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MEMORANDUM

TO: Local Health Departments, Regional Offices of Illinois Department of Public Health, hospital emergency departments, infection control professionals, infectious disease physicians

FROM: Communicable Disease Control Section
Illinois Department of Public Health

DATE: September 5, 2014

SUBJECT: Enterovirus D68 (EV-D68) Respiratory Illness

Several hospitals in Illinois and Missouri have recently reported clusters of severe respiratory illness in community members, especially children. In two of these hospitals, enterovirus was identified as the cause of the illnesses; subsequently, specimens were sent to CDC for strain typing, and Enterovirus D68 was identified. The age of ill persons in two of the hospitals with confirmed enterovirus D68 in Missouri and Illinois ranged from six weeks to 16 years, with a median of 4 and 5.5 years, respectively. Patients presented with cough, difficulty breathing, with or without fever and wheezing. Nineteen children in one hospital and nine in the other hospital were admitted.

There are more than 100 types of enteroviruses, which are very common viruses of respiratory illness. It is estimated that up to 15 million enterovirus infections occur in the U.S. each year. Most infected people have no symptoms or mild symptoms but some infections can be serious. Enterovirus infections tend to occur seasonally, in the summer and fall. Enteroviruses can cause respiratory symptoms, febrile rash, meningitis, or encephalitis. These viruses are transmitted through close contact with an infected person, or by touching objects or surfaces that are contaminated with the virus and then touching the mouth, nose, or eyes.

Enterovirus D68 (EV-D68), a specific type of enterovirus, usually causes mild to severe respiratory illness. Because it has not been reported commonly, the full spectrum of illness due to this type of enterovirus is not well-defined.

There is no specific treatment for EV-D68 infections and no specific anti-viral medications currently available for this purpose. Vaccines are not available. The measures below can help reduce the risk of infection with EV-D68:

- Wash hands often with soap and water for 20 seconds, especially after changing diapers
- Avoid touching eyes, nose and mouth with unwashed hands
- Avoid kissing, hugging and sharing cups or eating utensils with people who are ill
- Disinfect frequently touched surfaces, such as toys and doorknobs, especially if someone is sick;
- Stay home when feeling sick and obtain consultation from your health care provider.

Health care professionals should be aware that EV-D68 is one of many causes of viral respiratory illness and should report clusters of severe unexplained respiratory illness (e.g. involving ICU hospitalization) to their local public health department. During the summer and fall, testing of children with severe respiratory illness for viral pathogens including enterovirus is recommended, if a bacterial etiology is not readily identified. Available commercial PCR tests can detect enteroviruses. Results are commonly reported as “entero-rhinovirus” or “human rhinovirus/enterovirus”. Most laboratories do not perform enterovirus strain typing. If enterovirus is confirmed in an ICU-hospitalized individual, health care providers can contact their local health department to request typing of specimens at CDC.

Local health departments should enter severe respiratory disease outbreaks during this time period of EV-D68 circulation into the Illinois Department of Public Health’s (IDPH) Outbreak reporting system (ORS) if they meet the following criteria:

- Outbreak is occurring prior to October 20, 2014, and
- Multiple cases of severe respiratory illness due to enterovirus in a pediatric ICU, or
- Multiple cases of hospitalized individuals with respiratory illness from congregate settings, like developmentally disabled facilities

If a facility has identified enterovirus as the cause of severe respiratory illness, the Local Health Department (LHD) should consult with IDPH’s Communicable Disease Control Section (217-782-2016) personnel regarding strain testing at CDC. The LHD can collect a line list and complete the attached data collection form from hospital personnel. IDPH PCR panels do not include enterovirus and enteroviral typing is not available at the IDPH laboratory.