



Health Advisory

Severe Influenza Update – January 9, 2018

Influenza is widely circulating in California. Influenza A (H3N2) viruses are predominating this season. To date, 27 influenza-associated deaths in persons under 65 years of age have been reported in California during the 2017-2018 influenza season.

As of December 31, 2017, 7 of 27 patient specimens sent to the Humboldt County Lab have tested positive for influenza. Of those, 5 specimens have tested positive for influenza A/H3 and 2 specimens have tested positive for Influenza B.

The predominant influenza virus this season to date is **influenza A (H3N2) virus**. Although it is early in the influenza season, influenza activity is expected to increase substantially in the coming weeks to months. Therefore, primary prevention with influenza vaccination is strongly recommended – all persons aged 6 months and older, including healthcare personnel should receive influenza vaccination **now**.

For 2017-2018, vaccines are recommended to contain:

- an **A/Michigan/45/2015 (H1N1)pdm09-like virus (updated)**
- an **A/Hong Kong/4801/2014 (H3N2)-like virus**
- a **B/Brisbane/60/2008-like (B/Victoria lineage) virus**

Quadrivalent vaccines contain all strains above in addition to **B/Phuket/3073/2013-like (B/Yamagata lineage) virus**.

To date in California, all influenza 2009 A (H1) and A (H3) antigenically characterized viruses have matched the influenza 2009 A (H1) and A (H3) components included in the trivalent and quadrivalent influenza vaccines. In addition, all influenza B antigenically characterized viruses in California have matched the influenza B Victoria lineage virus in the trivalent and quadrivalent influenza vaccines.

Providers:

Some information for consideration regarding management of patients with suspected or confirmed influenza this season is provided below. For updated information on influenza activity, influenza vaccines, and other recommendations, clinicians can view the CDC influenza web page at:

<http://www.cdc.gov/flu/>

Specimen submittal forms and more California specific influenza information can be found on the CDPH Influenza webpage at:

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx>

ACTIONS REQUESTED OF ALL CLINICIANS:

- 1) **Vaccination:** All persons aged 6 months and older, including healthcare personnel should receive influenza vaccination now. The H3N2 strain is included in this year's formulations.
- 2) **Empiric antiviral treatment:** Start treatment with an appropriate antiviral for suspected influenza as soon as possible for the following groups:





- a. Hospitalized patients
- b. Outpatients with severe/progressive illness
- c. Patients at high risk for influenza complications, including
 - i. Persons less than 2 years or greater than 65 years
 - ii. Persons with chronic pulmonary, cardiovascular, renal, hepatic, hematological, neurologic, and metabolic disorders.
 - iii. Persons with immunosuppression, including from medication or HIV infection
 - iv. Women who are pregnant or postpartum (within 2 weeks of delivery)
 - v. Persons aged <19 years who are receiving long-term aspirin therapy
 - vi. American Indians/Alaska Natives
 - vii. Persons who are morbidly obese, and
 - viii. Residents of nursing home and other chronic-care facilities.

Healthy, non high-risk persons can also experience severe complications associated with influenza, so antiviral treatment is reasonable.

- 3) **Testing:** For influenza testing, RT-PCR is recommended, which can be done at the local public health laboratory; **antigen detection tests such as rapid influenza diagnostic tests and immunofluorescence assays (DFA) lack sensitivity and false negative results can occur**, so a negative result does not rule out influenza virus infection; confirm by RT-PCR assay if influenza is needed for clinical management.

All specimens collected on critically ill or fatal cases with suspected or laboratory-confirmed influenza should be referred to a public health laboratory for further PCR confirmation and subtyping for novel strains.

4) **Laboratory**

- Specimens will be tested for influenza A and B by PCR. Specimens that test positive by PCR for influenza A will then be sub-typed as A (seasonal H1), A (H3), or A (2009 H1N1). Testing is provided M-F with a turn-around time of 48 hours or less. Sub-typing results are available once per week and all novel influenza viruses will be sent to the California Department of Public Health (CDPH) for further characterization.
- **Case Definition:** Specimens should be collected from patients with influenza-like illnesses (temperature $\geq 100^{\circ}\text{F}$ [or 37.8°C] orally, AND cough and/or sore throat), especially those with any of the following:
 - Persons hospitalized with suspected influenza,
 - 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,
 - Persons with recent overseas travel history.





- **Lab Submissions:** Contact the Humboldt County Public Health Laboratory (HCPHL) immediately to arrange for testing, **(707) 268-2179** or after hours call the lab courier phone to schedule pick up, **(707) 499-4513**.

Acceptable Specimens:

- Specimens should be accompanied by a completely filled out HCPHL requisition, a clinical history and copies of any labs,
 - Obtain one **nasopharyngeal swab (NP)** during the acute phase of the illness; within 5 days of onset of respiratory symptoms,
 - Use a fine tipped, nylon flocked swab for collection, provided by the HCPHL and additional kits can be obtained by calling the main lab at, **(707) 268-2179** or call the lab courier phone to arrange for drop-off after hours, **(707) 499-4513**
 - After collection, place the swab into the provided Viral Transport Media and store and ship the specimen at refrigerator temperature (4°C).
- **Note:** If other respiratory viruses are suspected please submit the same type of specimen and order the respiratory panel from the lab (R-mix); which will test for Influenza A & B, Parainfluenza 1,2,& 3, Adenovirus, metapneumovirus and respiratory syncytial virus (RSV) by cell culture.

Send specimens to: Humboldt Co. DHHS, PHB Laboratory, 529 I St. Eureka CA 95501
Main Laboratory Number: (707) 268-2179 Lab courier pick-up call: (707) 499-4513

- 5) **Reporting: Hospitals: Laboratory-confirmed severe (ICU) and fatal influenza cases <65 years of age should be reported to the PHD.**

