



NEW YORK CITY DEPARTMENT OF

HEALTH AND MENTAL HYGIENE

Mary T. Bassett, MD, MPH *Commissioner*

**2016 Veterinary Advisory # 1:
Influenza A, H7N2 Identified in Cats from
Animal Care Centers of New York City Facility in Manhattan**

- **Cats from a Manhattan Animal Care Center shelter tested positive for Influenza A, H7N2.**
- **This influenza virus has never before been seen in cats.**
- **Influenza A testing available at the Cornell Animal Health Diagnostic Center.**
Please share with your colleagues in Veterinary Medicine and your staff

December 16, 2016

Dear Veterinary Colleagues,

Over 40 cats from the Animal Care Centers of New York City (ACC) facility in Manhattan have tested positive for low pathogenic avian influenza A, H7N2 (LPAI). Testing was done by the University of Wisconsin-Madison School of Veterinary Medicine and confirmed by USDA's National Veterinary Diagnostic Services Laboratory. This virus is different from the seasonal influenza viruses that circulate among people and is normally found in birds. Feline infections with any type of avian influenza have been documented, but this is the first report of H7N2 being identified in cats.

It is not known how these cats became infected with the virus. Testing among the dogs in the shelter has been negative, suggesting they are not susceptible. Because this virus is being recognized in cats for the first time, there is no information about the clinical course of this virus, duration of shedding, and transmissibility in felines. All of the cats have been symptomatic with a respiratory illness consisting of any of the following signs: lethargy, anorexia, nasal discharge, ocular discharge, and sneezing. Most cats had mild illness though some had moderate illness and one cat with severe pneumonia was humanely euthanized. At this time, there is no evidence that H7N2 is circulating in pets outside of the shelter. If H7N2 is identified outside of the shelter, additional notification will be made to inform the veterinary community.

Veterinarians are encouraged to identify in advance persons who are making an appointment for any cat recently adopted from an ACC facility that has respiratory illness. 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 the Manhattan 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.

No human infections with these LPAI H7N2 viruses have been detected in association with these infections in cats at this time. However, two human infections associated with H7N2 have been reported in the United States in the past, one in 2002 in Virginia and another in 2003 in New York.¹ In research settings, ferrets were found to be susceptible to infection, but with limited secondary transmission. While there is no evidence of cat to human transmission, the Health Department is currently evaluating ACC staff, ACC volunteers, and persons who recently acquired cats from the Manhattan shelter to assess this potential risk.

Diagnostic Information

Testing may be indicated for any cat recently adopted from the Manhattan ACC shelter which develops a respiratory illness within 10 days of exiting the shelter. 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.

For cats meeting these criteria, use a nylon or Dacron swab, 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. 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. We hope to be able to make this assay available to evaluate exposure to H7N2 virus for cats that were adopted from ACC after November 12, 2016 and developed respiratory disease but have 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 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.

- 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.
- Isolation protocols should be rigorously applied for all cats showing signs of respiratory disease.
- 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 peroxymonosulfate) 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 dogs 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 dog, 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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References

1. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5325a1.htm>