

CONTAGIOUS COMMENTS

Department of Epidemiology

EPI ALERT: NEW OUTBREAK OF ENTEROVIRUS CNS DISEASE

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Who may be affected

- All Children's Hospital Colorado team members.

What's going on

- CHCO is seeing an increase in enterovirus (EV) infections with neurological complications. Since March 2018 we have had 12 patients diagnosed with invasive EV infections.
- Nine of these patients had samples sent to the Center of Disease Control and Prevention (CDC) for testing and 6 were identified as EV-A71. To date, no patients this year have tested positive for EV-D68, the EV serotype associated with the large outbreak of respiratory disease and acute flaccid myelitis seen in 2014.
- EV-A71 is one of many types of circulating EVs and can cause a variety of disease including asymptomatic infections, hand, foot, and mouth disease (HFMD), and severe neurologic disease including aseptic meningitis, encephalitis, acute flaccid myelitis, and cardiopulmonary collapse (due to brainstem encephalitis).
- While EV-A71 is relatively rare in the United States, EV-A71 has caused large outbreaks of HFMD, especially in children, in Asia. In 2003 and 2005, a total of 16 children in Colorado with central nervous system infection due to EV-A71 were identified. These children presented with either fever, meningitis, encephalitis, acute flaccid myelitis, and/or pulmonary edema with cardiac dysfunction. Four patients had persistent neurologic deficits and one patient died during these outbreaks.

What you need to do

- EV-A71 is often not detected in the CSF by PCR. Providers should order separate EV PCRs of CSF, throat, and rectal specimens simultaneously in children suspected of having severe EV disease. Providers should place a patient on droplet precautions if there is concern for EV disease.
- If a MEP (meningitis-encephalitis panel) is ordered on the CSF of a patient with suspected EV disease and is negative, a repeat, single-plex EV PCR does NOT need to be ordered as EV is included on the MEP.
- Patients who have a positive CSF, throat, rectal, or blood specimen positive for EV should remain on droplet precautions for the duration of their hospitalization.

Where can I get more information:

- More information is available in the Health Alert Network (HAN) issued by the CPDHE on June 5, 2018.
- Previous outbreak in Colorado: Perez-Velez, CM, et al. "Outbreak of Neurologic Enterovirus 71 Disease: A Diagnostic Challenge." *Clinical Infectious Disease* 2007;45:950-7.

Where to go for updated information

- Look to [MyChildrensColorado](#) for updates.

Who to contact with questions or concerns

- Please contact Epidemiology and/or Infectious Disease if you have questions.

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Please return your E-mail address to: Carolyn Brock, Children's Hospital Colorado, Epidemiology – Box B276, 13123 E. 16th Avenue, Aurora, CO 80045 or
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Thank you for your interest in our publication.

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