



NEW YORK CITY DEPARTMENT OF

HEALTH AND MENTAL HYGIENE

Mary T. Bassett, MD, MPH *Commissioner*

2016 Veterinary Advisory #2: Avian Influenza A H7N2 Update

- **Additional cats from the Animal Care Center system have tested positive for avian Influenza A H7N2.**
- **Single human infection confirmed in veterinarian with close, prolonged exposure to the respiratory secretions of ill cats at ACC in absence of respiratory personal protective equipment.**
- **Veterinarians and animal health care providers are reminded to use personal protective equipment including mask and eye protection when caring for cats with respiratory illness.**
- **Influenza A testing in cats is available at the Cornell Animal Health Diagnostic Center.**

Please share with your colleagues in Veterinary Medicine and your staff

December 22, 2016

Dear Veterinary Colleagues,

Additional cats from the Animal Care Centers of New York City (ACC) system including Manhattan, Brooklyn and Staten Island have tested positive for low pathogenic avian influenza A, H7N2 ("H7N2"). The outbreak investigation among cats is being coordinated by ACC and the University of Wisconsin-Madison School of Veterinary Medicine. To control the outbreak and prevent further spread, cat adoptions were discontinued and no cats have been released since December 14, 2016 from the Manhattan shelter and since December 15, 2016 from the Brooklyn and Staten Island shelters. The cats will be moved to another facility where they will be cared for until the outbreak is over allowing ACC to sanitize their facilities and resume normal operations.

ACC staff and volunteers in contact with shelter cats and persons who adopted cats from the Manhattan ACC were screened for illness. ACC workers, regardless of symptoms, were tested for H7N2 virus and offered seasonal influenza vaccination if previously unvaccinated. Individuals with influenza-like symptoms were offered oseltamivir treatment, especially those at higher risk for more severe illness. Human infection with H7N2 was confirmed only in one person. This person is a veterinarian involved in obtaining respiratory specimens from scores of cats at ACC in the absence of respiratory personal protective equipment (PPE). The course of illness was brief, mild and has resolved completely. The individual did not require hospitalization. This is only the third person in the United States reported to have been infected with H7N2 virus, and the only human infection known to be associated with exposure to cats. The previous two infections were thought to be associated with exposure to poultry.

This finding is not unexpected, and supports what has already been communicated; the risk of transmission of H7N2 is thought to be low. Human testing was performed on a cohort of persons with ongoing exposure to cats infected with H7N2, and all but one tested negative. Persons who do not have close, prolonged unprotected exposures to the respiratory secretions of ill cats associated with this outbreak have limited to

no risk of infections. However, human surveillance will continue among persons who work with or have adopted cats from ACC.

Respiratory illness among humans in NYC is currently on the rise due to circulation of seasonal influenza viruses (mostly H3N2) along with other respiratory pathogens. Persons who develop a flu-like illness are most likely to be infected with seasonal influenza or other common respiratory viruses seen in the winter. However the symptoms of seasonal influenza viruses and H7N2 virus are similar.

Veterinarians and animal health care providers who develop a flu-like illness within 10 days of an exposure to a cat with respiratory illness that originated from an ACC facility at any time in December 2016 should inform their provider of this exposure.

Veterinarians and persons providing health care to cats are reminded to use personal protective equipment (PPE) when handling cats with respiratory illness, and to adhere to strict infection control practices to prevent exposures to humans and other cats. PPE including gown and gloves at a minimum should be worn when handling ill animals, as well as a surgical or full face mask. For coughing or sneezing cats or when performing a nasal or oropharyngeal swab, consider goggles if using a surgical mask. Clothing (including shoes), equipment, surfaces and hands should be cleaned and disinfected after exposure to cats showing signs of respiratory disease.

Veterinarians are encouraged to identify in advance persons who are making an appointment for any cat with a respiratory illness who was recently adopted from an ACC facility. This can be done by screening callers at the time they make an appointment. Testing for H7N2 is only recommended in situations in which a cat that was recently adopted from an ACC shelter developed a respiratory illness within 10 days of exiting the shelter. Specimens should be collected within 2 to 4 days from the onset of clinical signs for best results.

For these cats, make arrangements to prevent interaction with other cats in the waiting area by bringing the cat immediately upon arrival to an exam room. Appropriate infection control practices should be implemented while the cat is in your facility as well as disinfection when the cat leaves. Staff should use personal protective equipment when handling suspect cats including gloves, a gown, and a surgical or full face mask. For cats that are coughing or sneezing, consider also using eye goggles if using a surgical mask.

Diagnostic Information

Testing may be indicated for any cat recently adopted from an ACC shelter which develops a respiratory illness within 10 days of exiting the shelter. For cats previously living in a home that are then exposed to a sick cat from ACC, consider testing if the resident cat develops a respiratory illness within 10 days of exposure to the ACC cat. Specimens should be collected within four days of illness onset and submitted for testing to detect virus. Samples collected for virus detection after this time may have a lower diagnostic sensitivity.

Testing can be pursued for a fee through the New York State Veterinary Diagnostic Laboratory at Cornell (see below). Free testing is being offered only upon consultation by the University of Wisconsin Veterinary Diagnostic Laboratory. For more information about free testing, email adoptions@nycacc.org. As you may not get an immediate response, you can consider collecting a deep oropharyngeal swab using a non-cotton, non-wooden swab. Place swab in a red top tube with a small amount of sterile saline – do not place the swab in any culture medium, and hold in a refrigerator.

To pursue testing at the New York State Veterinary Diagnostic Laboratory at Cornell

Use a nylon or Dacron swab (do not use a cotton or wooden applicator), collect the specimen from the nares or oropharynx, and place the swabs in viral transport media or in a red top tube with a few drops of saline. Do not use any culture medium. Samples should be sent by overnight courier with ice packs to the New York State Veterinary Diagnostic Laboratory at Cornell with a completed sample submission form (found online at https://ahdc.vet.cornell.edu/docs/General_Submission_Form.pdf) to the shipping address at the top of the form. The only currently available test for influenza H7N2 in cats is real time reverse transcriptase

polymerase chain reaction (rRT-PCR) for influenza A. Samples testing positive for influenza A will be further characterized to identify the subtype. Please see the information on the Cornell AHDC influenza web site <https://ahdc.vet.cornell.edu/news/civchicago.cfm> for additional information. If necropsy is performed, fresh tissue can also be submitted for rRT-PCR; lung is the preferred specimen. Fixed tissue cannot be used for influenza testing, but if submitted can be used for histopathology to identify other potential causes of illness.

A serology assay to detect antibodies to H7N2 is not currently available but is being developed by Cornell. The serologic assay will help evaluate exposure to H7N2 virus for cats that were infected but recovered.

Cornell Shipping Information

Veterinarians wishing to use the AHDC for testing can access information online. Ship samples overnight on ice packs. Visit the AHDC website for the following;

Submission form: https://ahdc.vet.cornell.edu/docs/General_Submission_Form.pdf

Labels: https://ahdc.vet.cornell.edu/docs/Shipping_Discount_Program_Information.pdf

Infection Control

Stringent adherence to infection control is the best way to prevent transmission of influenza viruses.

Guidance on the development of an infection control plan can be found online with The National Association of Public Health Veterinarians Model Infection Control Program at

<http://nasphv.org/documentsCompendia.html> or the Infection Prevention and Control Best Practices for

Small Animal Veterinary Clinics from the Canadian Committee on Antibiotic Resistance at

<http://www.wormsandgermsblog.com/files/2008/04/CCAR-Guidelines-Final2.pdf>

Guidance on managing canine influenza can be applied, and can be found on the AVMA website at

<https://www.avma.org/KB/Resources/Reference/Pages/Canine-Influenza-Backgrounder.aspx>

- Personal protective equipment including gown and gloves at a minimum should be worn when handling ill animals, as well as a surgical or full face mask. For coughing or sneezing cats, or when performing a nasal or oropharyngeal swab, use goggles if using a surgical mask. Clothing (including shoes), equipment, surfaces and hands should be cleaned and disinfected after exposure to cats showing signs of respiratory disease.
- Isolation protocols should be rigorously applied for cats showing clinical signs of respiratory disease. Cats that are exhibiting clinical signs consistent with respiratory disease should be kept outside of the waiting room until they can be triaged and brought into an isolated receiving area that is immediately disinfected when the cat is discharged.
- Clean and disinfect all animal cages, floors, surfaces, food and water bowls, and other objects in contact with animals daily. Influenza viruses are killed by disinfectants (e.g., quaternary ammonium compounds, bleach solutions at a 1 to 32 dilution, or potassium peroxydisulfate) commonly used in veterinary clinics, boarding facilities, and animal shelters.
- Veterinarians and staff should institute infection control practices to avoid inadvertent spreading of the virus on contaminated clothing, shoes, and other fomites, including the wearing of disposable gloves by persons handling infected cats or cleaning contaminated cages. Employees should wash their hands with soap and water (or use an alcohol-based hand cleaner if soap and water are unavailable) before and after handling each cat, after coming into contact with a cat's saliva, urine, feces, or blood, after cleaning cages, and upon arriving and before leaving the facility.
- For more information veterinarians can call the NYC Health Department's Provider Access Line at 866-692-3641 during regular business hours.

As always, we greatly appreciate your partnership and cooperation.

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Zoonotic, Influenza and Vector Borne Disease Unit

Bureau of Communicable Disease