# This is an official **CDC HEALTH UPDATE**

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# CDC Guidance on Antiviral Treatment of Patients with Confirmed, Probable, or Suspected Cases of Novel Influenza A (H1N1)

**Summary:** As a reminder to clinicians, this Health Update summarizes existing CDC guidance issued on May 6, 2009 on the use of antiviral drugs in novel H1N1 patients and their close contacts. CDC recommends that influenza antiviral treatment be given to all hospitalized patients with confirmed, probable, or suspected novel influenza A (H1N1) and any patient with confirmed, probable or suspected novel influenza A (H1N1) who is at higher risk for seasonal influenza complications. All hospitalized patients should be carefully monitored and treated with antiviral medications as soon as possible after admission, including patients who seek treatment more than 48 hours after onset of symptoms. The drugs recommended for treatment are either oseltamivir or zanamivir. The novel H1N1 viruses are resistant to amantadine and rimantadine.

## **Background:**

Clinical studies indicate that antiviral treatment is safe and effective for seasonal influenza, and that treatment is most effective if started as early as possible, preferably within 48 hours of illness onset. Antiviral susceptibility testing of novel H1N1 viruses indicates that antiviral drugs should be effective for treatment of this new strain of influenza also.

A recent study published in the Morbidity and Mortality Weekly Report (*MMWR*) described diagnosis, medical conditions, and treatment of 30 patients hospitalized in California with novel influenza A (H1N1) infection during April and May 2009. The report indicated that only 15 of 30 patients hospitalized with novel H1N1 infection received antiviral treatment. Treatment was initiated within 48 hours of symptom onset in only 5 of the 30 patients, although in some instances patients presented for medical care more than 48 hours after onset of illness. Although the majority of hospitalized persons infected with novel influenza A (H1N1) recovered without complications, some patients had severe and prolonged illness, and several remain hospitalized. Among hospitalized patients with novel influenza A (H1N1), about half of those who had chest x-rays taken had findings consistent with pneumonia, but few had evidence of bacterial co-infection. Primary influenza virus pneumonia, with or without bacterial co-infection, is a potentially life-threatening illness.

#### Recommendations:

CDC recommends that antiviral treatment for novel influenza A (H1N1) be given as soon as possible after onset of symptoms for all hospitalized patients with confirmed, probable, or suspected novel influenza A (H1N1) virus infection. All hospitalized patients with novel influenza A (H1N1) infection should be monitored carefully and treated with antiviral therapy, including patients who seek care more than 48 hours after illness onset. Influenza antiviral medicines should be initiated as soon as possible if influenza is suspected, and often before diagnostic test results (RT-PCR) are available, for maximum benefit. If bacterial co-infection is suspected, antibacterials should be directed at likely pathogens (e.g., *S. pneumoniae*, *S. aureus*) consistent with existing guidelines for the

management of community-acquired pneumonia.\* Antibacterial therapy also should be initiated after appropriate diagnostic specimens are obtained, including blood, respiratory secretions (especially for intubated patients), and pleural fluid for culture and urine for pneumococcal antigen testing (in adults).

Patients who are at higher risk for seasonal influenza complications (including people 65 years and older, children younger than five years old, pregnant women, and people of any age with chronic medical conditions) are also recommended for treatment, regardless of whether they require hospitalization.

### For More Information:

Antiviral Treatment for Novel Influenza A (H1N1) Virus Infection http://www.cdc.gov/h1n1flu/recommendations.htm

MMWR: Hospitalized Patients with Novel Influenza A (H1N1) Virus Infection --- May 18, 2009 / 58(Early Release);1-5 California, April--May, 2009 http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e0518a1.htm

Additional documents for health care providers, public health officials, and the public are available on www.cdc.gov. Information for the public is posted daily in both English and Spanish. Also, CDC's toll-free hotline, 800-CDC-INFO (800-232-4636) TTY: (888) 232-6348, is available 24 hours a day, every day.

\*Mandell LA, Wunderink RG, Anzueto A, et al. Infectious Diseases Society of America / American Thoracic Society Consensus Guidelines on the Management of Community-acquired Pneumonia in Adults. Clin Infect Dis 2007;44 Suppl 2:S27-72.

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