Public Health Update

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Human Infections with Novel Influenza A (H7N9)

Situation: As of April 7, 2013, Chinese public health officials have reported to the World Health Organization (WHO) a total of 21 human cases of laboratory-confirmed avian influenza A (H7N9) in China, including six deaths, 12 cases with severe respiratory illness, and three mild cases. These are the first known human infections with this influenza strain. Twenty cases have occurred in adults aged 27-87 years and one case occurred in a child aged 4 years. Dates of illness onset ranged from February 19 to March 29, 2013. No person-to-person transmission or epidemiologic link between the cases has been identified. Investigations by Chinese public health officials are ongoing. Preliminary data from the viruses isolated from the first three cases suggest that they are susceptible to neuraminidase inhibitors. At this time, no cases of human infection with novel influenza A (H7N9) have been detected in the United States.

Actions Requested of Clinicians

1. Report and consider testing for suspected novel influenza A (H7N9) in patients who meet the exposure criteria described below. Call Marin County Communicable Diseases Prevention Team at (415) 473-7805 or (415) 473-3038 Monday through Friday, 8:30am to 5:00pm and at (415) 415) 473-9464 in the evenings and on weekends for consultation and approval before sending specimens to the Marin County Public Health Laboratory (920 Grand Avenue, San Rafael, CA). After hours and weekend calls will go to the Communication Center where you ask for the public health officer on call. For laboratory assistance, please call (415) 473-6849 during weekday business hours.

2. Implement standard, droplet, contact and airborne precautions, including eye protection, for healthcare personnel caring for patients under investigation for novel influenza (H7N9) until more is known about the transmission characteristics of this virus.

3. Consider empiric treatment with influenza antiviral medications (oral oseltamivir or inhaled zanamivir) as soon as possible, without waiting for laboratory confirmation.

4. Consult an infectious disease specialist and/or the CDC webpage for clinical information: http://www.cdc.gov/flu/avianflu/h7n9-virus.htm
EXPOSURE & TESTING CRITERIA

Novel influenza A (H7N9) testing by public health reference laboratories will be considered for patients who have an illness compatible with influenza (i.e., acute onset of fever and cough) who have the following exposures:

1. Recent travel to countries where human cases of novel influenza A (H7N9) infection have recently been detected, especially if there was recent direct or close contact with animals (such as wild birds, poultry, or pigs) or where influenza A (H7N9) viruses are known to be circulating in animals. Currently, China is the only country that has recently reported novel influenza A (H7N9) human cases.

2. Recent contact with confirmed human cases of infection with novel 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 aspirate, using Standard, Droplet, Contact and Airborne Precautions, including eye protection. 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 Marin County Communicable Diseases Prevention Team at (415) 473-7805 or (415) 473-3038 Monday through Friday, 8:30am to 5:00pm and at (415) 473-9464 in the evenings and on weekends for consultation and approval before sending specimens to the Marin County Public Health Laboratory (920 Grand Avenue, San Rafael, CA). Viral culture should not be attempted in these cases. Specimens should be transported at 2-8 degrees Celsius to the Public Health Laboratory and will be screened by the California Department of Public Health Viral and Rickettsial Diseases Laboratory (CDPH-VRDL). CDPH-VRDL will forward suspect novel influenza A (H7N9) specimens to the Centers for Disease Control and Prevention (CDC) for confirmatory testing.

FORM MORE INFORMATION

- CDC Avian Influenza A (H7N9) information page: [http://www.cdc.gov/flu/avianflu/h7n9-virus.htm](http://www.cdc.gov/flu/avianflu/h7n9-virus.htm)
- CDC Health Advisory, Human Infections with Novel Influenza A (H7N9) Virus: [http://emergency.cdc.gov/HAN/han00344.asp](http://emergency.cdc.gov/HAN/han00344.asp)