HEALTH ALERT

JB Pritzker, Governor | Sameer Vohra, MD, JD, MA, Director

Summary and Action Items

1) Provide awareness of recent detections outside of Illinois of avian influenza A(H5N1) in dairy cows and poultry flocks and two cases of avian influenza A(H5N1) in humans as of 5/28/2024 who were exposed to infected dairy cows including infection prevention, diagnostic testing, treatment, and chemoprophylaxis options.
2) Request an increase in participation in respiratory virologic surveillance throughout the summer months including:
    a. Submission of non-typed or unsubtypable influenza specimens from commercial labs to IDPH state labs.
    b. Submission of untyped influenza specimens from cases with influenza that resulted in ICU admission to IDPH labs.
    c. Continued submission of influenza positive specimens from sentinel virologic providers to IDPH labs.
    d. Additional enrollment of sentinel virologic providers.
3) Request providers consider obtaining history about potential farm, animal, or raw milk exposures in those who present with conjunctivitis, influenza-like illness and/or test positive for influenza and consider influenza testing at IDPH labs for those with exposures or associations with dairy or poultry farms, who present with conjunctivitis or influenza-like illness.

Background

A multi-state outbreak of Influenza A(H5N1) bird flu strain in dairy cows was first reported on March 25, 2024. While this is the first time that these bird flu viruses were found in cattle, an outbreak of this virus in wild birds and poultry has been occurring in the US since 2022. CDC confirmed two human Influenza A(H5N1) infections that had exposure to dairy cattle in Texas and Michigan that were presumed to be infected with the virus. While thought to be rare, this exposure to Influenza A(H5N1) bird flu virus is the first instance of likely mammal to human transmission. As of 5/28/2024, 9 states have reported outbreaks in cattle affecting 67 dairy herds. As of 5/28/24, no dairy herds in Illinois have reported testing positive for influenza A (H5N1).

The current risk to the general public from H5N1 bird flu is considered to be low but it is critically important to minimize and mitigate transmission of this strain before it can undergo genetic reassortment with more virulent and transmissible strains from other mammals or seasonal influenza.

Symptoms

Illnesses in humans from avian influenza type A virus infections have ranged in severity from no symptoms or mild illness (e.g., conjunctivitis, upper respiratory symptoms) to severe disease (e.g., pneumonia) that resulted in death. The two human cases in the US have presented with conjunctivitis as the main symptom feature.

Transmission

Human infections with avian influenza type A viruses can happen through droplet or airborne transmission, i.e., when virus gets into a person's eyes, nose or mouth, or is inhaled. The spread of avian influenza type A viruses from one infected person to a close contact is very rare, and when it has happened, it has not led to continued spread among people.

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Diagnosis

Rapid influenza diagnostic tests are not a reliable indicator of avian influenza A virus infection, and the results should not be used to guide infection control or antiviral treatment decisions. Influenza RT-PCR testing with subtyping is preferred. If timely testing through a commercial lab is not available, the test could be run at one of the IDPH laboratories with prior approval on a case-by-case basis in unique circumstances (such as influenza-like illness (ILI) outside of normal flu season and/or respiratory illness with exposure to birds, cows, pigs, or other ill mammals). Unsubtypable specimens should be forwarded to the IDPH labs for additional testing. Approval for testing must be completed by the LHD prior to sending specimens to IDPH on the Communicable Diseases Test Authorization Form. If conjunctivitis is present in a person with known exposure history (working with sick dairy cattle or poultry), conjunctival swabs should be collected and sent to IDPH labs with prior approval for testing.

Clusters of ILI in humans, sickness in dairy cows, migratory bird or cat deaths near farms should also be reported to the Local Health Department (LHD) for consultation regarding additional testing. Please refer to the IDPH Lab Manual of Services for submission guidelines and utilize the Communicable Diseases Laboratory Test Requisition when submitting specimens. Additional specimen types may be requested depending on symptoms and animal exposure status.

**Note: A negative rapid influenza diagnostic test (RIDT) result does not exclude infection with any influenza virus. A positive RIDT result for influenza A cannot specifically identify variant virus infections because these tests cannot distinguish between influenza A virus subtypes.*

Prevention

The best prevention is to avoid sources of exposure. People who have job-related contact with infected or potentially infected birds or other animals should be aware of the risk of exposure to avian influenza viruses and should take proper precautions including the use of PPE. Standard Precautions, plus Contact and Airborne Precautions, including the use of eye protection, are recommended for healthcare personnel when evaluating patients for infection with novel avian influenza A viruses, per CDC's guidance.

Treatment

Antiviral treatment should not be delayed while waiting for laboratory test results and should be provided even if it is past 48 hours from symptom onset, regardless of clinical severity. Oral or enteral Oseltamivir twice daily for 5 days is the recommended treatment.

Chemoprophylaxis

Influenza antiviral post-exposure prophylaxis may be considered to prevent infection, particularly in those who had unprotected exposure to HPAI A(H5N1)-virus infected birds or other animals. If post-exposure antiviral chemoprophylaxis is initiated, treatment dosing for the neuraminidase inhibitors oseltamivir or zanamivir (one dose twice daily) is recommended in these instances instead of the typical antiviral chemoprophylaxis regimen (once daily). Detailed dosing recommendations may be found here. Duration of chemoprophylaxis usually extends to 5 days after a defined, known exposure.

IDPH recommendations for clinicians

CDC and IDPH are encouraging increased testing and subtyping for influenza among persons with ILI and diagnosed influenza during the late spring and summer months in the following situations:

- Submission of positive influenza specimens by commercial labs that are not subtyped or unable to be subtyped to the IDPH state lab.

- Influenza testing for individuals with exposures presenting with conjunctivitis or ILI, even though influenza circulation is currently low. Clinicians should consider asking about exposure to farms, ill animals, or consumption of raw milk.
- Influenza A positive samples from patients in the ICU that are not subtyped are requested to be submitted to state or local public health laboratories for subtyping to assist with surveillance of severe respiratory disease.

CDC is also encouraging an increase in virologic surveillance. We ask that current virologic surveillance providers continue to submit positive influenza specimens to the IDPH laboratory for surveillance testing during the late spring and summer months. In addition, we encourage laboratories to consider participating in the virologic surveillance program. Sentinel virologic providers are asked to send clinical remnant samples from positive influenza specimens to the IDPH labs for additional subtyping. Shipping materials will be provided. Virologic surveillance providers are not required to submit specimen authorizations through REDCap; however, they would need to utilize ETOR (Electronic Test Ordering and Reporting Portal). To sign up as a virologic surveillance provider, contact the IDPH Communicable Disease Section, Respiratory Surveillance Program at 217-782-2016 or DPH.Respiratory@illinois.gov.

This is an important step for continued surveillance of influenza A(H5N1) in Illinois, as well as variant influenza cases, especially in the summer when influenza testing may not be as routine as it is during flu season.

Contact
Contact the IDPH Communicable Disease Section, Respiratory Surveillance Program at 217-782-2016 or your local health department with questions.

Additional Resources
Brief Summary for Clinicians: Evaluating and Managing Patients Exposed to Birds Infected with Avian Influenza A Viruses of Public Health Concern
CDC Highly Pathogenic Avian Influenza A (H5N1) Virus Infection Reported in a Person in the U.S.
CDC Highly Pathogenic Avian Influenza A(H5N1) Virus in Animals: Interim Recommendations for Prevention, Monitoring, and Public Health Investigations
IDPH Influenza, Novel (Avian and Variant) SharePoint Page

Target Audience
Local Health Departments, Infectious Disease Physicians, Hospital Emergency Departments, Infection Control Preventionists, Health Care Providers, and Laboratories

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