

## FOR VETERINARIANS

### H3N2 CANINE INFLUENZA VIRUS FACT SHEET

#### **What is H3N2 Canine Influenza Virus?**

H3N2 canine influenza virus (H3N2 CIV) is an influenza A virus that is specific for dogs. The virus is currently circulating in dogs in different communities in the country, including Florida and Georgia. Most dogs have no immunity to this virus and will be infected upon exposure. H3N2 CIV can also infect cats. There is no evidence that this virus infects people.

#### **What does H3N2 CIV cause?**

H3N2 CIV is specific for the respiratory system. It infects both the upper and lower respiratory tract. Clinical signs include frequent cough, sneezing, and nasal discharge that can persist for 2 weeks. Some dogs develop a fever (>103.5F) within the first few days and progress to life-threatening pneumonia. Secondary bacterial co-infections are common.

#### **How is H3N2 CIV transmitted?**

This is a highly contagious virus transmitted by direct contact with infected dogs and by indirect contact with a contaminated environment and people. Dogs that participate in group activities or are housed in communal facilities are at highest risk for exposure. This includes dog shows, boarding facilities, dog parks, grooming parlors, obedience classes, veterinary clinics, animal shelters, rescue groups, etc. H3N2 CIV should be included in the differential for dogs with an acute onset of cough and a compatible exposure history.

#### **How should I respond to potential cases?**

- Since this is a highly contagious virus, protection of other dogs in the clinic is paramount.
- Coughing dogs generate virus-containing aerosols that travel 20 feet or more, so it is very challenging to have these dogs in the clinic without risk for transmission. Strict biosecurity measures are crucial to prevention of virus spread.
- Instruct owners to call the receptionist when they arrive and wait in their car with the dog. Neither the owner nor the dog should enter the waiting room. The best time to see these dogs is during times of low appointment activity.
- The veterinarian and assistants should wear PPE that covers their entire body and bring the dog and owner through a separate entry into the nearest exam room. No other personnel or animals should walk in this hallway until it is disinfected.

- The exam room should contain dedicated stethoscopes and other supplies that are not re-used for other dogs.
- Accurate diagnosis of the cause of respiratory signs is essential for planning adequate treatment and control measures. It is not possible to diagnose influenza virus based on clinical signs alone. Specific diagnostic testing is recommended over presumptive diagnosis.
- The most accurate diagnostic test is PCR performed on swabs of the nasal cavity and caudal pharynx. You can access a video demonstration for swab collection at this link:  
<https://www.youtube.com/watch?v=wYP4cFh398>
- Most dogs can be treated as outpatients. Since secondary bacterial infections are common, the new guidelines for treatment of acute-onset respiratory infections recommend empirical treatment with a broad-spectrum antibiotic such as doxycycline or Clavamox®. A cough suppressant may be helpful.
- Medications should be filled by staff that has not been in contact with the dog or the exam room.
- Dogs infected with H3N2 CIV are contagious to other dogs for up to 3-4 weeks, which is much longer than other canine respiratory pathogens. Instruct the owner to keep their dog and all other dogs in the household isolated for 4 weeks. The owner should call if their dog stops eating, is lethargic, and has an increased respiratory rate or effort. The owner should also call if other dogs in the household develop clinical signs.
- Payments should be arranged so that the client or contaminated staff in PPE do not enter the reception or check-out area.
- The dog and owner should be discharged through the same door that they used to enter the exam room.
- Disinfect the exam room and the hallway leading to the entry/exit door. H3N2 CIV can persist in the environment for 12 to 24 hours but is easily inactivated by common disinfectants and handwashing with soap and water.
- Many dogs with severe pneumonia require inpatient hospital care. This can be challenging because these dogs are highly contagious and must be in a separate isolation room with 24-hour care provided by dedicated staff in full coverage PPE. Referral to a veterinary teaching hospital or specialty clinic may be required.