

ZOONOTIC AND OTHER ANIMAL DISEASES OF CONCERN IN MARYLAND

Table 1. New or Ongoing Morbidity or Mortality Animal or Zoonotic Disease Events

Estimated first onset	Estimated end date	Jurisdiction affected	Species affected	Diagnosis	Estimated # of cases to date	Lead agency	Comment
August 2013		Montgomery County	Canine	Canine Influenza	6 affected, 2 mortalities	MDA for Information & technical assistance	

For questions regarding specific disease events, please contact the lead agency noted. This contact information is for use by Maryland veterinarians, health professionals and government officials:

MDA - Maryland Department of Agriculture: ahops.mda@maryland.gov, 410-841-5810

DHMH - Maryland Department of Health and Mental Hygiene, Center for Zoonotic and Vector-borne Diseases: dhmh.czvbd@maryland.gov, 410-767-5649

DNR - Maryland Department of Natural Resources, Fish & Wildlife Health Program, FWHP@dnr.state.md.us, 410-226-5193

SITUATION: Canine influenza virus has been identified in up to 6 dogs in Montgomery County this week, and two of the affected dogs have died. Canine influenza causes an acute respiratory infection and is a highly contagious virus. There are two general clinical syndromes, a mild syndrome with a cough, and a more severe respiratory disease that can lead to death.

CLINICAL SIGNS: The milder syndrome of canine influenza mimics kennel cough and Canine influenza virus infections are frequently mistaken for infections due to the Bordetella bronchiseptica/parainfluenza virus complex. The cough persists for 10 to 21 days despite therapy with antibiotics and cough suppressants. Most dogs have a soft, moist cough, while others have a dry cough similar to that induced by Bordetella bronchiseptica/parainfluenza virus infection. Many dogs have purulent nasal discharge and a low-grade fever. The nasal discharge likely represents a secondary bacterial infection that quickly resolves with treatment with a broad-spectrum, bactericidal antibiotic.

Some dogs develop a more severe disease with clinical signs of pneumonia, such as a high fever (104F to 106F) and increased respiratory rate and effort. Thoracic radiographs may show consolidation of lung lobes. (cont'd next page)

To report cases of disease in:	Contact:
Domestic animals	MDA Animal Health Program Office 410-841-5810 http://mda.maryland.gov/animalHealth/Pages/Diseases.aspx
Wild animals	MD DNR / USDA Wildlife Service Call Center 1-877-463-6497 http://www.wher.org
Humans	DHMH Center for Zoonotic and Vector-borne Diseases 410-767-5649 http://ideha.dhmh.maryland.gov/OIDEOR/CZVBD/SitePages/Home.aspx

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Dogs with pneumonia often have a secondary bacterial infection and have responded best to a combination of broad-spectrum, bactericidal antibiotics and maintenance of hydration with intravenous fluid therapy.

FATALITY RATE: Fatal cases of pneumonia have been documented in this and past outbreaks. In previous outbreaks the fatality rate has been low, at 1 percent to 5 percent; it is too early in the reporting of this disease event to provide good epidemiological data. As more information on this current virus strain is gathered and evaluated, additional information will be provided.

INCUBATION/SHEDDING PERIOD: The incubation period for Canine influenza is typically two to five days after exposure before clinical signs appear. Infected dogs may shed virus for seven to 10 days from the initial day of clinical signs. Many infected dogs will not display clinical signs and become the silent shedders and spreaders of the infection.

DIAGNOSIS: At present, the most reliable way to directly detect the virus is through a PCR test on either swabs (nasal swabs preferred) or respiratory tissue. Acute and convalescent serum samples can also be used for diagnosis. Veterinarians may also submit fresh (no formalin or freezing) lung and tracheal tissues from dogs that die from pneumonia for virus culture and PCR analysis.

PREVENTION: Good isolation and sanitation practices should be maintained in veterinary clinics, boarding, shelters, pet stores and anywhere else multiple dogs are maintained. This virus is spread by aerosolized respiratory secretions, contaminated inanimate objects and even by people moving back and forth between infected and uninfected dogs. This is an enveloped virus that is most likely killed by routine disinfectants, such as quaternary ammoniums and 10 percent bleach. Because the virus is highly contagious and all dogs are susceptible to infection, veterinarians, boarding facilities, shelters and pet stores should use isolation protocols for dogs that have a kennel cough. There are approved vaccines for Canine influenza that can be used for prevention of disease in high risk situations.

WHAT VETERINARIANS CAN DO: Veterinarians should isolate any animals reporting signs of respiratory disease prior to entering the veterinary facility. Veterinarians should advise owners of sick animals to keep their dogs isolated from other dogs until the dog is completely recovered and unlikely to shed disease. Samples of suspects can be tested be sent to private laboratories for confirmation of disease. Canine influenza is not a reportable disease in Maryland.

FOR MORE INFORMATION:

Canine Influenza Resources

- Canine influenza testing, vaccines, statistics and history: <https://ahdc.vet.cornell.edu/news/civ.cfm>
- Canine influenza background information: <https://www.avma.org/KB/Resources/Backgrounders/Pages/Canine-Influenza-Backgrounder.aspx>