



Health Alert Network

Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

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The pages that follow contain information critical to protecting the health of your patients and the citizens of Colorado.

HAN UPDATE

Number of pages including cover: 4

Subject: **Update - Neurologic complications associated with enterovirus A71 infection in children**

Message ID: 6/27/2018 10:30:00 AM

Recipients: HAN Community Members.

From: TRI-COUNTY HEALTH DEPARTMENT

Adams, Arapahoe and Douglas County, Colorado

Recipient Instructions: **Tri-County Health Department is forwarding you the attached HAN. You may have already received this broadcast if you are on the CDPHE distribution list, however, we wanted to ensure you did not miss this important information. No response is required.**

You have received this message based upon the information contained within our Health Alert Network Notification System. If you have a different or additional e-mail or fax address that you would like us to use, or if you have additional questions, call 720-200-1477.

Categories of Health Alert Network Messages:

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Info Service/Public Health Brief: Provides general information that is not necessarily considered to be of an emergent nature.

You may download a copy of this HAN from the TCHD website at
<http://www.tchd.org/259/Health-Alert-Network>



COLORADO
Department of Public
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

HEALTH ALERT NETWORK BROADCAST

MESSAGE ID: 06262018 14:45

FROM: CO-CDPHE

SUBJECT: HAN Update - Neurologic complications associated with enterovirus A71 infection in children

RECIPIENTS: Local Public Health Agencies / IPs / Clinical Labs / EDs / ID Physicians / Coroners

RECIPIENT INSTRUCTIONS: Local Public Health Agencies - Please forward to healthcare providers.

HEALTH UPDATE | Neurologic complications associated with enterovirus A71 infection in children

June 26, 2018

Health care providers: Please distribute widely in your office

Key points

- The Colorado Department of Public Health and Environment (CDPHE) continues to investigate cases of neurologic disease associated with enterovirus A71 (EV-A71) infection in children.
- As of June 22, CDPHE is aware of 13 confirmed cases of severe neurologic disease in children infected with EV-A71. This includes cases of meningitis, encephalitis, and acute flaccid myelitis (AFM) as well as children experiencing myoclonus (abnormal muscle jerking) and ataxia (loss of balance). Cases are all under age 3 years with no underlying medical conditions. Symptoms include fever, irritability, myoclonus, ataxia, rash, weakness, vomiting, and diarrhea.
- Please consider collecting throat, rectal, and cerebrospinal fluid (CSF) samples from children with aseptic meningitis, encephalitis, or other central nervous system infections for enteroviral PCR testing. EV-A71 is often not detected by PCR in CSF, so CDPHE recommends simultaneous testing from all three sites.
- Please report all cases of meningitis, encephalitis, AFM, or other neurologic complications in patients who test positive for enterovirus (EV) to CDPHE. This includes patients with symptoms of myoclonus or ataxia in the setting of a febrile illness and a positive EV test.

Background information

CDPHE continues to investigate cases of severe neurologic disease associated with EV-A71 infection in children.

Following distribution of a HAN (<https://drive.google.com/file/d/18JiWXIKNXvM5IO44th4K8Je9VYnDsHeb/view>) on this topic on June 5, 2018, seven additional laboratory-confirmed cases have been identified. As of June 22, CDPHE is aware of 13 laboratory-confirmed cases of neurologic disease in children infected with children with EV-A71. Specimens from additional patients are awaiting confirmatory testing at CDC.

Of the 13 children who have tested positive for EV-A71, 12 had meningitis, 9 had encephalitis, and 3 had AFM. All EV-A71 cases had fever (median temperature 38.8 C, duration 4 days) and irritability. Other notable symptoms include ataxia (n=8), myoclonus (n=6), rash (n=6), weakness (n=5), diarrhea (n=4), hand, foot and mouth disease (HFMD) (n=3),

abnormal eye movements (n=2), and seizures (n=1). Parents described their child's symptoms as dizziness, wobbliness, and big, jerking movements that were worse at night. All children were under age 3, had no underlying medical conditions, and required hospitalization. So far, all children live in the Denver metropolitan area but cases may be more widespread.

While EV-A71 is one of many types of circulating EVs, it is relatively uncommon compared to other EVs; between 2014 - 2016 it was not reported as one of the 15 most frequently seen EVs. People with EV-A71 may be asymptomatic but can also present with a wide variety of illnesses including mild infections such as diarrhea, rashes, and HFMD. EV-A71 can also cause severe neurologic illness including aseptic meningitis, encephalitis, acute cardiac collapse (due to brainstem encephalitis), and AFM.

While EV-A71 is relatively rare in the United States, EV-A71 has caused large outbreaks of HFMD, especially in children in Asia, as well as outbreaks of severe neurologic disease. Colorado experienced outbreaks in 2003 and 2005: <https://www.ncbi.nlm.nih.gov/pubmed/17879907>. A 2017 outbreak in Barcelona, Spain, is described here: <https://www.ncbi.nlm.nih.gov/pubmed/28344164>.

Acute Flaccid Myelitis

EV infections, including EV-A71 infection, have previously been associated with AFM, a rare disorder with a presentation similar to poliomyelitis with limb weakness, variable cranial nerve involvement, and MRI evidence of gray matter involvement in the spinal cord. There have been four confirmed cases of AFM in Colorado during 2018; three of these cases have been reported since June and all three tested positive for EV-A71.

Recommendations / guidance

EV-A71 is often not detected in the CSF by PCR. Thus, CDPHE recommends physicians order enteroviral PCR of CSF, throat, and rectal specimens simultaneously in patients with neurological symptoms or CNS disease such as myoclonus, ataxia, meningitis, or encephalitis, especially if accompanied by a fever. If specimens are EV-positive, CDPHE can facilitate additional testing at CDC to confirm the presence of EV-A71. **Please report any patients with neurologic disease who are EV-positive to CDPHE at 303-692-2700. In addition, health care providers should continue to report all patients suspected of having AFM, as it is a reportable condition in Colorado.**

Hospitals admitting EV-positive patients may want to consider placing those patients under droplet precautions.

Providers should recommend that children diagnosed with HFMD be excluded from childcare if they have mouth sores *and* are drooling uncontrollably. Children with a fever and rash should also be excluded from childcare or summer camps until 24 hours after the fever ends. For more information, please visit

<https://www.colorado.gov/cdphe/infectious-disease-guidelines-schools-and-childcare-settings>. To reduce transmission, advise patients and caregivers to wash their hands often with soap and water (especially after changing diapers and using the toilet), to clean and disinfect frequently touched surfaces (including toys), and to avoid close contact such as kissing, hugging, or sharing eating utensils or cups with people with HFMD.

For more information

- For the CHCO Bug Watch Report, please visit: <https://www.childrenscolorado.org/globalassets/healthcare-professionals/bug-watch.pdf>
- For the full article on U.S. EV surveillance from 2014-2016, visit: https://www.cdc.gov/mmwr/volumes/67/wr/mm6718a2.htm?s_cid=mm6718a2_e
- For the publication on the 2003 and 2005 outbreaks of EV-A71 in Colorado, visit: <https://www.ncbi.nlm.nih.gov/pubmed/17879907>
- For the publication on a 2017 outbreak in Barcelona, Spain, visit: <https://www.ncbi.nlm.nih.gov/pubmed/17879907>
- For more information about AFM, visit:
 - <https://www.colorado.gov/pacific/cdphe/AFM>
 - <https://www.cdc.gov/acute-flaccid-myelitis/index.html>

CDPHE Disease Reporting Line: 303-692-2700 or 303-370-9395 (after hours)

