

Canine Influenza

An emerging disease of which all veterinary staff need to be aware is the canine influenza virus H3N8. This is a newly evolved virus which causes respiratory signs in dogs. It evolved from the equine influenza virus which has been known for over forty years. The two major questions to answer are:

- 1) what does this virus mean for dogs, their owners, and veterinarians?
- 2) given the concern over a human flu pandemic arising from an avian influenza virus, and the close proximity that people live to their dogs, is there a public health concern with this new dog influenza strain?

The H3N8 canine influenza virus is a highly infectious virus, almost 100% of exposed dogs will become infected. It is a virus of high morbidity and low mortality. This means that most dogs will show symptoms of illness but very few dogs will die. In fact, about 80% of dogs will show signs of illness and approximately 1-8% of infected dogs will die. The dogs that are infected but not ill are still able to transmit the virus.

Most dogs develop clinical illness similar to infectious tracheobronchitis with a cough that lasts for 1-3 weeks. They can also have a fever and some nasal discharge. They will show signs 2-5 days after exposure, and are infectious for the first 7-10 days of illness. More severely affected dogs will develop pneumonia with a high fever and increased respiratory effort.

This is a different disease than the parainfluenza virus, which we are currently vaccinating for in our intranasal ITBC, so the infectious tracheobronchitis vaccine provides NO protection against canine influenza. The infectious tracheobronchitis vaccine is still recommended because at this time the bordetella bacteria is thought to be the most prevalent cause for respiratory signs in dogs. There is now a vaccine available for canine influenza. While we do not actively promote the vaccine as the vaccine and disease are relatively new, we do carry this vaccine for dogs at high risk or for dogs being boarded at kennel facilities that require the vaccine. For now, prevention of the disease consists primarily of preventing exposure to infected dogs. The current recommendation is for an owner is to go to kennels and facilities which are well known to them. They should ask the facilities about any recent occurrences of respiratory illness or reports of influenza in the area. They should also keep their own dog at home to recover for two weeks if it is showing any signs of respiratory illness.

In the clinic situation, possibly infected dogs should be treated as other dogs with contagious illness. They should not be allowed to mingle with other dogs in the waiting area, and they should be housed in isolation. Protocols for cleaning and isolation are the same as for diseases like parvovirus. Treatment of the affected animal should be supportive, with fluids and antibiotics to treat secondary infections.

The next question to answer is whether this new evolved virus poses a risk to humans? Right now there is no evidence to suggest people are susceptible. It is unknown whether

the changes in the equine viruses that made it infectious to dogs made it more or less likely to become infectious to people.