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Public Health Advisory

Enterovirus D68 (EV-D68)

September 10, 2014

Situation Update

In August 2014, hospital officials in Kansas City, Missouri (MO) and Chicago, Illinois (IL) notified CDC of an increase in severe respiratory illness among children seen in the emergency rooms and admitted to the hospital pediatric intensive care units.

- Specimens initially tested positive for rhinovirus and enterovirus. CDC did further testing and identified enterovirus D68 (EV-D68) in specimens from patients in both hospitals in Kansas City and Chicago.
- EV-D68 was identified in 19 of 22 specimens from Kansas City, and in 11 of 14 specimens from Chicago.
- CDC is working closely with MO, IL and other state health departments as they continue to investigate suspected clusters of respiratory illness in other facilities.
- Hospital admissions for severe respiratory illness among children in the Kansas City and Chicago hospitals are higher than expected for this time of year. Several states are also investigating similar clusters of severe respiratory illness, possibly due to EV-D68.
- CDC reported on September 8, 2014, that 19 of 25 specimens submitted by Children's Hospital Colorado tested positive for EV-D68. The Colorado Department of Public Health reported that there was an increase in pediatric patients with severe respiratory illness and asthma exacerbation.

The County of Riverside Department of Public Health is monitoring the situation and will provide updated guidance as additional information becomes available.

Enterovirus D68

- EV-D68 infections are thought to occur less commonly than infections with other enteroviruses.
- EV-D68 was first identified in California in 1962. Compared with other enteroviruses, EV-D68 has been rarely reported in the United States.

- Enteroviruses are associated with various clinical symptoms, including mild respiratory illness, febrile rash illness, and neurologic illness. Cases may not be febrile. EV-D68 primarily causes respiratory illness, although the full spectrum of disease remains unclear.

Guidelines for Healthcare Providers

Healthcare Providers should:

- Report cases and clusters of severe respiratory illnesses to the County of Riverside Department of Public Health Disease Control. Business hours: (951) 358-5107. After hours: (951) 782-2974 (ask for the Public Health Second Call Duty Officer).
- Be aware of EV-D68 as a potential cause of clusters of severe respiratory illness, particularly in young children and children with pre-existing conditions such as asthma.
- Consider laboratory testing of respiratory specimens for enteroviruses when the cause of infection in severely ill patients is unclear. Questions on collection or submission of specimens should be directed to the Public Health laboratory at 951-358-5070.

Infection Control

- Standard and contact precautions are recommended for patients with enterovirus infections. However, since EV-D68 is predominantly a respiratory virus, droplet precautions may also be considered.
- Health care personnel who are ill or suspect that they might have a viral respiratory illness should follow their health care facility policy concerning work attendance.
- The presence of fever is not an effective question for screening visitors for illness. Thus facilities experiencing an outbreak of EV-D68, or an uptick in viral respiratory illnesses, should review their policies on visitors under 16 years of age.

Laboratory Testing

- In children under the age of 18 years with severe respiratory illness, especially with wheezing, who are admitted to a PICU, respiratory specimens (e.g., nasopharyngeal swabs, throat swabs, endotracheal aspirates) should be collected and sent for polymerase chain reaction (PCR) testing for multiple viral pathogens, including influenza, rhinovirus and/or enterovirus.
- Specimens that test positive for rhinovirus or enterovirus by PCR at a commercial or hospital laboratory should be sent to Riverside County Public Health Laboratory. The public health laboratory will forward all rhinovirus/enterovirus positive specimens to the CDPH Viral and Rickettsial Disease Laboratory for further characterization. Specimens should be accompanied by the Enterovirus D68 Surveillance Submittal form available at <http://www.rivco-diseasecontrol.org/Programs/HealthCareProvidersSection.aspx>.