



Edwin M Lee
Mayor

San Francisco Department of Public Health

Barbara A Garcia, MPA

Director of Health

Tomás J. Aragón, MD, DrPH

Health Officer

Communicable Disease Control & Prevention

sfdph.org/cdcp

Tel (415) 554-2830 Fax (415) 554-2848

HEALTH UPDATE: INFLUENZA 2014-15

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The San Francisco Dept. of Public Health (SFPDH) 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: sfdcp.org/flu

SITUATIONAL UPDATE

Based on CDPH surveillance data as of 11/21/2014, statewide influenza activity is characterized as Sporadic.¹ (See: [www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza\(Flu\).aspx](http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza(Flu).aspx) for CDPH surveillance updates).

Influenza A (H3N2) virus strains are likely to predominate during the 2014-15 influenza season and a “drifted” H3N2 strain (antigenically different from the H3N2 vaccine strain) may be common. CDC advises that vaccination has been found to provide some cross-protection against “drifted” viruses and will also offer protection against the other vaccine viruses such as influenza A (H1N1) and influenza B viruses. In addition, CDC emphasizes the importance of using Oseltamivir and Zanamivir when indicated for treatment and prevention of influenza. (See: CDC Health Advisory 0374 at <http://emergency.cdc.gov/HAN/2014.asp>)

ACTIONS REQUESTED OF ALL CLINICIANS

- 1. Report the following cases** to SFPDH Disease Control at (415) 554-2830: (a) outbreaks of influenza or undiagnosed influenza-like illness (ILI²) in residents of large group or institutional settings; and (b) individual lab-confirmed cases of seasonal or novel influenza meeting criteria below under Surveillance and Reporting.
- 2. Prescribe antivirals for** patients with suspected or confirmed influenza who are hospitalized for severe illness or who are at higher risk for influenza-related complications. Use Oseltamivir or Zanamivir. Treat early and empirically, without relying on lab test results.
- 3. Encourage and facilitate influenza vaccination** for all persons 6 months of age and older and pneumococcal vaccination for those at increased risk of pneumococcal disease.
- 4. 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 ILI² should be instructed to stay at home until 24 hours after fever resolves, except patients who require medical evaluation and care.

INFLUENZA 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 cases of influenza.

¹ Sporadic = small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

² ILI (influenza-like-illness) is defined as fever (>37.8°C or 100.0°F) and cough and/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

PLEASE REPORT:**A) Cases occurring among residents of group or institutional settings (e.g. long-term care, rehab, assisted living facilities, college dormitories) in San Francisco which are either: (a) lab-confirmed cases of influenza or (b) outbreaks of undiagnosed ILI.**

- Report by telephone to SFDPH (415)554-2830 within 24 hours
- For Infection control checklists & forms for tracking outbreaks: www.sfcddcp.org/influenzareporting.html
- Note: During outbreak investigations, SFDPH may request specimens for confirmatory testing

B) Fatal cases of lab-confirmed influenza in persons 0-64 yrs, whether hospitalized or not.

- Complete a case report form (see www.sfcddcp.org/influenzareporting.html) as soon as possible, but no later than 7 days, and fax to (415)554-2848 or call (415)554-2830 to speak with an investigator.
- ALL influenza deaths ages 0-64 years are reportable by law in California
- 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.

C) 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:

- **Swine variant influenza:** ILI in any person with recent³ swine exposure or contact with a confirmed case of swine variant influenza (e.g. H3N2v or H1N2v). See: www.cdc.gov/flu/swineflu/variant.htm.
- **Avian Influenza A: H7N9 or H5N1:** ILI severe enough to require inpatient medical care in a person with: (a) recent⁴ close contact with a confirmed or suspected case of infection with influenza A: H7N9 or H5N1 virus while the case was ill; OR (b) recent⁴ travel to areas where humans have been infected with influenza A: H7N9 or H5N1 or where influenza A: H7N9 or H5N1 is circulating in poultry.⁵ See: www.cdc.gov/flu/avianflu/h7n9-virus.htm and www.cdc.gov/flu/avianflu/h5n1/testing.htm.

INFLUENZA TESTING, SPECIMEN COLLECTION AND SUBMISSION

Rapid diagnostic tests may be useful when testing will help guide acute clinical care decisions. Reliability of these tests varies. Further information can be found at: www.cdc.gov/flu/professionals/diagnosis/rapidclin.

In select situations, SFDPH Laboratory may perform additional testing by Polymerase Chain Reaction (PCR). All requests for influenza PCR testing by SFDPH **must** be coordinated through and approved by SFDPH Disease Control at (415)554-2830. SFDPH may provide testing for influenza by PCR among residents of large group or institutional settings, or in patients who are hospitalized with ILI.

Collection of Influenza Specimens: Acceptable specimens are nasal aspirates or washes, nasopharyngeal or pharyngeal swabs, dual nasopharyngeal/throat swabs and lower respiratory tract specimens (bronchoalveolar lavage, bronchial wash, tracheal aspirate, sputum, and lung tissue). Specimens should be collected within the first 72 hours, but no later than 5 days, after symptom onset.

³ For swine variant flu strains, recent exposure or contact = within 7 days of illness onset

⁴ For avian flu strains, recent contact or travel = within 10 days of illness onset

⁵ 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

Use Dacron swabs with an aluminum or plastic shaft in viral transport medium. Specimens should be kept refrigerated and delivered on cold packs to SFDPH Laboratory within 72 hours of collection. Specimens that cannot be delivered to the SFDPH Laboratory within 72 hours must be frozen at -70°C or below and shipped on dry ice. Specimens are accepted Monday - Friday, 8am to 5pm, and must be accompanied by an SFDPH lab form. Instructions and forms can be found at: www.sfdcdp.org/influenzareporting.html.

VACCINES FOR INFLUENZA

Virus strains contained the 2014-15 influenza vaccine are unchanged from 2013-14. Trivalent vaccines contain an A/California/7/2009 H1N1-like strain, an A/Texas/50/2012 H3N2-like strain, and a B/Massachusetts/2/2012-like strain. Quadrivalent vaccines also contain a B/Brisbane/60/2008-like strain. Intranasal, high-dose, intradermal and egg-free formulations are available. For a complete list of products, see: www.sfdcdp.org/fluvaccine.html.

If your facility does not offer flu vaccine, patients can be referred to AITC Immunization and Travel Clinic (TravelClinicSF.org) at SFDPH. For additional flu vaccine locations, see: www.sfdcdp.org/IZlocations.html.

Recommendations: Annual vaccination is recommended for everyone age 6 months and older, regardless of risk group, to ensure protection throughout the 2014-15 influenza season.

- **Children age 6 months through 8 years:** only 1 dose of the 2014-15 formulation is needed if child is known to have received at least 2 doses of seasonal influenza vaccine since July 1, 2010, or at least 1 dose of the 2013-14 vaccine; otherwise all others in this age group need 2 doses.
- **Children age 2 through 8 years:** CDC recommended for 2014-15 that the live, attenuated intranasal vaccine (LAIV; FluMist®) is preferred for healthy children in this age group due to greater efficacy versus injectable vaccine in controlled studies. (See: www.cdc.gov/mmwr/preview/mmwrhtml/mm6332a3.htm.)
- **Pregnant women, and children age 6 through 35 months,** as in past years, must receive flu vaccine free of the preservative thimerosal, according to California law.
- **Persons who report allergy to eggs:** recommendations slightly revised for 2014-15 are available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6332a3.htm>.

Health Care Workers: By order of the Health Officer, dated 9/9/2014, all hospitals, skilled nursing, and other long term care facilities in the City and County of San Francisco must require their health care workers 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.sfdcdp.org/fluproviders.html. In addition, CA law (Health & Safety Code §1288.7 / Cal OSHA §5199) mandates either flu vaccination or the signing of a declination form for all acute-care hospital workers and most health care personnel including clinic and office- based staff.

ANTIVIRAL TREATMENT FOR INFLUENZA

Antiviral medications can reduce illness severity, shorten duration of illness and length of hospitalization, and reduce risk of complications and mortality from influenza. Antiviral treatment with **oseltamivir or zanamivir** is recommended for persons ill with **suspected or confirmed influenza** who:

- Are hospitalized
- Have severe, complicated, or progressive illness; or
- 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 \geq 40); and
- Who reside in nursing homes and other chronic-care facilities

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.

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. 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. Antiviral dosing can be found in the Prescribing Information for oseltamivir (Tamiflu[®]) or zanamivir (Relenza[®]).

For additional and/or updated recommendations for antiviral treatment, as well as for prophylaxis of influenza, see: www.cdc.gov/flu/professionals/antiviral/summary-clinicians.htm.

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 ILI should either ensure the patient is masked, or wear either a face mask or N-95 respirator pending diagnosis.
- 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.

Infection control principles and actions relevant for seasonal influenza are also appropriate for the control of swine variant influenza. However, 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).

SOLICITATION FOR SENTINEL PROVIDERS FOR INFLUENZA SURVEILLANCE

Primary care providers are invited to enroll as sentinel providers for influenza surveillance in San Francisco. Compiling and reporting data usually takes less than 30 minutes per week. If interested in participating, contact the California Department of Public Health at influenzasurveillance@cdph.ca.gov or (510) 231-6861.

REMINDERS

- SFDPH website influenza page: www.sfdcp.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.