



# Hot Tips

A Service of Ventura County Public Health Department

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Please copy and distribute to ALL physicians at your location.

## ***Health Advisory: Enterovirus D68 (EV-D68) Causing Severe Pediatric Respiratory Illness***

In mid-August, the CDC received reports of an increased number of cases of severe respiratory illness in children in two separate clusters occurring in Kansas City, Missouri and Chicago, Illinois (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm63e0908a1.htm>). Some children have required admission to pediatric intensive care units (PICU). Most hospitalized patients are less than five years of age, although some have been adolescents, and most have a history of asthma.

### **Clinical Presentation**

Patients have presented with wheezing or difficulty breathing with hypoxia. Of note, only ~20% of patients have been febrile. Chest radiographs frequently show perihilar infiltrates, often with atelectasis. Several patients have required mechanical ventilation or bilevel positive airway pressure ventilation; one has required extracorporeal membrane oxygenation (ECMO). Initial testing at hospitals identified enterovirus or rhinovirus. Subsequent testing at CDC identified enterovirus D68 (EV-D68).

Enteroviruses are associated with various clinical symptoms, including mild respiratory illness, febrile rash illness, and neurologic illness. EV-D68 primarily causes respiratory illness, although the full spectrum of disease remains unclear. Since the original isolation of EV-D68 in California in 1962, EV-D68 has been reported rarely in the United States; the National Enterovirus Surveillance System received 79 EV-D68 reports during 2009–2013. Small clusters of EV-D68 associated with respiratory illness were reported in the United States during 2009–2010.

In California, influenza-like illness (ILI) activity, monitored through the outpatient Influenza-like Illness Surveillance Network (ILINet), has shown a mild increase in activity typical for this time of year when school returns to session. Likewise, laboratory data have shown an increase in detections of rhinovirus (RhV) and/or enterovirus (EV) in both northern and southern California, also consistent with patterns observed in previous fall seasons. In contrast to Missouri and Illinois, the California Department of Public Health (CDPH) has not received reports of clusters of severe respiratory illness in young children or in other populations or settings.

### **Specimen Collection and Testing**

- In children under the age of 18 years with severe respiratory illness, especially with wheezing, and 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 (RhV) and/or enterovirus (EV). If this testing is not available through your commercial or hospital laboratory, specimens should be sent to Ventura County Public Health Laboratory (VCPH Lab).
- Specimens that test positive for RhV or EV by PCR at a commercial or hospital laboratory should be sent to the VCPH Lab, which will be forwarded to the California Department of Public Health for further characterization.

#### **Communicable Disease Office**

2240 E. Gonzales Road, Suite 140, Oxnard, California 93036 (805) 981-5201 FAX (805) 981-5200

- While EV-D68 is primarily associated with respiratory illnesses, if a patient with a non-respiratory syndrome (such as a neurologic syndrome) tests positive for RhV/EV, further testing of that specimen should occur.
- If you have any questions, contact the Public Health Laboratory at 981-5131.

### **Treatment for Enterovirus D68**

There are no available vaccines or specific treatments for EV-D68, and clinical care is supportive. Many patients respond to therapy used in the treatment of acute asthma.

### **Reporting Clusters or Outbreaks of Severe Respiratory Illness**

Providers should be vigilant for and report to Ventura County Public Health (805-981-5201) any clusters or outbreaks of severe respiratory illness, regardless of the setting where they occur or the age group involved. Outbreak surveillance and testing of specimens provides an opportunity to identify circulating viruses and inform possible control strategies.

Also, please note, the Communicable Disease Office address has changed from Suite 220 to Suite 140. Please see below. Thank you.