Winnebago County Health Department

Promoting a Safer and Healthier Community Since 1854

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Health Alert

To: Winnebago County Area Medical Professionals

From: Dee Dunnett, Director for Center of Health Protection and Promotion
Kara Biery, Communicable Disease Supervisor

Date: July 10, 2012

RE: Probable Measles Case

The Winnebago County Health Department is investigating a probable case of measles. At present, we have a 4 year old with a rash that began behind the ears with an onset of 6/30/12. The child also presented with conjunctivitis, fever of 102, and Koplik spots as observed by a physician. Laboratory results show the child is measles virus Ab.IgM positive.

Measles is a highly contagious disease that is transmitted from person to person via respiratory droplets. The incubation period for measles from exposure to symptoms is 10-12 days. The time from exposure to the onset of rash averages 14 days. **The illness is characterized by a fever and cold-like symptoms that may include a runny nose; red, runny and sensitive eyes; and a cough. These symptoms are followed by a red, blotchy rash that usually starts on the face or neck and spreads to the rest of the body.**

All reports of measles suspects are taken very seriously by staff from local and state health departments. Each measles case could start an outbreak, especially if under-vaccinated or unvaccinated individuals are exposed. Surveillance and prompt notification of suspected cases is essential to help prevent the spread of disease. Notification to the local public health department should occur with 24 hours of suspected case identification.

Per CDC, as an extremely rare disease in the United States, clinical evidence is not sufficient to confirm a case of measles. Many clinicians have never seen a case of measles, and most patients who present with measles-like illness today do not have measles.

Since measles is such a highly contagious disease, with the potential for explosive spread following importation of the virus, it is critical to rapidly identify the few measles cases that do occur. For these reasons, it is crucial to use laboratory diagnosis to confirm the few actual measles cases among the thousands of patients with suspected measles. Because measles is so rare, even with the excellent laboratory tests available, there will be some false positive results. To minimize the problem of false positive laboratory results, it is important to restrict case investigation and laboratory tests to patients most likely to have measles: those with fever and generalized maculopapular rash.

Suspected measles cases should be tested. Serum **and** respiratory specimens for virus isolation should be obtained as soon as possible. Ideally, specimens should be collected within the first 3 days of rash onset. Although there are multiple possible methods for testing for IgM antibody, EIAs are the most consistently accurate tests and are therefore the recommended method. EIA tests for measles are often positive on the day of rash onset. However, 30% of serum samples obtained in the first 72 hours after rash onset may give false negative results. Negative results from serum collected in the first 72 hours after rash onset should be confirmed with a second serum obtained ≥ 72 hours after rash onset. IgM is detectable for at least 30 days after rash onset and frequently longer. Nasopharyngeal washes, throat and nasopharyngeal swabs are the RT –PCR methodology validated by CDC and should be used in conjunction with serology testing.

Processing of specimens is done at no charge by the Illinois Department of Public Health laboratories. Expedited shipment can be acquired by promptly contacting your local health department immediately. For more information call the Winnebago County Health Department at 815-720-4050.