



RIGOBERTO VARGAS, MPH, DIRECTOR

ROBERT M. LEVIN, MD, HEALTH OFFICER
HOT TIPS #98 DATE 1/3/2018

Please copy and distribute to ALL physicians at your location.

HEALTH ADVISORY

Presumptive Treatment of Influenza is Highly Recommended this Season

Influenza activity, predominantly from A(H3N2), has increased significantly in recent weeks, according to the Centers for Disease Control and Prevention (CDC), which issued a [health advisory](#) Wednesday, December 27, 2017.

We have seen an upswing in influenza activity in our county as judged by phone calls from physicians, our sentinel provider and from what appears to be 4 deaths attributable to influenza.

Given the characteristics of this season's flu, the CDC is recommending, in addition to the flu vaccine for prevention, increased use of neuraminidase inhibitor (NAI) antivirals for treatment. Quick treatment is crucial and "should not be delayed even for a few hours to wait for the results of testing," according to the advisory. Treatment works best when started within 2 days of onset but has shown benefit for some patients even when initiated later. Focus on treatment is important because in past seasons, A(H3N2) has been linked with more deaths and hospitalizations in people aged 65 years and older and young children than in other groups. Also, this year's vaccine effectiveness may be as low as last year's, at 32% for A(H3N2), the CDC says. NAIs have been effective in randomized trials but have been underused with both outpatients and inpatients, the CDC notes.

The advisory reminds clinicians that **all inpatients and all high-risk patients (whether inpatient or outpatient) who are suspected of having or confirmed to have influenza should be treated.**

Those high-risk groups include the following:

- Patients with severe, complicated, or progressive illness, including outpatients with severe or prolonged progressive symptoms or those who develop pneumonia;
- Children under age 2 years or people 65 years and older, as well as people younger than 19 years who are receiving long-term aspirin therapy;
- American Indians/Alaska natives;
- Women who are pregnant or within 2 weeks postpartum;
- People with suppressed immune systems;
- Extremely obese people (body mass index of at least 40); and
- Those living in long-term care facilities.

Treatment is also indicated when flu is suspected or confirmed for "persons with chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematological (including sickle cell disease), and metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury)," the CDC advises.

To more effectively treat patients quickly, the CDC says providers may want to consider setting up phone triage lines or write antiviral prescriptions without testing and before an office visit when treatment is deemed necessary over the phone.

Three prescription neuraminidase inhibitor antiviral medications are approved by the U.S. Food and Drug Administration (FDA) and are recommended for use in the U.S. during the 2017–2018 influenza season: oseltamivir (available as a generic version or under the trade name Tamiflu®), zanamivir (Relenza®), and peramivir (Rapivab®).

- Oral oseltamivir is FDA-approved for treatment of uncomplicated influenza within 2 days of illness onset in persons aged 2 weeks and older, and for chemoprophylaxis to prevent influenza in people 1 year of age and older. Although not part of the FDA-approved indications, use of oral oseltamivir for treatment of influenza in infants younger than 14 days old, and for chemoprophylaxis in infants 3 months to 1 year of age, is recommended by CDC and the American Academy of Pediatrics. Due to limited data, use of oseltamivir for chemoprophylaxis is not recommended in children younger than 3 months unless the situation is judged critical. CDC recommends oseltamivir treatment as soon as possible for hospitalized patients with suspected or confirmed influenza, high-risk outpatients with suspected or confirmed influenza, and those with progressive disease.
- Inhaled zanamivir is FDA-approved for treatment of uncomplicated influenza within 2 days of illness onset in persons 7 years and older and for prevention of influenza in persons 5 years and older. Inhaled zanamivir is not recommended for treatment of influenza in hospitalized patients due to limited data.
- Intravenous peramivir is FDA-approved for the treatment of acute uncomplicated influenza within 2 days of illness onset in persons aged 2 years and older.

Adamantanes (rimantadine and amantadine) are not currently recommended for antiviral treatment or chemoprophylaxis of influenza A because of high levels of resistance among circulating influenza A viruses.

There are no current national shortages of neuraminidase inhibitors (i.e., oseltamivir, zanamivir and peramivir), and manufacturers report they expect to meet projected seasonal demands. If there is difficulty locating oseltamivir for oral suspension, as there has been in some previous seasons, oral suspension can be compounded by a pharmacy from oseltamivir capsules. However, this compounded suspension should not be used for convenience or when oseltamivir oral suspension is commercially available.

More information about compounding an oral suspension from oseltamivir 75 mg capsules can be found at https://www.gene.com/download/pdf/tamiflu_prescribing.pdf

Additional Considerations for Clinicians:

- **Bacterial Infections:** Antibiotics are not effective against influenza virus infection, and early diagnosis of influenza can reduce the inappropriate use of antibiotics if bacterial co-infection is not suspected.

Communicable Disease Office

2500 South C Street, Suite B, Oxnard, California 93033 • (805) 981-5201 • FAX (805) 981-5200

However, because certain bacterial infections can produce symptoms similar to influenza and bacterial infections can occur as a complication of influenza, bacterial infections should be considered and appropriately treated, if suspected. In addition, because pneumococcal infections are a serious complication of influenza infection, current pneumococcal vaccine recommendations for adults 65 years of age or older, as well as adults and children at increased risk for invasive pneumococcal disease due to chronic underlying medical conditions, should be followed (see <http://www.cdc.gov/vaccines/vpd-vac/pneumo/vac-PCV13-adults.htm> and <http://www.cdc.gov/vaccines/vpd-vac/pneumo/vacc-in-short.htm> for further information).

- **Adverse Events and Antiviral Use:** The most common adverse events associated with oral oseltamivir include a slightly increased risk of nausea and vomiting as compared to placebo, with nausea occurring in 10% of adults with influenza who received oseltamivir and 6% of people who received placebo in controlled clinical trials (3% and 4%, respectively, in children), and vomiting occurring in 9% of adults with influenza who received oseltamivir and 3% of people who received placebo in controlled clinical trials (15% and 9%, respectively, in children). These symptoms are generally transient and can be mitigated if oseltamivir is taken with food. Adverse events for inhaled zanamivir were not increased as compared to placebo in clinical trials, but cases of bronchospasm have been reported during post marketing; inhaled zanamivir is not recommended for persons with underlying airways disease (e.g., asthma or chronic obstructive pulmonary diseases). For people who received peramivir intravenously or intramuscularly in clinical trials, the most common adverse event was diarrhea, occurring in 8% versus 7% in people who received placebo.

For more detailed information on testing and treatment go to <https://emergency.cdc.gov/han/han00409.asp>

This bulletin is intended to improve the public health in our county by keeping physicians and nurses informed of noteworthy diagnoses, disease trends and other events of medical interest. Another goal of a public health department is to educate. We hope that you will use this information to increase your awareness. Please allow us to continue in our role of speaking to the press so that we may maximize the educational message to the benefit of all citizens of Ventura County.

Communicable Disease Office

2500 South C Street, Suite B, Oxnard, California 93033 • (805) 981-5201 • FAX (805) 981-5200