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## Health Advisory

May 1, 2013 (Revised from April 12, 2013)

### Human Infections with Avian Influenza A: H7N9

The U.S. Centers for Disease Control & Prevention (CDC) has updated its interim guidance:

**Antiviral Treatment:** Due to the potential severity of illness associated with Avian Influenza A:H7N9 virus infection, CDC now recommends that all confirmed, probable, and suspect cases of Avian Influenza A:H7N9, including outpatients with uncomplicated illness, be treated with neuraminidase inhibitors as early as possible, without waiting for laboratory confirmation of influenza before initiating treatment.

**Infection Control Guidance** has been updated; Droplet precautions are no longer recommended but Standard, Contact and Airborne precautions should be implemented by health care personnel; suggestions are provided for clinics unable to fully implement Airborne Precautions.

**Case Definitions:** A definition for Suspect cases (Cases Under investigation) has been added, defining Suspect as patients with influenza-like illness (ILI<sup>1</sup>) with:

- Recent contact (within ≤ 10 days of illness onset) with a confirmed or probable case of infection with Avian Influenza A:H7N9 virus; **OR**
- Recent travel (within ≤ 10 days of illness onset) to a country where human cases of Avian Influenza A:H7N9 virus have been recently detected or where Avian Influenza A:H7N9 viruses are known to be circulating in animals. (*As of 4/29/13, those countries are China and Taiwan*).

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#### **SITUATION:**

As of April 29, 2013, World Health Organization (WHO) reports a total of 126 laboratory-confirmed cases of human infection with avian influenza A(H7N9) virus from multiple jurisdictions in China. In addition, Taiwan authorities report one human case in a Taiwanese citizen with documented travel to China. Among the 63 cases reported from 3/31 through 4/16, the median age was 64 years, and 71% of patients were male. New cases continue to be reported and case counts are likely to increase. No ongoing person-to-person transmission has been identified; investigations by Chinese public health officials are ongoing. Preliminary data suggest the virus is susceptible to neuraminidase inhibitors. At this time, no cases of human infection with Avian Influenza A:H7N9 have been reported in the United States.

CDC does not recommend restricting travel to China, and is repeating its standard advice to travelers and Americans living in China to follow good hand hygiene and food safety practices and to avoid contact with animals. (See further recommendations at: <http://wwwnc.cdc.gov/travel/notices/watch/avian-flu-h7n9-china.htm>.)

#### **ACTIONS REQUESTED OF CLINICIANS:**

1. IMPLEMENT Standard, Contact and Airborne Precautions<sup>2</sup>, including eye protection and respirators, for healthcare personnel caring for patients meeting criteria for a Suspect case of Avian influenza A:H7N9.

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<sup>1</sup> ILI is defined as fever (Temperature of 100°F (37.8°C) or greater and cough and/or sore throat

<sup>2</sup> [www.cdc.gov/HAI/settings/outpatient/basic-infection-control-prevention-plan-2011/transmission-based-precautions.html](http://www.cdc.gov/HAI/settings/outpatient/basic-infection-control-prevention-plan-2011/transmission-based-precautions.html)

Place a surgical mask on the patient to reduce spread of respiratory secretions and have the patient avoid public settings (e.g. public transportation). Aerosol-generating procedures should be performed only if they are medically necessary and cannot be postponed.

2. REPORT suspected Avian influenza A:H7N9 in patients who meet the criteria described in the case definition for case under investigation (CUI). Call the SFDPH Communicable Disease Control Unit at (415) 554-2830; after hours, weekends and holidays press “1” and “1” again to page the on call physician.
3. COLLECT specimens for testing and, after obtaining approval from SFDPH Communicable Disease Control, send specimens to SFDPH Public Health Laboratory per instructions below.
4. TREAT empirically with neuraminidase influenza antiviral medications (oral oseltamivir or inhaled zanamivir) as soon as possible, without waiting for laboratory confirmation in all patients who meet the case definition for case under investigation, including outpatients with uncomplicated illness.
5. CONSULT an infectious disease specialist and/or the CDC webpage<sup>3</sup> for updated information

### **INFECTION CONTROL RECOMMENDATIONS:**

CDC has issued interim guidance for influenza A:H7N9 infection control precautions<sup>4</sup>. Healthcare personnel providing care for patients with Confirmed, Probable, and Suspect Avian Influenza A: H7N9 infection should use Standard Precautions, including eye protection, plus Contact and Airborne Precautions. Aerosol-generating procedures should be performed on such patients only if they are medically necessary and cannot be postponed. Place a surgical mask on the patient to reduce spread of respiratory secretions and have the patient avoid public settings (e.g. public transportation). These recommendations are more stringent than the infection control precautions used routinely for seasonal influenza because there is currently:

- No H7N9 vaccine
- A suspected high rate of morbidity and mortality among infected patients
- An unknown potential for person to person transmission
- An absence of confirmed or probable H7N9 cases in the United States

**For clinics unable to implement all elements of airborne precautions** (i.e., placing patient in an airborne infection isolation room), all possible precautions should be taken, including the following<sup>5</sup>:

- Receptionists and phone triage personnel should ask all patients with ILI if they have had travel to China or other country where cases have been reported within  $\leq 10$  days of symptom onset.
- Patients with ILI and a history of travel to a country where cases have been reported should be seen at the end of the day or when fewer people are in the clinic, if possible.
- Such patients should wear a surgical mask upon entering the clinic, be placed immediately in a room with a door that closes, and not remain in waiting areas.

### **EXPOSURE & TESTING CRITERIA**

Avian Influenza A:H7N9 testing by the Public Health Laboratory will be considered for patients who have ILI and one of the following exposures:

1. Recent travel (within  $\leq 10$  days of illness onset) to a country where human cases of Avian Influenza A:H7N9 infection have recently been detected (currently China and Taiwan), especially if there was recent direct or close contact with animals (such as wild birds, poultry, or pigs) or where Avian Influenza A:H7N9 viruses are known to be circulating in animals. Updated case report information is available on the WHO website<sup>6</sup>.

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<sup>3</sup> [www.cdc.gov/flu/avianflu/h7n9-virus.htm](http://www.cdc.gov/flu/avianflu/h7n9-virus.htm)

<sup>4</sup> [www.cdc.gov/flu/avianflu/h7n9-infection-control.htm](http://www.cdc.gov/flu/avianflu/h7n9-infection-control.htm)

<sup>5</sup> [www.cdph.ca.gov/certlic/facilities/Documents/AFL13-09.pdf](http://www.cdph.ca.gov/certlic/facilities/Documents/AFL13-09.pdf)

<sup>6</sup> [www.who.int/csr/don/en/index.html](http://www.who.int/csr/don/en/index.html)

2. Recent contact (within  $\leq 10$  days of illness onset) with a confirmed or probable human case of infection with Avian Influenza A:H7N9 virus.

Testing may be prioritized for patients whose exposures were within 10 days of illness onset and/or patients with severe respiratory illness, such as radiographically confirmed pneumonia or Acute Respiratory Distress Syndrome of unknown etiology.

### **SPECIMEN COLLECTION AND ROUTING**

Obtain a nasopharyngeal swab or nasal aspirate, using the infection control precautions described above. Place in viral transport medium that has been kept refrigerated at 2-8 degrees Celsius and ensure that the specimen is promptly refrigerated and maintained at this temperature. Call the San Francisco Department of Public Health, Communicable Disease Control Unit at (415) 554-2830; after hours, weekends and holidays press “1” and “1” again to page the on call physician for consultation and approval before sending specimens to the Public Health Laboratory. Specimen collection guidelines and submission form are available at <http://www.sfdcp.org/influenzareporting.html>

Viral culture of these specimens should not be attempted by local laboratories. Specimens should be transported at 2-8 degrees Celsius to the San Francisco Public Health Laboratory for testing and subtyping

### **FOR MORE INFORMATION**

Since only a few cases have been confirmed, information about this disease may be changing. Please check the following websites as new information becomes available.

- CDC Avian Influenza A (H7N9) information page: [cdc.gov/flu/avianflu/h7n9-virus.htm](http://cdc.gov/flu/avianflu/h7n9-virus.htm)
- CDC Health Advisory, Human Infections with Novel Influenza A (H7N9) Virus: [emergency.cdc.gov/HAN/han00344.asp](http://emergency.cdc.gov/HAN/han00344.asp)
- WHO Global Alert and Response page: [who.int/csr/don/en/index.html](http://who.int/csr/don/en/index.html)
- SFDPH:
  - Health Alerts page: [sfdcp.org/healthalerts](http://sfdcp.org/healthalerts)
  - Communicable Disease Control & Prevention home page: [sfdcp.org](http://sfdcp.org)