



# COMMONWEALTH of VIRGINIA

## Department of Health

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### Emerging Infections Update: Enterovirus D68

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Dear Colleague:

Each fall, as children return to school, we expect to see increases in visits to health care providers for a wide variety of respiratory illnesses—including but not limited to influenza, rhinoviruses, adenoviruses and other pathogens. A recent article from the Centers for Disease Control and Prevention (CDC) and reports from the media have described increases in clusters of respiratory illnesses caused by enterovirus D68 (EV-D68) among pediatric patients, particularly in the Midwest. Some illnesses have been severe, requiring admission to intensive care units. To date, EV-D68 has not been confirmed in Virginia, however we want to be sure you are fully aware should you encounter similar cases.

Enteroviruses are common and can cause a wide spectrum of illness. Over 100 types of enterovirus have been identified. EV-D68 is unique among the enteroviruses because it has properties of both enteroviruses and rhinoviruses. While EV-D68 infections primarily cause respiratory illness, the full spectrum of disease remains unclear. Since EV-D68 was first isolated in 1962, illnesses caused by the virus have been rare, but EV-D68 has been identified as an emerging respiratory pathogen.<sup>1</sup> A [2011 article](#)<sup>2</sup> reported that EV-D68 is associated with outbreaks of respiratory illness severe enough to require hospitalization, and in some cases, might contribute to patient death. New-onset wheezing or asthma exacerbations were notable symptoms. A [CDC report](#)<sup>3</sup> published yesterday also found EV-D68 in pediatric patients with a previous history of asthma or wheezing, although some patients had no underlying respiratory illness. Fever was present in only one-fourth or fewer of the patients.

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<sup>1</sup> Tokarz R, Firth C, Madhi SA et al. Worldwide emergence of multiple clades of enterovirus 68. *J Gen Virol*. 2012. 93:1952-8. Available at [http://vir.sgmjournals.org/content/93/Pt\\_9/1952.long](http://vir.sgmjournals.org/content/93/Pt_9/1952.long)

<sup>2</sup> CDC. Clusters of acute respiratory illness associated with human enterovirus 68 — Asia, Europe, and United States, 2008–2010. *MMWR*. 2011. 60; 1301-1304. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6038a1.htm>

<sup>3</sup> CDC. Severe respiratory illness associated with enterovirus D68 – Missouri and Illinois, 2014. *MMWR*, 2014, 63; early release. Available at <http://www.cdc.gov/mmwr/pdf/wk/mm63e0908.pdf>

Our recommendations follow:

- Consider EV-D68 as one of many causes of viral respiratory disease.
- Report clusters of unexplained respiratory illness to the local health department ([www.vdh.virginia.gov/LHD/index.htm](http://www.vdh.virginia.gov/LHD/index.htm)). The local health department will work with you to evaluate the situation and to facilitate laboratory testing at the state public health laboratory (Division of Consolidated Laboratory Services, DCLS), if indicated.
- Follow appropriate infection control recommendations.
  - EV-D68, like other enteroviruses, appears to spread by close contact with infected people. Standard precautions should always be used for all patients and contact and droplet precautions should be added for hospitalized patients suspected to potentially have this infection.
  - Handwashing with soap and water is preferred for these viruses, and attention to environmental cleaning using standard disinfectants, including bleach solutions, is recommended.
  - Discourage visitors from entering a medical facility if they have any illness and remind them to practice good hand hygiene upon entering and leaving patient rooms.
- Be familiar with laboratory testing recommendations.
  - Test for the more common respiratory pathogens, like influenza, first. Specimens can be tested for enteroviruses at commercial or clinical diagnostic laboratories, but the test kits are only specific enough to report positive results as "entero-rhinovirus" or "human rhinovirus/enterovirus."
  - Contact your local health department to discuss the feasibility of testing patients, especially those with more severe illness or those involved in an outbreak, with more specificity at a public health laboratory (DCLS and/or CDC). A nasopharyngeal specimen collected using a polyester (Dacron) swab with an aluminum shaft will be needed, and it is generally best if collected within 72 hours of illness onset.
- Encourage all patients and their caregivers to take everyday steps to prevent the spread of respiratory viruses.
  - Cover your nose and mouth with a tissue when you cough or sneeze. This will block the spread of droplets from your mouth or nose that could contain germs.
  - Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.
  - Avoid touching your eyes, nose, and mouth. Germs spread this way.
  - Try to avoid close contact with sick people.

- Disinfect frequently touched surfaces, such as toys and doorknobs, especially if someone is sick.
- If you or your child gets sick with a respiratory illness, limit contact with others as much as possible to help prevent spreading illness. Stay home (or keep your child home) for at least 24 hours after fever is gone except to seek medical care or for other necessities. Fever should be gone without the use of a fever-reducing medicine.
- Take steps to ensure optimal control of asthma in children.

If you have questions or need additional information, please contact your local health department ([www.vdh.virginia.gov/LHD/index.htm](http://www.vdh.virginia.gov/LHD/index.htm)).

At this time of year, we would be remiss if we did not encourage you to get your annual influenza vaccine and to promote annual flu vaccination for your staff and your patients. Influenza vaccination still is the best tool we have to prevent influenza. As you know, annual influenza vaccination is recommended for everyone 6 months of age and older. Flu vaccine is especially important for those with chronic medical conditions, healthcare workers, and caregivers of infants under 6 months of age. Pregnant women should receive an annual flu shot during pregnancy to protect both themselves and their babies.

We sincerely thank you for your ongoing commitment to your patients and the public's health.

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