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Fact Sheet/Tips: Canine Influenza

Canine influenza is a RNA virus. Dogs are the only known susceptible species; there is no evidence at this time that infected dogs pose a risk to humans or other species. There are no other known age or breed risk factors for infection, severe disease or death. Healthy, well vaccinated dogs of all ages may be affected.

The incubation period is 2-5 days from exposure to onset of clinical signs. Peak viral shedding occurs 2-4 days after infection, meaning that *dogs may be at their most infectious prior to showing signs of disease.* In experimentally and naturally infected dogs, viral shedding ceases by 7 days post infection.

Clinical signs

When canine influenza first strikes a given population, virtually 100% of dogs will become infected. However, up to ~ 20% will show no signs of disease. Therefore, all exposed dogs must be considered an infectious risk, whether or not they are showing signs of respiratory infection. In most dogs, signs of infection are similar to “kennel cough.”

Transmission

Canine influenza is spread via aerosolized respiratory secretions and contaminated objects (kennel surfaces, food and water bowls, collars and leashes) and people moving between infected and uninfected dogs. The virus can remain viable (alive and able to infect) on surfaces for up to 48 hours, on clothing for 24 hours, and on hands for 12 hours.

Clinical Signs

The majority of infected dogs exhibit the mild form of influenza infection. In the mild form, the most common clinical sign is a cough that persists for 10 to 21 days despite treatment with

antibiotics and cough suppressants. Most dogs have a soft, moist cough, whereas others have a dry cough that is similar to that induced by *Bordetella bronchiseptica*/parainfluenza virus infection. Many dogs have a purulent nasal discharge and a low-grade fever.

Some dogs are more severely affected with clinical signs of pneumonia, such as a high-grade fever (104°F to 106°F) and increased respiratory rate and effort. Thoracic radiography (chest x-rays) may reveal consolidation of lung lobes.

Prevention and control

In veterinary, boarding and shelter facilities, the canine influenza virus appears to be easily killed by disinfectants commonly used in these facilities, such as quaternary ammonium compounds (eg, benzalkonium chloride) and bleach solutions. Protocols should be established for thoroughly cleaning and disinfecting cages, bowls and other surfaces between uses. The virus may persist in the environment for approximately 2 days, and be viable on hands and clothing for up to 24 hours.

Employees should wash their hands with soap and water:
- before and after handling each dog
- after coming into contact with dogs' saliva, urine, feces, or blood
- after cleaning cages
- upon arriving at and before leaving the facility.

Other considerations:
- Limited, designated staff only to enter quarantine/isolation areas
- Separate jumpsuits (full clothing coverage), gloves, boots or shoe covers
- Separate cleaning, feeding and treatment supplies

Isolation protocols should be rigorously applied for dogs showing clinical signs of respiratory disease. Sick or exposed dogs should be isolated for two weeks. Clothing, equipment, surfaces and hands should be cleaned and disinfected after exposure to dogs showing signs of respiratory disease.[2] Dog owners whose dogs are coughing or exhibiting other signs of respiratory disease should not participate in activities or bring their dogs to facilities where other dogs can be exposed to the virus. A vaccine is available and intended as an aid in the control of disease associated with canine influenza virus infection. Although the vaccine may not prevent infection altogether, efficacy trials have shown that the vaccination may significantly reduce the severity and duration of clinical illness, including the incidence and severity of damage to the lungs.[4] In addition, the vaccine reduces the amount of virus shed and shortens the shedding interval; therefore, vaccinated dogs that become infected develop less severe illness and are less likely to spread the virus to other dogs.[9] These benefits are similar to those provided by influenza vaccines used in other species, including humans.

References:

http://www.avma.org/public_health/influenza/canine_bgnd.asp
http://www.sheltermedicine.com/shelter-health-portal/information-sheets/canine-influenza