An outbreak of pneumonia in people in China has been drawing worldwide concern about a new coronavirus (termed SARS-CoV-2) as a global public health risk. The new coronavirus was identified after notification of pneumonia cases of unknown cause in December 2019, diagnosed initially in the Chinese city of Wuhan, capital of Hubei province. Thousands of cases have already been detected in China, and the disease has been exported by travelers to many other countries. Initially, there was no clear evidence for person-to-person transmission. In the last few weeks, however, person-to-person spread of the SARS-CoV-2 has been confirmed, as shown by new cases of viral pneumonia among family members and health care providers through close contact.

In January 2020, the World Health Organization (WHO) temporarily named the new virus as 2019 novel coronavirus (2019-nCoV). However, on February 11th it was definitively named SARS-CoV-2 and the disease caused by this virus was named ‘Coronavirus Disease 2019’ (abbreviated “COVID-19”). While more cases of the disease are being reported on a daily basis in China and elsewhere, the exact source of the outbreak is still not known. Currently, there is no evidence suggesting a specific animal host as a virus reservoir, and further investigations are ongoing.

Coronaviruses belong to the family Coronaviridae. Alpha- and beta-coronaviruses usually infect mammals, while gamma and delta coronaviruses usually infect birds and fish. Canine coronavirus, which can cause mild diarrhea and feline coronavirus, which can cause feline infectious peritonitis (FIP), are both alpha-coronaviruses. These coronaviruses are not associated with the current coronavirus outbreak. Until the appearance of SARS-CoV-2, which belongs to the beta-coronaviruses, there were only six known coronaviruses capable of infecting humans and causing respiratory disease, including the severe acute respiratory syndrome coronavirus SARS-CoV (identified in 2002/2003) and Middle East respiratory syndrome coronavirus MERS-CoV (identified in 2012). SARS-CoV-2 is genetically more related to SARS-CoV than MERS-CoV, but both are beta-coronaviruses with their origins in bats. While it is not known whether COVID-19 will behave the same way as SARS and MERS, the information from both of these earlier coronaviruses can inform recommendations concerning COVID-19.

In the last few weeks, rapid progress had been made in the identification of viral etiology, isolation of infectious virus and the development of diagnostic tools. However, there are still many important questions that remain to be answered.

The most up-to-date information and advice on human infection can be found on the following websites:

- Centers for Disease Control and Prevention (CDC) (www.cdc.gov/coronavirus/about/index.html)

The most up-to-date information related to animal health can be found on the following website:

In response to this outbreak, the WSAVA Scientific and One Health Committees have prepared the following list of frequently asked questions for the WSAVA membership in collaboration with One Health interested individuals around the globe. We are aware of issues related to pet abandonment in China and hope that this information will be of use to veterinarians around the world in dealing with the concerns of their clients.

How can I help protect myself and my clinic staff?


Can COVID-19 infect pets?

Currently there is limited evidence that companion animals can be infected with SARS-Cov-2 and no evidence that pet dogs or cats can be a source of infection to other animals or to humans. This is a rapidly evolving situation and information will be updated as it becomes available.

Should I avoid contact with pets or other animals if I am sick with COVID-19?

The CDC recommends the following: “You should restrict contact with pets and other animals while you are sick with COVID-19, just like you would around other people. Although there have not been reports of pets or other animals becoming sick with COVID-19, it is still recommended that people sick with COVID-19 limit contact with animals until more information is known about the virus. When possible, have another member of your household care for your animals while you are sick. If you are sick with COVID-19, avoid contact with your pet, including petting, snuggling, being kissed or licked, and sharing food. If you must care for your pet or be around animals while you are sick, wash your hands before and after you interact with pets and wear a facemask.” Please check for new updates on CDC’s website at www.cdc.gov/coronavirus/2019-ncov/faq.html#2019-nCoV-and-animals

If my pet has been in contact with someone who is sick from COVID-19, can it spread the disease to other people?

While we do not yet know for sure, there is limited evidence that companion animals can be infected with or spread SARS-Cov-2. We also do not know if they could get sick from this new coronavirus. Additionally, there is currently no evidence that companion animals could be a source of infection to people. This is a rapidly evolving situation and information will be updated as it becomes available.

What should I do if my pet develops an unexplained illness and was around a person with documented COVID-19 infection?

We don’t yet know if companion animals can get infected by SARS-Cov-2 or sick with COVID-19. If your pet develops an unexplained illness and has been exposed to a person with COVID-19, talk to the public health official working with the person with COVID-19. If your area has a public health
veterinarian, the public health official will consult with them or another appropriate official. If the state public health veterinarian, or other public health official, advises you to take your pet to a veterinary clinic, call your veterinary clinic before you go to let them know that you are bringing a sick pet that has been exposed to a person with COVID-19. This will allow the clinic time to prepare an isolation area. Do not take the animal to a veterinary clinic unless you are instructed to do so by a public health official.

What are the concerns regarding pets that have been in contact with people infected with this virus?

While COVID-19 seems to have emerged from an animal source, it is now spreading from person-to-person. Person-to-person spread is thought to occur mainly via respiratory droplets produced when an infected person coughs or sneezes. At this time, it’s unclear how easily or sustainably this virus is spreading between people. Learn what is known about the spread of newly emerged coronaviruses. Importantly, there is limited evidence that companion animals including pets such as dogs and cats, can become infected with SARS-Cov-2.

Although there is no evidence that pets play a role in the epidemiology of COVID-19, strict hand hygiene should be maintained by the entire clinical team throughout the veterinary interaction, especially if dealing with an animal that has been in contact with an infected person.

What should be done with pets in areas where the virus is active?

Currently there is limited evidence that pets can be infected with this new coronavirus. Although there have not been reports of pets or other animals becoming sick with COVID-19, until we know more, pet owners should avoid contact with animals they are unfamiliar with and always wash their hands before and after they interact with animals. If owners are sick with COVID-19, they should avoid contact with animals in their household, including petting, snuggling, being kissed or licked, and sharing food. If they need to care for their pet or be around animals while they are sick, they should wash their hands before and after they interact with them and wear a facemask.

This is a rapidly evolving situation and information will be updated as it becomes available.

Should veterinarians start to vaccinate dogs against canine coronavirus because of the risk of SARS-Cov-2?

The canine coronavirus vaccines available in some global markets are intended to protect against enteric coronavirus infection and are NOT licensed for protection against respiratory infections. Veterinarians should NOT use such vaccines in the face of the current outbreak thinking that there may be some form of cross-protection against COVID-19. There is absolutely no evidence that vaccinating dogs with commercially available vaccines will provide cross-protection against the infection by COVID-19, since the enteric and respiratory viruses are distinctly different variants of coronavirus. No vaccines are currently available in any market for respiratory coronavirus infection in the dog. [Information from the WSAVA Vaccination Guidelines Group].

What is the WSAVA’s response to reports that a dog has been ‘infected’ with COVID-19 in Hong Kong?
Reports from Hong Kong indicated that the pet dog of an infected patient had tested “weakly positive” to COVID-19 after routine testing. The dog, which is showing no relevant clinical signs, was removed from the household, which was the possible source of contamination, on 26 February and it is currently under quarantine. Retesting was performed after the dog was put under quarantine to determine whether the dog was in fact infected or whether its mouth and nose were being contaminated with COVID-19 virus from the household.

The Hong Kong SAR Agriculture, Fisheries and Conservation Department (AFCD) reported that nasal, oral, rectal and faecal samples from the dog have been tested. On February 26 and 28, oral and nasal swabs were positive, while on March 2, only nasal swabs showed positive results. The rectal and faecal samples tested negative on all three occasions. Testing at both the government veterinary laboratory (AFCD) and the WHO accredited diagnostic human CoV laboratory at Hong Kong University (HKU) detected a low viral load in the nasal and oral swabs. Both laboratories used the real-time reverse transcriptase polymerase chain reaction (RT-PCR) method and the results indicate that there was a small quantity of COVID-19 viral RNA in the samples. It does not, however, indicate whether the samples contain intact virus particles which are infectious, or just fragments of the RNA, which are not contagious.

According to the AFCD, the “weak positive” result from the nasal sample taken 5 days after the dog was removed from the possible source of contamination suggested that the dog had a low-level of infection and that this was likely to be a case of human-to-animal transmission. Gene sequencing of the COVID-19 virus from the dog, and its close contact persons who were confirmed infected, showed that the viral sequences were very similar, which indicates that the virus likely spread from the infected persons to the dog.

A blood sample was also taken from the dog on March 3 for serological testing and the result was negative. The AFCD states that the negative serological test result should not be interpreted to suggest that the dog was not infected with the virus. It is known in some asymptomatic or mild cases of human infections with other types of coronavirus that antibodies may not always develop. It is also not uncommon in the earlier stages of infections to have a negative serological result as it often takes 14 days or more for measurable levels of antibodies to be detected. Another blood sample will be taken later for further testing and AFCD will continue to monitor the dog.

The AFCD emphasized that there is still currently no evidence that pet animals can be a source of infection of COVID-19 or that they can become sick. Apart from maintaining good hygiene practices, pet owners need not be overly concerned and under no circumstances should they abandon their pets.

WSAVA urges pet owners in areas where there are known human cases of COVID-19 to continue to follow the information in its Advisory, including washing their hands when interacting with their pets and, if sick, wearing face masks around them.

The situation is rapidly evolving, and information will be updated as it becomes available.

Note: WSAVA recognizes that not all recommendations will apply to all areas or all regions at all times, depending on the epidemiological risk and risk mitigation in the area. WSAVA encourages veterinarians to keep in close contact with, and follow the directions of, their local veterinary authority.

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