



Disease Control Branch

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PREPARING FOR THE 2008-2009 INFLUENZA SEASON

Although influenza season is just beginning, the California Department of Public Health (CDPH) has already received reports of cases of laboratory-confirmed influenza in Northern California. One patient presented as an outpatient with influenza-like illness, had a weakly positive rapid influenza test and was prescribed oseltamivir. The patient continued to do poorly, developed hemoptysis, collapsed in his dormitory and subsequently died. Subsequent blood culture and throat culture from initial presentation grew methicillin-sensitive *Staphylococcus aureus*, and post-mortem testing of lung tissue confirmed influenza A/H1N1 by polymerase chain reaction (PCR).

Although final pathology results are still pending, this fatal case highlights the need for health care providers to be vigilant during the influenza season for this potentially catastrophic complication of influenza. Influenza with secondary *S. aureus* infection can affect all age groups and may be characterized by a relatively high case-fatality rate and rapid clinical progression (e.g., death within 24 hours of admission). Severe methicillin-resistant *Staphylococcus aureus* (MRSA) and methicillin-sensitive *S. aureus* (MSSA) are reportable immediately to Public Health by telephone 951-358-5107 during business hours or 951-782-2974 after hours.

Recommendations for Antiviral Treatment or Prophylaxis

Although most of the resistance to adamantanes (amantadine, rimantadine) has been found in influenza A (H3N2) viruses, adamantane resistance in influenza A (H1N1) viruses has also been observed. In addition, both nationally and in California, the emergence of resistance to oseltamivir was identified last season in influenza A/H1N1 viruses, and in other parts of the world such as Africa, there is a much higher prevalence of resistance to oseltamivir.

Since January 2006, the Centers for Disease Control and Prevention (CDC) and CDPH have recommended against the use of amantadine or rimantadine to treat and prevent influenza due to increasing resistance of influenza virus strains to these drugs. Oseltamivir-resistance influenza A (H1N1) strains have been identified in the United States. However, oseltamivir or zanamivir continue to be the recommended antivirals for treatment of influenza because other influenza virus strains remain sensitive to oseltamivir, and resistance levels to other antiviral medications remain high. Influenza A (H1N1) virus strains that are resistant to oseltamivir remain sensitive to zanamivir.

Updates on antiviral resistance of influenza strains, including data on state and national isolates will be provided as they become available. Recommendations will be revised as needed. Annual influenza vaccination remains the primary means of preventing morbidity and mortality associated with influenza.

CONTROL MEASURES FOR INFLUENZA-LIKE ILLNESS IN PATIENT WAITING AREAS

Respiratory Hygiene/Cough Etiquette

The following measures to contain respiratory secretions are recommended for all individuals with signs and symptoms of a respiratory infection.

- Cover the nose/mouth when coughing or sneezing.
- Use tissues to contain respiratory secretions and dispose of them in the nearest waste receptacle after use.
- Perform hand hygiene (e.g., hand washing with non-antimicrobial soap and water, alcohol based hand rub, or antiseptic hand wash) after having contact with respiratory secretions and contaminated objects/materials.

Initiate droplet precautions for persons with respiratory or influenza-like illness or confirmed influenza including

- Physically segregate patients with respiratory symptoms from other patients by at least three feet when possible.
- Designate a separate unit for patients with respiratory or influenza-like illness.
- Wear a mask when within 3 feet of the patient.
- Wear a gown if clothing is likely to be soiled by body fluids, and ensure proper disposal.
- Provide tissues and no-touch receptacles for used tissue disposal.
- **Encourage employees with cough and fever to stay home.**

Visual Alerts

- Post visual alerts (in appropriate languages) at the entrance to outpatient facilities (e.g., emergency departments, physician offices, outpatient clinics) instructing patients and persons who accompany them (e.g. family, friends) to inform healthcare personnel of symptoms of a respiratory infection when they first register for care and to practice Respiratory/Hygiene/ Cough Etiquette.
- *Notice to Patients to Report Flu Symptoms*
www.cdc.gov/ncidod/dhqp/pdf/Infdis/RespiratoryPoster.pdf
Emphasizes covering coughs and sneezes and the cleaning of hands
- *Cover your Cough*
www.cdc.gov/flu/protect/covercough.htm
Tips to prevent the spread of germs from coughing
- *Information about Personal Protective Equipment*
www.cdc.gov/ncidod/dhqp/ppe.html
Demonstrates the sequences for donning and removing personal protective equipment