Q: Hong Kong’s Agriculture, Fisheries, and Conservation Department (AFCD) has indicated that a pet dog whose owner had contracted COVID-19 had been tested for SARS-CoV-2 and that multiple tests over several days’ time had come back “weak positive.” Do you have more information and should we be worried for our pets or for ourselves?

A: The ACFD first collected samples from the pet dog, reportedly a 17-year-old Pomeranian, on February 26 and detected low levels of SARS-CoV-2 material in samples from its nasal and oral cavities on February 27, using a real time reverse transcriptase polymerase chain reaction (RT PCR) test. The RT PCR test is sensitive, specific, and does not cross-react with other coronaviruses of dogs and cats. The ACFD repeated the test on February 28, March 2, and March 5 with continued “weak positive” results (nasal and oral sample, nasal sample, nasal sample, respectively). “Weak positive” suggests a small quantity of SARS-CoV-2 RNA in the samples. It doesn’t distinguish whether the samples contain intact viruses, which are infectious, or only fragments of the RNA. To better understand what this finding means, additional testing has been, and continues to be, conducted.

Part of that testing is serology to see if the dog is mounting an immune response to the virus. An acute phase sample was negative, indicating there are currently not measurable amounts of antibodies to the virus in the dog’s blood. This does not mean the dog is not infected with the virus, because it is not uncommon to have a negative result in earlier stages of infection. It can take 14 days or more for measurable levels of antibodies to be detected. Hong Kong officials advised that a second “convalescent” phase sample will be obtained later for further testing. In addition, gene sequencing of the SARS-CoV-2 virus from the dog and its close human contacts has been done and the viral sequences are very similar.

Experts from the School of Public Health of the University of Hong Kong and the College of Veterinary Medicine and Life Sciences of the City University of Hong Kong believe the consistency and persistence of the results suggest the virus may have spread from the infected people to the dog in this particular case. Follow-up serology is pending.

Testing has been conducted by the laboratories of the AFCD and the School of Public Health of the University of Hong Kong. The latter is an accredited reference laboratory for the WHO for the testing of SARS-CoV-2.

This pet dog is one of two pet dogs under quarantine in separate rooms in a facility at the Hong Kong Port of Hong Kong-Zhuhai-Macao Bridge; the second pet dog has had negative results of tests for the virus. The pet dogs are being cared for and neither has shown any signs of being ill with COVID-19.

In other testing, IDEXX announced on March 13 that it had evaluated thousands of canine and feline specimens during validation of its new veterinary test system for the COVID-19 virus and had obtained no positive results. The specimens used for test development and validation were obtained from specimens submitted to IDEXX Reference Laboratories for PCR testing.

Considering this information in total, infectious disease experts and multiple international and domestic human and animal health organizations agree there is no evidence at this point to indicate that pets become ill with COVID-19 or that they can spread COVID-19 to other animals, including people.
Q: Can SARS-CoV-2 infect pets and can it be spread by pets to other animals, including people?

A: We do not have a clear answer as to whether SARS-CoV-2 can infect pets at this time. That said, currently, there is no evidence that pets become sick. Infectious disease experts, as well as the CDC, OIE, and WHO indicate there is also no evidence to suggest that pet dogs or cats can be a source of infection with SARS-CoV-2, including spreading COVID-19 to people. More investigation is underway and, as we learn more, we will update you.

However, because animals can spread other diseases to people and people can also spread diseases to animals, it’s a good idea to always wash your hands before and after interacting with animals.

Q: Can pets serve as fomites in the spread of COVID-19?

A: COVID-19 appears to be primarily transmitted by contact with an infected person’s bodily secretions, such as saliva or mucus droplets in a cough or sneeze.

COVID-19 might be able to be transmitted by touching a contaminated surface or object (i.e., a fomite) and then touching the mouth, nose, or possibly eyes, but this appears to be a secondary route. Smooth (non-porous) surfaces (e.g., countertops, door knobs) transmit viruses better than porous materials (e.g., paper money, pet fur), because porous, and especially fibrous, materials absorb and trap the pathogen (virus), making it harder to contract through simple touch.

Because your pet’s hair is porous and also fibrous, it is very unlikely that you would contract COVID-19 by petting or playing with your pet. However, because animals can spread other diseases to people and people can also spread diseases to animals, it’s always a good idea to wash your hands before and after interacting with animals; ensure your pet is kept well-groomed; and regularly clean your pet’s food and water bowls, bedding material, and toys.

Q: How do I best protect myself and my veterinary team from infection with COVID-19?

A: Stay informed about the local COVID-19 situation. Know where to turn for reliable, up-to-date information in your local community. Monitor the CDC’s COVID-19 website and your state and local health department websites.

Coordination with state and local health officials is strongly encouraged for all businesses so that timely and accurate information can guide appropriate responses in each location where their operations reside. Since the intensity of an outbreak may differ according to geographic location, local health officials will be issuing guidance specific to their communities.

Because there is currently no vaccine available to prevent COVID-19, the best way to prevent illness is to avoid exposure to the virus. Taking typical preventive action is key: team members should avoid close contact (defined as being within approximately 6 feet [2 meters] of an individual ill with COVID-19 for a prolonged period of time) with other people who are ill; avoid touching their eyes, nose, and mouth; cover their coughs or sneezes with a tissue, then throw the tissue in the trash; wash their hands often with soap and water for at least 20 seconds, especially after blowing their nose, coughing, or sneezing, going to the bathroom, and before eating (if soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol); and stay at home when they are sick.

Surfaces in the veterinary clinic/hospital that are touched frequently, such as workstations, keyboards, doorknobs, countertops, and stethoscopes, should be cleaned often and wiped down by employees with disposable wipes between cleanings. Provide no-touch disposal receptacles. Place hand sanitizers in multiple locations, including in exam rooms, offices, and conference rooms to encourage hand hygiene.
Veterinary healthcare team members who have symptoms of acute respiratory illness should stay at home and should not return to work until they are free of fever (fever is defined as 100.4 F or higher, using an oral thermometer), signs of a fever, and any other symptoms for at least 24 hours without the use of fever-reducing or other symptom-altering medicine (e.g., cough suppressants). Communicate about COVID-19 with your team. Flexible sick leave policies are important and team members should be made aware of these policies. Team members who appear to have symptoms of acute respiratory illness upon arrival at work or who become sick during the day should be separated from other team members and sent home immediately.

If a team member is confirmed to have COVID-19, the veterinary practice owner should inform other team members of their possible exposure to COVID-19, but maintain confidentiality as required by law. Team members who are exposed to another employee with confirmed COVID-19 should contact their physician or local health department to determine how best to proceed.

Telemedicine can be an excellent option to support good patient care while also helping to prevent person-to-person (including client to veterinary staff and vice versa) and minimize community spread of COVID-19. You’ll need to have appropriately established a veterinarian-client-patient relationship with an in-person examination (or visits to the facility for groups of animals) and a telemedicine visit will need to be appropriate for the medical concern to be addressed.

Q: The animal of a client who is ill with COVID-19 needs to be seen urgently, how do I proceed?

A: In the case that a client is ill and their animal needs to be seen urgently, ensuring that a healthy individual is taking the animal to the hospital is a priority, as an ill owner poses a risk of transmitting COVID-19 to veterinary hospital staff and other clients. If the owner is unable to find another person to bring the animal to the hospital, the use of telemedicine should be considered.

Consider meeting clients with ill animals at their cars, rather than having them bring those animals into your waiting room. When meeting clients, as a precaution, veterinary team members should wear appropriate PPE. This should reduce risk for both veterinary team members and clients, as human-to-human contact is still believed to be the primary mode of transmission.

Current information indicates that contact with human COVID-19 cases, not animals, poses the greatest risk of transmission. If the animal appears ill, existing hospital biosecurity and personal protective equipment (PPE) protocols should be adhered to, as would be the case with any other animal that presents with illness.

Mobile and house call veterinarians can consider examining animals in their vehicle, outside, seeking the assistance of a local clinic, or using telemedicine (assuming a veterinarian-client-patient relationship has already been established). If a mobile or house call veterinarian must examine an animal in a home where someone is ill with COVID-19 and no other options are available, they should consult with local public health officials for guidance. Appropriate PPE should be considered in all cases, and mobile and house call veterinarians should ensure they have access to handwashing and disinfection materials.

COVID-19 aside, it is always a good idea to take steps to prevent the spread of disease by following the guidance provided in the National Association of State Public Health Veterinarians’ Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel.
Q: Is there a test I can use to check my patients for SARS-COV-2?

A: IDEXX announced the availability of a test on March 13, but neither the CDC, AVMA, nor IDEXX is recommending that pets be tested at this time. In announcing the availability of their test, IDEXX indicated that thousands of canine and feline specimens had been evaluated during their validation of the test and none had come up as being positive. These results align with the current expert understanding that COVID-19 is primarily transmitted person-to-person and supports current recommendations against testing pets for the COVID-19 virus. Dogs or cats with respiratory signs should be evaluated by a veterinarian for more common respiratory pathogens before looking to evaluate them for COVID-19.

It’s important to remember that there is currently limited evidence that pets, can be infected with SARS-CoV-2. There is no evidence to suggest that pets can spread COVID-19 to other people or other pets.

Q: We’re starting to see challenges in obtaining masks and gowns for use in our practice. What should we do?

A: Given expanding needs for personal protective equipment (PPE), all healthcare professionals are being encouraged to conserve. The FDA has shared some surgical mask and gown conservation strategies. While FDA’s recommendations are primarily directed toward human healthcare providers, some of these strategies might be considered in veterinary practice (e.g., extended use of masks; reusable, rather than disposable, gowns). Suggestions specific to veterinary practice are also available from the Centre for Public Health and Zoonoses (see March 5 entry in their Worms & Germs Blog).