Influenza in Pets

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In the U.S., canine influenza is an interesting phenomenon. Like most imported or novel diseases that usually do not cause much mortality, it appears the disease can exist in an area for a long period of time before being recognized. This is likely due to the absence of routine surveillance for diseases that primarily affect pets.

There are two types of canine influenza (general category, Influenza A) circulating within the U.S.: H3N8 and H3N2.

H3N8 was transmitted initially to dogs (mostly racing greyhounds in the initial outbreak) from horses. This influenza, beginning to be recognized in 2004 and characterized by fairly high mortality in dogs, now exhibits mortality less frequently and occurs sporadically throughout the United States. Louisiana is not one of the states that has experienced much of a problem. The virus is now considered a canine virus that is easily transmitted dog-to-dog.

The second type canine influenza is an H3N2 virus that entered the U.S. from the Far East. This virus was originally an avian virus that adapted to be transmitted easily dog-to-dog, and sometimes to cats. This virus appears to be spreading rapidly throughout the United States.

It is very possible that respiratory conditions (cough, nasal discharge and fever) in kennels anywhere in the U.S. may be due to either of these viruses. The signs of the virus are usually fairly mild, and there appear to be a number of asymptomatic animals that can be colonized by the virus. Most dogs will not experience a severe illness, but will show signs such as coughing, lethargy and nasal discharge. Some may develop a more serious pneumonia with fever. Asymptomatic infections also occur. Most dogs recover in two to three weeks, but many develop secondary bacterial respiratory conditions, even pneumonia.

The more times that dogs come in contact with other dogs, such as in boarding kennels and animal shelters, the greater the chance of contracting the disease. Sick animals, even those with mild signs, should be kept away from other dogs.

In cats, an outbreak of influenza A, H7N2 was identified in animal shelters in New York in late 2016. A person with close, sustained contact with the cats’ respiratory secretions was also rendered mildly ill by the virus, and recovered uneventfully. Current surveillance is being conducted by the U.S. Centers for Disease Control and Prevention (CDC) in an attempt to detect spread of the virus.

Public health officials are primarily concerned with the ability of animal influenza A viruses to acquire genes that would make any type of influenza easily contagious to people. At present, the CDC does not expect canine viruses to acquire these genes; therefore, local and state health agencies have not generally taken active roles in surveillance. Since the H7N2 influenza virus in cats has caused illness in at least one person, more active surveillance has been noted. Nevertheless, the CDC monitors all influenza viruses on a continuous basis.
The Louisiana Animal Disease Diagnostic Laboratory (LADDL), (225)578-9777, at website [http://www.lsu.edu/vetmed/laddl/](http://www.lsu.edu/vetmed/laddl/) can conduct RT-PCR influenza A Matrix gene testing to screen for influenza A. Positive samples can then be sent to other laboratories for further subtyping.