2016 DOHMH Health Alert #52: Update on Avian Influenza A H7N2 Infection in Cats in NYC Shelters

- Additional cats from the New York City Animal Care Center (ACC) system have tested positive for avian Influenza A H7N2.
- Single mild human infection confirmed in person with close, prolonged exposure to the respiratory secretions of ill cats at ACC in absence of respiratory personal protective equipment.
- The risk of cat-to-human transmission remains low and there is no evidence of human-to-human transmission.
- Providers should ask patients with severe respiratory illness about recent cat adoption or work in a NYC animal shelter and call the Health Department (1-866-692-3641) as directed below.

December 22, 2016

Dear Medical Colleagues,

In response to the identification of an outbreak of avian influenza A H7N2 (“H7N2”) among cats in the New York City Animal Care Center (ACC) shelters, the New York City Health Department has been conducting an investigation to ascertain the risk of H7N2 transmission to humans. The investigation efforts focused on persons who were in close contact with cats from the Manhattan ACC, the epicenter of the cat outbreak, as well as persons who adopted cats from the shelter between November 12 and December 15, 2016.

As of today, over 100 cats from the Manhattan, Brooklyn and Staten Island ACC shelters were found to be infected with H7N2 virus. To control the outbreak and prevent further spread, cat adoptions were discontinued by ACC 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.

Outbreak Investigation among Exposed Individuals

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 the ACC shelter in the absence of respiratory personal protective equipment. 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. Of the previous two infections, one was in an individual managing an outbreak of the virus in turkeys and chickens in 2002 and the other in an individual with an unknown source in 2003. Both of these patients also had mild illness and recovered.

This finding is not unexpected, and supports what has already been communicated; the risk of transmission of H7N2 virus is thought to be low. Human testing was performed on a cohort of persons with ongoing exposure to cats infected with H7N2 virus, and all but one tested negative. There is no evidence of human-to-human transmission of H7N2 virus.

**Evaluating Patients for Possible H7N2 Virus Exposure**

At this time, NYC is experiencing an expected increase in respiratory illness among humans due to seasonal influenza virus (mostly H3N2) and other respiratory pathogens. Persons who develop an influenza-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.

Although the risk for H7N2 infection in humans is thought to be low, the Health Department is asking healthcare providers in NYC to be alert for possible infections. Providers should ask patients who present with respiratory illness about recent cat adoption or work in an animal shelter and conduct testing for respiratory viruses, including influenza. Individuals with suspected influenza infection, seasonal or H7N2, should be treated empirically with oseltamivir, especially those at higher risk for more severe illness or requiring hospitalization. Please immediately call the Health Department at 1-866-692-3641 if a patient is hospitalized for an acute respiratory illness and/or tests positive for influenza A that is not known to be seasonal (i.e., H3, H1) within 3 weeks of adopting a cat from any NYC shelter or rescue group or if s/he works in a NYC animal shelter. We will work with you to obtain both nasopharyngeal and oropharyngeal swabs and arrange transport to the NYC Public Health Laboratory for influenza testing, including for H7N2 virus.

**Infection Prevention and Control**

At this time, and out of an abundance of caution as this is a novel avian strain, the recommendations for managing a patient with suspected H7N2 virus infection include standard, contact and airborne precautions. If a facility does not have the capacity for airborne precautions, the patient should wear a standard surgical mask and be placed in a private room with closed doors.

The Health Department is working closely with CDC and other public health partners to learn more about the H7N2 virus. Based on the data that has been gathered, it appears that the risk of viral transmission from cats to humans is low. Please remind your patients, particularly elderly (≥ 65 years old), parents of young children (< 2 years), pregnant women, and those with underlying diseases (e.g., cancer, diabetes, chronic lung disease) or other immunocompromising conditions to avoid close contact (e.g., nuzzling or facial exposure) with sick cats and to seek
medical care early with any respiratory or influenza-like symptoms. Although the influenza vaccine does not prevent H7N2 virus infection, the Department of Health recommends vaccination to prevent the commonly circulating strains of seasonal influenza.

We will continue to keep you informed on this evolving situation. For more information, visit www.nyc.gov/health. Thank you in advance for your cooperation.

Sincerely,

Demetre C Daskalakis, MD MPH
Assistant Commissioner
Bureau of HIV/AIDS Prevention and Control

Resources
Health Department Avian Influenza: http://www1.nyc.gov/site/doh/health/health-topics/avian-flu.page
CDC Avian Influenza: https://www.cdc.gov/flu/avianflu/index.htm;
CDC Influenza Antiviral Use: http://www.cdc.gov/flu/professionals/antivirals/
CDC Seasonal Influenza Vaccination Resources: https://www.cdc.gov/flu/professionals/vaccination/