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HEALTH UPDATE: INFLUENZA 2015-16

NOVEMBER 19, 2015

The San Francisco Dept. of Public Health (SFDPH) provides this guidance based on current information. Recommendations may change, and SF recommendations may differ from those issued by the Centers for Disease Control and Prevention (CDC) and the California Department of Public Health (CDPH). For updates, forms and FAQs visit: sfcdcp.org/flu

SITUATIONAL UPDATE

Visit www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza(Flu).aspx for updates about current seasonal influenza activity in California.

ACTIONS REQUESTED OF ALL CLINICIANS

1. **Report influenza cases and outbreaks** to SFDPH Disease Control at (415) 554-2830 according to the Surveillance and Reporting guidance below.
2. **Encourage and provide influenza vaccination** for all persons 6 months of age and older and pneumococcal vaccination for those at increased risk of invasive pneumococcal disease.
3. **Prescribe antiviral treatment** with oseltamivir, zanamivir, or peramivir for patients with suspected or confirmed influenza who are hospitalized for severe illness or who are at higher risk for influenza-related complications. Treat early and empirically, without waiting for lab test results.
4. **Prescribe antiviral chemoprophylaxis** with oseltamivir or zanamivir to prevent influenza among vulnerable patients exposed to influenza, especially those in congregate care settings.
5. **Implement infection control precautions** as described on page 3 below. *Note:*
   - ALL PERSONS with fever & cough should wear a face mask in all health care settings.
   - ALL PERSONS with ILI [1] should be instructed to stay at home until 24 hours after fever resolves, except patients who require medical evaluation and care.

SURVEILLANCE AND REPORTING

Goals for influenza surveillance this season are to: (a) prevent and curb outbreaks in confined settings where the risk of transmission is high; and (b) monitor the epidemiology of fatal, severe, and novel cases of influenza.

PLEASE REPORT:

A) **Outbreaks of influenza occurring in institutions or congregate settings (e.g. closed populations such as long-term care, rehab, assisted living, jails) in San Francisco.** Report by telephone within 24 hours to SFDPH Disease Control at (415) 554-2830. Outbreak tracking and control documents are available at: sfcdcp.org/influenzareporting.html. For licensed Long-Term Care Facilities (LTCFs), an outbreak recommendations checklist and other resources are available at http://sfcdcp.org/longtermcare.

[1] Influenza-like-illness (ILI) is defined as fever ≥100° F (37.8°C) AND either cough OR sore throat

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 updated information regarding an incident or situation; unlikely to require immediate action

B) **Fatal cases of laboratory-confirmed influenza aged 0 - 64 years**

- Report within 7 days. Complete a case history form (www.sfcdcp.org/influenzareporting.html) and fax to (415) 554-2848 or call (415)554-2830 during business hours.
- Note: SFDPH may request retained specimens from fatal cases, which will be forwarded to CDPH for viral culture, strain typing and antiviral resistance testing. Goals are to characterize the circulating strains, guide antiviral treatment recommendations and look for the emergence of novel strains.

A) The following novel influenza infections are not due to seasonal influenza strains, but may occur during influenza season and must be reported to SFDPH immediately if suspected:

- **Avian Influenza A: H7N9 or H5N1:** ILI severe enough to require inpatient medical care in a person with: (a) recent close contact[2] with a confirmed or suspected case of infection with influenza A: H7N9 or H5N1 virus while the case was ill; OR (b) recent travel[4] to areas where humans have been infected with influenza A: H7N9 or H5N1 or where influenza A: H7N9 or H5N1 is circulating in poultry.[3] See: www.cdph.ca.gov/programs/cder/Pages/H7N9.aspx and http://sfcdcp.org/avianflu.html.

TESTING, SPECIMEN COLLECTION AND SUBMISSION

Influenza testing is indicated when it will help guide clinical decision-making. Testing may be most useful in hospitalized and/or critically ill patients, and at the beginning and end of influenza season. Treatment with antivirals should not be delayed pending testing results.

Rapid influenza diagnostic tests (RIDT) and polymerase chain reaction tests (PCR): A positive RIDT result is 90-95% likely to be true positive, but a negative result is only 50-70% likely to be true negative. To minimize false negative results: follow the manufacturer's instructions closely; collect respiratory specimens within 3-4 days of illness onset; and consider confirmatory testing with PCR, particularly if an RIDT result is negative during a period of high community influenza activity. Further information can be found at: www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm.

Influenza testing by PCR is now widely available at hospital and commercial laboratories. SFDPH Laboratory offers influenza testing by PCR only in special situations, for example for residents of large group or institutional settings that are experiencing an ILI outbreak. ***All requests for influenza PCR testing by SFDPH must be coordinated through and approved by SFDPH Disease Control at (415)554-2830.*** Instructions and SFDPH Lab forms can be found at: www.sfcdcp.org/influenzareporting.html.

VACCINATION

Influenza Vaccination: Annual vaccination is recommended for everyone age 6 months and older, regardless of risk group, to ensure protection throughout the 2015-16 influenza season. For a complete list of recommendations and vaccine products for 2015-16, see: www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm.

For 2015-16, trivalent influenza vaccines have 2 different virus strains as compared with 2014-15. The second influenza B strain in quadrivalent vaccines is unchanged from the prior year.[4] There is no preferential recommendation for trivalent vs. quadrivalent vaccine; either is acceptable.

[2] For avian flu strains, recent contact or travel = within 10 days of illness onset

[3] H7N9 is currently circulating in the People's Republic of China; H5N1 is currently circulating in Bangladesh, Cambodia, People's Republic of China, Indonesia, Vietnam, and Egypt

[4] For 2015-16, trivalent vaccines contain an A/California/7/2009 (H1N1)-like virus; an A/Switzerland/9715293/2013 (H3N2)-like virus; and a B/Phuket/3073/2013-like virus. Quadrivalent vaccines also contain a B/Brisbane/60/2008-like virus.

Recommendations updated for 2015-16:

C) **Children age 6 months through 8 years:** those who previously received ≥ 2 total doses of vaccine at any time before July 1, 2015 require only 1 dose of the 2015-16 formulation. All others in this age group require 2 doses for 2015-16, given at least 4 weeks apart.

D) **Children age 2 through 8 years:** either the live, attenuated intranasal vaccine, FluMist® or an age-appropriate inactivated injectable vaccine may be used, without preference.

E) **Pregnant women** must receive flu vaccine free of the preservative thimerosal, according to California law. **Children age 6 through 35 months** are exempt from this requirement through 12/31/2015, and may receive thimerosal-containing vaccine if the thimerosal-free vaccine is not available.[5]

Health Care Workers (HCW): By order of the Health Officer, dated 8/30/2015, all hospitals, skilled nursing, and other long term care facilities in San Francisco must require their HCW to receive an annual flu vaccination or, if they decline, to wear a mask in patient care areas during the influenza season. The full document is available at www.sfcdcp.org/fluproviders.html. In addition, CA law (Health & Safety Code §1288.7 / Cal OSHA §5199) mandates either flu vaccination or a signed declination form for all acute-care hospital workers and most other HCW including skilled nursing facility, long-term care facility, and clinic and office- based staff.

Pneumococcal Vaccination: All persons age 65 years and older, and most persons age 6 years and older with immune system compromise, should be vaccinated with 13-valent pneumococcal conjugate vaccine (Prevnar13®) if they have not received it previously. The 23-valent pneumococcal polysaccharide vaccine (Pneumovax23®) is also indicated for these and other individuals, but determining eligibility, sequencing, and timing of these vaccines is complex. Easy-to-follow algorithms for pneumococcal vaccination are available for adult patients (eziz.org/assets/docs/IMM-1152.pdf) as well as for children (eziz.org/assets/docs/IMM-1159.pdf).

Low-cost influenza and pneumococcal conjugate vaccines ($26, while supply lasts) are available at AITC Immunization and Travel Clinic (TravelClinicSF.org) at SFDPH. For additional vaccine locations, see: www.sfcdcp.org/IZlocations.html.

ANTIVIRAL TREATMENT & CHEMOPROPHYLAXIS

Recommendations for 2015-16 are essentially unchanged from 2014-15. For additional information and future updates, see: http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm.

Summary of Treatment Recommendations: Antiviral medications can reduce illness severity, shorten duration of illness and hospitalization, and reduce risk of complications and mortality from influenza. Antiviral treatment with **oseltamivir, zanamivir, or peramivir** is recommended for persons ill with **suspected or confirmed influenza** who are hospitalized, have severe complicated or progressive illness, or who are at higher risk for influenza-related complications. Those at higher risk for influenza-related complications include persons:

- Age <2 years or ≥65 years;
- With chronic pulmonary, cardiovascular, renal, hepatic, hematological, neurologic (including neurodevelopmental), and metabolic disorders
- With immunosuppression, including from medications or by HIV infection;
- Who are pregnant or postpartum (within 2 weeks after delivery);
- Age <19 years who are receiving long-term aspirin therapy;
- Who are American Indians/Alaska Natives;
- Who are morbidly obese (i.e., BMI ≥40); and
- Who reside in nursing homes and other chronic-care facilities

[5] www.cdph.ca.gov/programs/immunize/Pages/CaliforniaThimerosalLaw.aspx

Treatment decisions should be made empirically and should not await lab confirmation of influenza since testing could delay treatment and a negative rapid test does not rule out influenza. Treatment should be initiated **as early as possible** as benefit is greatest when started within 48 hours of illness onset. However for hospitalized patients and those with severe, complicated, or progressive illness, antiviral treatment might still be beneficial if started up to 4-5 days after illness onset. Duration of treatment is 5 days (but may be extended for those still severely ill after 5 days of treatment).

Oseltamivir is FDA-approved for treatment of infants as young as 2 weeks of age and preferred for treatment of pregnant women. Consult the package inserts for antiviral dosing and adjustment for renal impairment.

Summary of Chemoprophylaxis Recommendations: Antiviral medications are 70-90% effective in preventing influenza and are useful adjuncts to vaccination. Chemoprophylaxis with **oseltamivir or zanamivir** is recommended if it can be initiated within 48 hours after exposure to influenza, among:

- Persons with severe immune deficiencies who might not respond to influenza vaccination
- Persons at high risk of influenza complications who have a contraindication to influenza vaccination
- Residents of institutions such as nursing homes, regardless whether they have received influenza vaccine, once influenza cases have been identified at the facility. Chemoprophylaxis should also be considered for unvaccinated institutional staff.

Duration of chemoprophylaxis is until 7 days after the last known exposure to a person with influenza, longer for residents of LTCF. Consult the package inserts for antiviral dosing and adjustment for renal impairment.

INFECTION CONTROL PRECAUTIONS FOR HEALTHCARE SETTINGS

All healthcare facilities should adopt standard and droplet precautions when caring for patients with ILI, or with suspected or confirmed seasonal influenza infection. Specifically:

- Request that all persons with fever and cough wear a face mask;
- Isolate unmasked patients with ILI as soon as possible, ideally in a private exam room or at a distance of at least 3 feet from others;
- Staff entering the exam room of any patient with influenza or ILI should wear a face mask.
- When patients with suspected or confirmed influenza are to be subjected to aerosol-generating procedures, airborne precautions should be added to standard and droplet precautions.
- See www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm for detailed guidance on infection prevention strategies for seasonal influenza.

For the more highly pathogenic H7N9 or H5N1 avian flu strains, standard plus contact and airborne precautions are recommended (www.cdc.gov/flu/avianflu/h7n9-infection-control.htm).

REMINDERS

- SFDPH website influenza page: www.sfcdcp.org/flu
- To report influenza deaths and/or cases or outbreaks as described above, call (415) 554-2830.
- Within San Francisco, the public can call 311 for basic information about influenza.