



SAN MATEO COUNTY
HEALTH SYSTEM

COMMUNICABLE DISEASE CONTROL PROGRAM

Main number 650-573-2346 ♦ fax 650-573-2919 ♦ after-hours emergency line 650-363-4981

Public Health Advisory

April 17, 2013

Human Infections with Novel Influenza A (H7N9)

SITUATION:

On April 1, 2013, the World Health Organization (WHO) reported three human infections with a novel influenza A (H7N9) virus in China. These are the first known human infections with this avian influenza strain. The virus has also been detected in birds from poultry markets in China. As of April 12, 2013, a total of 43 human cases have been reported. Cases have been reported in Shanghai (20) and three surrounding provinces in eastern China: Jiangsu (12), Zhejiang (9) and Anhui (2). Most cases had severe respiratory illness, and 11 died. Dates of illness onset ranged from February 19 to April 8, 2013. New cases continue to be reported and case counts are likely to increase. Updates are available at the WHO website: <http://www.who.int/csr/don/en/>. At this time, no human cases of novel influenza A (H7N9) have been detected outside of China. While investigations are ongoing, no person-to-person transmission or epidemiologic link between any of the cases has been identified thus far.

Currently, the US Centers for Disease Control and Prevention (CDC) does not recommend any travel restrictions to China. CDC is repeating its standard advice to travelers and Americans living in China to follow proper hand hygiene and food safety practices, and to avoid contact with animals. Additional recommendations regarding international travel issues can be found at the CDC's travel website: www.cdc.gov/travel/notices/watch/avian-flu-h7n9-china.htm.

With the large volume of international travel between California and China, suspect cases of novel influenza A (H7N9) are likely to occur in California and the San Mateo County Communicable Disease Control Program is therefore emphasizing the following:

ACTIONS REQUESTED OF CLINICIANS:

1. REPORT and CONSIDER TESTING for suspect novel influenza A (H7N9) patients who meet the exposure criteria described below. Contact the San Mateo County Communicable Disease Control Program at (650) 573-2346, Monday through Friday, 8:00 am to 5:00 pm, and at (650) 363-4981 after hours, weekends and holidays, for consultation and approval BEFORE submitting specimens to the San Mateo County Public Health Laboratory.
2. IMPLEMENT Standard, Droplet, Contact and Airborne Precautions as described below, for all healthcare personnel caring for patients suspected of being infected with H7N9 until more is known about the transmission characteristics of this virus.
3. Consider empiric TREATMENT with antiviral medications as soon as possible for all persons who meet the criteria described below, 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:

Clinicians should consider the possibility of novel influenza A (H7N9) virus infection in persons who present with respiratory illness compatible with influenza within 10 days of the following exposures:

- (i.) Recent travel to countries where human cases of novel influenza A (H7N9) virus 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.
- (ii.) Recent contact with confirmed human cases of infection with novel influenza A (H7N9) virus.

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 the San Mateo County Communicable Disease Control Program for consultation and approval before sending specimens to the Public Health Laboratory. Viral culture of these specimens should not be attempted by local laboratories. Specimens should be transported at 2-8 degrees Celsius to the San Mateo County Public Health Laboratory for preliminary testing regardless of the on-site rapid influenza testing results. If positive for Influenza A testing by reverse transcription polymerase chain reaction (RT-PCR) but unsubtypeable, specimens would be considered highly suspect for novel influenza A (H7N9) and would be screened by the California Department of Public Health, Viral and Rickettsial Diseases Laboratory (CDPH-VRDL). CDPH-VRDL will forward specimens to the CDC for confirmatory testing.

INFECTION CONTROL PRECAUTIONS:

Healthcare personnel (HCP) caring for patients under investigation for novel influenza A (H7N9) should adhere to Standard Precautions plus Droplet, Contact, and Airborne Precautions, including eye protection, until more is known about the transmission characteristics of the virus. All clusters of respiratory illness in HCP caring for patients with severe acute respiratory illness should be reported to San Mateo County Communicable Disease Control and will be promptly investigated.

VACCINATION & ANTIVIRAL GUIDANCE:

At this time, no vaccine for novel influenza A (H7N9) is available. Preliminary data suggest that the virus is susceptible to neuraminidase inhibitors. Antiviral treatment is most effective when started as soon as possible after illness onset. Clinicians should start empiric treatment with influenza antiviral medications (oral oseltamivir or inhaled zanamivir) as soon as possible, without waiting for laboratory confirmation, on the following individuals:

- (i.) Persons hospitalized with suspected influenza, including suspected novel influenza A (H7N9) infection
- (ii.) Persons at high risk for developing flu-related complications, including children younger than 5, adults 65 years of age and older, pregnant women, and those with certain underlying medical conditions

Additional information on novel influenza A (H7N9) is available at the following websites:

- WHO Situation Updates: <http://www.who.int/csr/don/en/>
- CDC Health Advisory (April 5, 2013): <http://emergency.cdc.gov/HAN/han00344.asp>
- CDC avian influenza A (H7N9) information page: <http://www.cdc.gov/flu/avianflu/h7n9-virus.htm>
- CDC interim guidance for infection control: <http://www.cdc.gov/flu/avianflu/h7n9-infection-control.htm>

The Communicable Disease Program is available to help meet the reporting needs of, and answer questions for, San Mateo County providers. To report a disease or outbreak, please call 650-573-2346 Monday through Friday, 8:00 am to 5:00 pm, or fax a Confidential Morbidity Report (CMR) to 650-573-2919. You may download an electronic copy of the CMR at http://smhealth.org/sites/default/files/docs/PHS/cmr_cd_std.pdf. Web-based reporting via CalREDIE is also available. Please contact us if you would like to know more about, and sign up for, web-based reporting. Non-urgent questions and/or general inquiries may be directed to PH_CDControlUnit@smcgov.org.

Categories of urgency levels:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides information regarding an incident or situation; unlikely to require immediate attention