City and County of San Francisco

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SEASONAL & AVIAN INFLUENZA HEALTH ADVISORY
November 30, 2006

This Advisory provides information about 2006-07 influenza surveillance, testing, vaccine availability, treatment and prophylaxis, infection control, and avian influenza preparedness. This advisory and additional influenza information are posted on the SFDPH website: www.sfdph.org/cdcp - click on health alerts link.

ACTIONS REQUESTED OF ALL CLINICIANS

1. Report laboratory-confirmed cases of seasonal influenza and suspected cases of avian influenza (H5N1) that *meet the criteria* described below to Disease Control at (415) 554-2830
2. Test symptomatic individuals living in large group or institutional settings in San Francisco.
3. Encourage influenza and/or pneumococcal vaccination.
4. Consider treatment and chemoprophylaxis of seasonal influenza with oseltamivir or zanamivir.
5. Implement appropriate infection control in hospitals and clinics, and encourage respiratory etiquette among your staff and patients.

INFLUENZA SURVEILLANCE/REPORTING

Report cases in the following priority groups to SFDPH Disease Control at (415) 554-2830 within 24 hours:

1. **Residents of large group or institutional settings (e.g. long-term care, rehabilitation, or assisted living facilities) in San Francisco**
   We will investigate reported cases and work with local institutions to prevent and interrupt transmission of respiratory outbreaks that meet the following criteria:
   - Confirmed cases of influenza, **OR**
   - Outbreaks of undiagnosed febrile respiratory illness

2. **Pediatric Patients**
   - Lab confirmed, influenza-related deaths in children 0-17 years, **OR**
   - Lab confirmed, influenza cases in children 0-17 years who have been hospitalized in the ICU and have a clinical syndrome consistent with influenza or its complications, including lower respiratory tract infection, acute respiratory distress syndrome, apnea, cardiopulmonary arrest, myocarditis, Reye syndrome, or acute CNS syndrome.

   This year the California Department of Health Services (DHS) would like to obtain clinical specimens on these pediatric cases for culture and strain typing. This will help us to determine if there are emerging strains circulating locally that are causing unusual morbidity and mortality in this population.

3. **Individuals with possible exposure to Avian Influenza A (H5N1)** **Report these cases immediately.**
   There is currently no transmission of avian influenza to humans in the US. However, if you suspect avian influenza immediately call SFDPH Disease Control at (415) 554-2830 to determine the need for testing.

   Consider Avian Influenza A (H5N1) testing *year round* for patients meeting all of the following:
   - Requires hospitalization or is fatal; **AND**
   - Has or had a documented temperature of ≥38°C (≥100.4° F); **AND**
   - Has radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established; **AND**
   - Has at least one of the following potential exposures (A, B, or C) within 10 days of symptom onset:

A. History of travel to a country with influenza H5N1 documented in poultry, wild birds, and/or humans, **AND** had at least one of the following potential exposures (1-5) during travel:
    1. Direct contact with (e.g., touching) sick or dead domestic poultry;
    2. Direct contact with surfaces contaminated with poultry feces;
    3. Consumption of raw or incompletely cooked poultry or poultry products;
    4. Direct contact with sick or dead wild birds suspected or confirmed to have influenza H5N1;
    5. Close contact (within 1 meter [approx. 3 feet]) of a person who was hospitalized or died due to a severe unexplained respiratory illness;
B. Close contact (within 1 meter [approx. 3 feet]) of an ill patient with confirmed or suspected H5N1;
C. Worked with live influenza H5N1 virus in a laboratory.

Testing Patients for Avian Influenza A (H5N1) Who Do Not Meet the Suspect Case Definition

Testing for avian influenza A (H5N1) virus infection can be considered on a case-by-case basis for:

•A patient with mild or atypical disease* (hospitalized or ambulatory) who has one of the exposures listed above (criteria A, B, or C); OR

•A patient with severe or fatal respiratory disease whose epidemiological information is uncertain, unavailable, or otherwise suspicious but does not meet the criteria above (examples include: a returned traveler from an influenza H5N1-affected country whose exposures are unclear or suspicious, a person who had contact with sick or well-appearing poultry, etc.)

*For example, a patient with respiratory illness and fever who does not require hospitalization, or a patient with significant neurologic or gastrointestinal symptoms in the absence of respiratory disease.

For Case Report Forms, laboratory guidelines, and other reference materials see: www.sfdph.org/CDcontrol.

SPECIMEN TESTING/COLLECTION AND SUBMISSION

The results of rapid diagnostic tests for influenza may help in selecting appropriate antiviral therapy, avoiding inappropriate antibiotic therapy, determining if influenza is the cause of a respiratory illness outbreak, and promptly starting measures to decrease the spread of disease. Point-of-service rapid antigen tests will guide most acute care decisions. However, for residents of large group or institutional settings, for suspect cases of avian influenza and on a case-by-case basis SFDPH can test for influenza virus A, including subtypes H1, H3 and H5N1, and influenza B by Polymerase Chain Reaction (PCR) and a panel of other viral respiratory pathogens using culture and antigen detection methods. Submission of respiratory specimens for testing to the San Francisco Public Health Laboratory **must** be coordinated through SFDPH Disease Control (415-554-2830).

Seasonal Influenza Testing for Residents of Institutional Settings during an Epidemiologic Investigation. Acceptable specimens for testing include nasopharyngeal swabs, pharyngeal swabs or nasal washes.

Culture and strain typing on pediatric patients. These tests are important for epidemiologic characterization of influenza in this population. Results will likely not be available in time to guide clinical decisions. Acceptable specimens for testing include nasopharyngeal swabs, pharyngeal swabs or nasal washes.

Avian Influenza A (H5N1) Testing. Because sensitivity of rapid antigen tests vary, clinicians with patients who meet the testing criteria for avian influenza (H5N1) should consult with SFDPH Disease Control regarding the need to submit additional specimens for PCR testing (even if the rapid antigen test result is negative). In contrast to seasonal influenza A infection, pharyngeal swabs should be collected as they are more sensitive than nasal samples for detection of avian influenza (H5N1). Other acceptable specimens include nasopharyngeal swabs or nasal washes. *Clinical labs should not culture specimens from suspected avian influenza cases.*

Instructions for submitting both Seasonal Influenza and Avian Influenza A (H5N1) specimens. If submitting swabs use Dacron with an aluminum or plastic shaft. Cotton or alginate-tipped swabs are not acceptable. Specimens are accepted Monday thru Friday, 8am to 5pm. SFDPH Disease Control can facilitate

special arrangements for Avian Influenza (H5N1) testing. Specimens must be accompanied by an SFDPH laboratory form. Detailed instructions and lab forms are available on our website: www.sfdph.org/CDcontrol.

VACCINE

Seasonal Influenza. Flu vaccine is available in San Francisco and should be given to health care workers, people at risk and anyone not at risk who wants protection against influenza. A list of the groups with highest risk for complications or transmission can be found at our website www.sfdph.org/flu. Some at risk patients should also be immunized against pneumococcus.

Since July 1, 2006, it has been against CA law to administer thimerosal-containing vaccine to women who are knowingly pregnant and to children who are less than three years of age (Health and Safety Code Section 124172 subdivision a). Because of supply issues with the pediatric thimerosal-free vaccine, on November 2, 2006, the Secretary of the California Health and Human Services Agency granted an exemption through December 14, 2006 to this restriction for influenza vaccine used in children (see www.sfdph.org/flu for more information). During this period, children in California younger than 3 years old may receive influenza vaccine that is licensed in the U.S. regardless of thimerosal level, though thimerosal-free product should be used whenever possible. The law still applies to pregnant women. If you do not have thimerosal-free vaccine to offer these women, a small supply is available at the SFDPH Adult Immunization and Travel Clinic (415-554-2863).

Vaccine is best given within the context of ongoing primary care but many public flu clinics are operating. For a list of SF public flu clinics, see www.sfdph.org/flu or leave a message on our flu info line (415-554-2681).

ANTIVIRAL TREATMENT AND CHEMOPROPHYLAXIS

Seasonal Influenza. According to the CDC, influenza A virus resistance to adamantanes (amantadine and rimantadine) is common, while resistance to neuraminidase inhibitors (oseltamivir and zanamivir) is infrequent. Therefore, only oseltamivir and zanamivir should be prescribed for antiviral treatment or chemoprophylaxis. Oseltamivir and zanamivir also have activity against influenza B viruses.

- Oseltamivir: FDA-approved for chemoprophylaxis or treatment of persons age $\geq$1 yr.
- Zanamivir: FDA-approved for prophylaxis of persons age $\geq$5 yrs and for treatment of persons $\geq$7 yrs.

See **www.cdc.gov/flu** for CDC recommendations on antiviral agents for seasonal influenza.

Avian Influenza A (H5N1). H5N1 influenza resistance to adamantanes is common, but resistance to oseltamivir has also been documented. WHO has issued guidelines for treatment and chemoprophylaxis of H5N1 influenza (**www.who.int/csr/disease/avian_influenza/guidelines/pharmamanagement/en/index.html**). In general, WHO does not recommend chemoprophylaxis for low-risk exposure groups.

INFECTION CONTROL

For seasonal influenza implement standard and droplet precautions. For avian influenza standard, contact, airborne, and eye protection precautions are recommended. Respiratory etiquette/cough hygiene is an important part of infection control and includes: 1) not coughing or sneezing into hands but covering the mouth and nose with a tissue instead; 2) encouraging coughing people to wear a surgical mask; 3) wearing a mask if caring for a coughing or sneezing patient who is not able to contain their secretions, and, 4) performing hand hygiene after any contact with respiratory secretions or contaminated objects. Download specific guidelines and patient materials from our website: www.sfdph.org/cdcp - click on infection control link.

AVIAN INFLUENZA PREPAREDNESS

SFDPH is closely monitoring global avian influenza and preparing for the possible spread to our region. We are working closely with hospitals to ensure implementation of proper infection control measures and are developing city-wide emergency response plans. For additional information, visit our website or call our Avian Influenza Information Line (415-554-2905). You may also refer your patients to this line.