

This is an Official CDC HAN

ADVISORY

Forwarded by the State of Montana

DPHHS HAN System

Distributed via the DPHHS Health Alert Network (HAN) System
Thursday January 31, 2007 8:30 AM

Influenza-Associated Pediatric Mortality and *Staphylococcus aureus* co-infection

Action Requested

- Consider the possibility of bacterial co-infection among children with influenza
- Submit bacterial cultures when bacterial co-infection is suspected
- Contact local health department as soon as possible when deaths among children due to lab-confirmed influenza are identified
- Cases of pediatric influenza-associated deaths should be promptly reported to the state health department

Background

CDC is requesting that states report all cases of influenza-related pediatric mortality during the 2007-2008 influenza season. This health advisory contains updated information about influenza and bacterial co-infections in children and provides interim testing and treatment recommendations.

Since 2004, the Influenza-Associated Pediatric Mortality Surveillance System, part of the Nationally Notifiable Disease Surveillance System, has collected information on deaths among children due to laboratory-confirmed influenza, including the presence of other medical conditions and bacterial infections at the time of death. From October 1, 2006 through September 30, 2007, 73 deaths from influenza in children were reported to CDC from 39 state health departments and two city health departments. Data on the presence (or absence) of bacterial co-infections were recorded for 69 of these cases; 30 (44%) had a bacterial co-infection, and 22 (73%) of these 30 were infected with *Staphylococcus aureus*.

The number of pediatric influenza-associated deaths reported during 2006-07 was moderately higher than the number reported during the two previous surveillance years; the number of these deaths in which pneumonia or bacteremia due to *S. aureus* was noted represents a five-fold increase. Only one *S. aureus* co-infection among 47 influenza deaths was identified in 2004-2005, and 3 co-infections among 46 deaths were identified in 2005-2006. Of the 22 influenza deaths reported with *S. aureus* in 2006-2007, 15 children had infections with methicillin-resistant *S. aureus* (MRSA).

The median age of children with *S. aureus* co-infection was older than children without *S. aureus* co-infection (10 years versus 5 years, $p < .01$) and children with co-infection were more likely to have pneumonia and Acute Respiratory Distress Syndrome (ARDS). Influenza strains isolated from these children were not different from common strains circulating in the community, and the

MRSA strains have been similar to those associated with MRSA skin infection outbreaks in the United States.

Recommendations

Health care providers should test persons hospitalized with respiratory illness for influenza, including those with suspected community-acquired pneumonia. Health care providers should be alerted to the possibility of bacterial co-infection among children with influenza, and request bacterial cultures if children are severely ill or when community-acquired pneumonia is suspected. Health care providers should be aware of the prevalence of methicillin-resistant *S. aureas* strains in their communities when choosing empiric therapy for patients with suspected influenza-related pneumonia. Clinicians, health care providers, and medical examiners are asked to contact their local or state health department as soon as possible when deaths among children associated with laboratory-confirmed influenza are identified.

Healthcare providers should be alerted to the possibility of bacterial co-infection among children with influenza, and request bacterial cultures when bacterial co-infection is suspected. Clinicians, clinical agencies and medical examiners are asked to contact their local or state health department as soon as possible when deaths among children due to laboratory-confirmed influenza are identified. CDC is interested in receiving *S. aureus* isolates to better characterize those from fatal cases of influenza in children.

For More Information

If you have any questions about this Health Advisory, please call the DPHHS Communicable Disease Epidemiology Section at 406 444-0273 or the CDC Influenza Division, Epidemiology and Prevention Branch at 404-639-3727.

=====

The goal of Montana's Health Alert Network is to transmit information to local public health authorities as quickly as possible, and assign a suitable priority to the message that is sensitive to the impact of a health-related event providing information relative to the public health and safety of Montanans. For questions or comments relative to Montana's HAN system you may contact the DPHHS HAN Coordinator, Gerry Wheat at <<mailto:gwheat@mt.gov>>

Categories of Health Alert messages:

- 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.

=====

This message has been sent under blind carbon copy (bcc) to suppress the display of a large number of e-mail addresses. You have received this message based upon the information contained within our emergency notification data base. If you have a different or additional e-mail or fax address that you would like us to use please notify us as soon as possible by e-mail at hhshan@mt.gov <<mailto:hhshan@mt.gov>>