvement section under infection control. There's lots of resources, COVID resources, general infection control resources. So

please use those. They're there for you to use. And just thank you very much for listening and thank you so much again, Liz.