TOMÁS J. ARAGÓN, M.D., Dr.P.H.
State Public Health Officer & Director

State of California—Health and Human Services Agency
California Department of Public Health

GAVIN NEWSOM
Governor

Health Update

TO: Healthcare Providers
Evaluation and Testing for Human Avian Influenza A(H5N1) Infection
12/6/2024

Key Messages

- Human avian influenza A(H5N1) cases have been identified in California, including one case in a child with no known exposure to animals.
- Healthcare providers should consider avian influenza A in persons with acute respiratory symptoms and/or conjunctivitis and recent exposure to animals suspected or confirmed to have avian influenza A OR recent consumption of raw dairy products. Of note, all cases among California dairy workers have had conjunctivitis.
- Providers should immediately report any suspected human avian influenza A infections to their local health departments.
- Testing of respiratory and conjunctival specimens for avian influenza A is available at some public health laboratories and two commercial laboratories.
- Antiviral treatment is recommended for patients suspected or confirmed to have avian influenza A infection and antiviral prophylaxis is recommended for their close (e.g., household) contacts.
- Healthcare providers should follow standard, contact, and airborne precautions when caring for patients suspected of having avian influenza A infection.
- All human avian influenza A cases in the U.S. have been mild. One case of severe disease has been reported in Canada.

Situational Update

Human Cases

As of December 6, 2024, the California Department of Public Health has received reports of 32 confirmed and 1 probable case of influenza A(H5N1) infection. All but one case has been among workers at dairy farms with infected cows. All infected dairy workers had mild illness with conjunctivitis as a prominent symptom. One case occurred in a child with mild respiratory symptoms and no known animal exposure.
Nationally, 58 confirmed cases have been detected; all but two cases were in poultry or dairy workers.

The risk to the general public remains low. However, people with job-related or recreational close and prolonged exposures to infected birds, cows, or other animals are at higher risk of infection.

Animal Cases

As of December 6, 2024, avian influenza A has been detected in over 700 U.S. dairy herds in 15 states since March 2024. In California, 504 dairy herds have been infected since August 2024. Recently, the first raw dairy farm was infected leading to recall of their unpasteurized raw milk products.

Since the start of the outbreak in February 2022, avian influenza A has been detected in 1,264 commercial and backyard poultry flocks in 49 states. In California, 76 infected commercial and 32 backyard flocks have been infected.

Recommendations for Healthcare Providers

Consider Avian Influenza Infection

Healthcare providers should consider the possibility of avian influenza A virus infection in a patient with:

- Signs and symptoms consistent with acute respiratory tract infection and/or conjunctivitis;* AND
- A history of exposure in the last 10 days to animals suspected or confirmed to have avian influenza A, or who have had exposure to raw milk.

If you encounter patients who work with infected animals, please encourage them to use personal protective equipment (PPE) and suggest they receive seasonal influenza vaccine during influenza season.

*If exposure was consumption of raw dairy products, and only gastrointestinal symptoms are present, interim recommendations are to test as below.

Specimen Collection and Testing

- Healthcare providers who suspect avian influenza A virus infection should immediately reach out to their local health department (LHD). The LHD can help determine if testing is warranted, recommend appropriate specimens to collect based on symptomatology, and coordinate testing at a public health or commercial laboratory that can perform H5 subtyping (if appropriate).*
- Influenza testing at clinical or commercial laboratories can detect influenza A, but hemagglutinin subtyping must be done to detect avian influenza A virus (or rule it out by detecting H3 or H1 influenza A) in an influenza A positive specimen.
    - When concern for detecting avian influenza A infection is high, testing should be sent to a public health laboratory for timely public health response (e.g., symptomatic farm workers exposed to infected animals or symptomatic persons exposed to a confirmed human case).
        - Commercial PCR tests for influenza can be used to rule out influenza A (and therefore H5N1) infection in symptomatic people less likely to be infected with avian influenza A (e.g., symptomatic people with limited animal exposure, or no known exposure to infected animals or humans).
        - Testing at a commercial laboratory offering testing for avian influenza A H5 subtyping can also be ordered for low suspicion patients.
- Specimens should ideally be collected within 24–72 hours of symptom onset and no later than 10 days after symptom onset.
    - Respiratory specimens for submission to a public health laboratory*
        - Separate oropharyngeal and anterior nares swabs are preferred (combining both swabs into a single transport media tube is also acceptable).

        - Nasopharyngeal swabs are acceptable, but to date have had a lower yield for positive test results in cases than oropharyngeal or anterior nares swabs.
    - A conjunctival swab should also be collected from anyone experiencing conjunctivitis, and has the highest yield for detection in cases to date.
        - If both eyes are affected, each eye should be swabbed with a separate swab but both swabs should be placed in a single transport media tube.
        - Conjunctival swabs MUST be paired with oropharyngeal and anterior nares swab specimens or a nasopharyngeal swab specimen, even if the person does not have respiratory symptoms.
    - If the symptomatic person consumed raw dairy products and has gastrointestinal symptoms (with or without respiratory symptoms), stool should also be collected, if possible, and held for potential testing for enteric pathogens, as well as testing for influenza A if it becomes available.
    - Specimens should be collected using swabs with synthetic tips (e.g., polyester or Dacron®) and an aluminum or plastic shaft.
        - Swabs with cotton tips and wooden shafts are NOT recommended.
        - Specimens collected with swabs made of calcium alginate are NOT acceptable.
- Swabs should be placed in specimen collection vials containing 2–3ml of viral transport media (VTM) or universal transport media (UTM).
- Specimens should be refrigerated or frozen after collection. Refrigerated specimens should be transported to the public health lab on cold packs. Frozen specimens should be transported on dry ice.
- For further information about laboratory testing for influenza A(H5), please contact the laboratory that will be conducting testing as specific requirements for acceptable specimens at each laboratory vary.
- For further information about laboratory testing for influenza A(H5) at the CDPH state laboratory, please refer to the CDPH Viral and Rickettsial Disease Laboratory (VRDL) website, email questions to VRDL.submittal@cdph.ca.gov, or call the VRDL at 510-307-8585 (M-F, 9am – 5pm Pacific Time, excluding holidays).

*Commercial laboratories may have different specimen submission recommendations for H5 subtyping than public health laboratories.

Treatment

- Healthcare providers who suspect influenza A(H5N1) virus infection should refer to the CDC's Interim Guidance on the Use of Antiviral Medications for Treatment of Human Infections with Novel Influenza A Viruses Associated with Severe Human Disease and the CDC Emergency Use Instructions for Oseltamivir.
- Antiviral treatment is recommended as soon as possible for patients with suspected or confirmed influenza A(H5N1) virus infection. Antiviral treatment should not be delayed while waiting for laboratory test results.
- The standard treatment dose of oseltamivir is 75 mg twice daily for 5 days for adults.
    - Dosage adjustment is needed for children, infants, neonates and for adult patients with renal impairment.

- Oseltamivir is not recommended for people with end-stage renal disease who are not receiving dialysis.
- Pending further data, longer courses of treatment (e.g., 10 days) should be considered for severely ill hospitalized patients with novel influenza A virus infections. For additional information, please see the Emergency Use Instructions (EUI) Fact Sheet for Healthcare Providers.

Chemoprophylaxis

- Chemoprophylaxis dosing for avian influenza A is the same as treatment dosing: 75 mg twice daily for adults for 5 days if there has been a time-limited exposure OR 10 days if exposure is ongoing.
    - Dosage adjustment is needed for children, infants, neonates and adult patients with renal impairment.
- Prophylaxis is recommended for household contacts of confirmed cases and can be considered in workers to infected or potentially infected cows who have had an unprotected discrete high-risk exposure such as a milk splash to the eye.
    - Consideration for prophylaxis should be based on clinical and public health considerations such as type and duration of exposure, time-course, infection status of animal or human exposure and if person is at increased risk for complications with seasonal influenza.

Healthcare Infection and Prevention Control

- If a case is suspected, immediately mask the patient and place them in an airborne infection isolation room (AIIR) with the door closed. While in an AIIR, the patient's mask may be removed.
- If an AIIR is not available, place the patient in a single-patient room with the door closed and have the patient remain masked.
- Use personal protective equipment that includes:
    - Respiratory protection (fit-tested N95 respirator or higher level of protection).
    - Eye protection (goggles or face shield).
    - Gown and gloves.
- Use diligent hand hygiene before and after contact with the patient.
- Limit room entry to essential personnel. Limit transport of patient outside their room.
- If a non-AIIR room is used, after the patient leaves, the room should not be reused and unprotected individuals should not enter until sufficient time has elapsed for enough air changes to remove potentially infectious particles, per CDC guidance. For example, in a patient-care area with 6 air exchanges per hour, the time to removal of airborne contaminants with 99.9% efficiency is 69 minutes.

For additional infection control recommendations, see CDC Interim Guidance for Infection Control Within Healthcare Settings When Caring for Confirmed Cases, Probable Cases, and Cases Under Investigation for Infection with Novel Influenza A Viruses Associated with Severe Disease.

For applicable Cal/OSHA requirements in healthcare settings, please see California's Aerosol Transmissible Disease standard.

Resources

- CDPH Bird Flu webpage
- CDPH Avian Influenza A(H5N1) Information for Healthcare Providers
- CDPH Bird Flu Communications Toolkit
- CDPH Novel Influenza webpage
- CDPH Human Avian Influenza A(H5N1) Quicksheet
- CDPH Viral and Rickettsial Disease Laboratory – Novel/Avian Influenza Virus
- CDPH Worker Protection from the Bird Flu
- CDC Interim Guidance on the Use of Antiviral Medications for Treatment of Human Infections with Novel Influenza A Viruses Associated with Severe Human Disease
- CDC Interim Guidance for Infection Control Within Healthcare Settings When Caring for Confirmed Cases, Probable Cases, and Cases Under Investigation for Infection with Novel Influenza A Viruses Associated with Severe Disease

California Department of Public Health
PO Box, 997377, MS 0500, Sacramento, CA 95899-7377
Department Website (cdph.ca.gov)

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