



## COLORADO

Department of Public  
Health & Environment

HEALTH ALERT NETWORK BROADCAST

MESSAGE ID: 09262014 17:40

FROM: CO-CDPHE

SUBJECT: HAN Advisory - Acute Neurologic Illness with Focal Limb Weakness of Unknown Etiology in Children

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

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

### HEALTH ADVISORY

Acute Neurologic Illness with Focal Limb Weakness of Unknown Etiology in Children  
9/26/14

**\*\*\*\*Health care providers: Please distribute widely in your office\*\*\*\***

#### KEY POINTS:

- ≡ On September 19, 2014 CDPHE sent a HAN to Colorado providers to alert them of 9 cases of acute neurologic illness in Colorado that were being investigated by CDPHE, Children's Hospital Colorado, and the Centers for Disease Control and Prevention.
- ≡ Today the Centers for Disease Control and Prevention has distributed the information below to all states. This information is consistent with what had been previously distributed in Colorado, but includes a more specific description of cases to be reported, and includes some additional detail about the 9 cases. Please review this updated information.
- ≡ Patients who meet the following case definition should be reported to the CDPHE Communicable Disease Branch at 303-692-2700 or after hours at 303-370-9395.
  - Patients  $\leq 21$  years of age with:
    - 1) Acute onset of focal limb weakness occurring on or after August 1, 2014;  
AND
    - 2) An MRI showing a spinal cord lesion largely restricted to gray matter.

#### BACKGROUND INFORMATION:

The CDPHE, Children's Hospital Colorado, and CDC are investigating nine cases of acute neurologic illness among pediatric patients. The cases were identified during August 9-September 17, 2014 among children aged 1-18 years (median age 10 years). Most of the children were from the Denver metropolitan area. All were hospitalized. Common features included acute focal limb weakness and specific findings on magnetic resonance imaging (MRI) of the spinal cord consisting of non-



enhancing lesions largely restricted to the gray matter. In most cases, these lesions spanned more than one level of the spinal cord. Some also had acute cranial nerve dysfunction with correlating non-enhancing brainstem lesions on MRI. None of the children experienced altered mental status or seizures. None had any cortical, subcortical, basal ganglia, or thalamic lesions on MRI. Most children reported a febrile respiratory illness in the two weeks preceding development of neurologic symptoms. In most cases, cerebrospinal fluid (CSF) analyses demonstrated mild-moderate pleocytosis (increased cell count in the CSF) consistent with an inflammatory or infectious process. CSF testing to date has been negative for West Nile virus and enteroviruses, including poliovirus. Nasopharyngeal specimens were positive for rhinovirus/enterovirus in six out of eight patients that were tested. Of the six positive specimens, four were typed as EV-D68, and the other two are pending typing results. Testing of other specimens is still in process. Eight out of nine children have been confirmed to be up to date on polio vaccinations. Epidemiologic and laboratory investigations of these cases are ongoing.

The United States is currently experiencing a nationwide outbreak of EV-D68 associated with severe respiratory disease. The possible linkage of this cluster of neurologic disease to this large EV-D68 outbreak is part of the current investigation. CDC is seeking information about other similar neurologic illnesses in all states, especially cases clustered in time and place. CDC has particular interest in characterizing the epidemiology and etiology of such cases.

### **RECOMMENDATIONS:**

Patients who meet the following case definition should be reported to the CDPHE Communicable Disease Branch at 303-692-2700 or after hours at 303-370-9395.

Patients  $\leq 21$  years of age with

- 1) Acute onset of focal limb weakness occurring on or after August 1, 2014;
- AND
- 2) An MRI showing a spinal cord lesion largely restricted to gray matter.

CDPHE will report patients meeting the case definition to CDC using a brief patient summary form ([www.cdc.gov/non-polio-enterovirus/investigation/](http://www.cdc.gov/non-polio-enterovirus/investigation/)).

Providers treating patients meeting the above case definition should consult with CDPHE Communicable Disease Branch at 303-692-2700 for laboratory testing of stool, respiratory, and cerebrospinal fluid specimens for enteroviruses, West Nile virus, and other known infectious etiologies. Confirmation of the presence of EV-D68 currently requires typing by molecular sequencing, which is only available at CDC.

### **FOR MORE INFORMATION:**

Please visit the CDC enterovirus website (<http://www.cdc.gov/non-polio-enterovirus/>) for general information about enterovirus infections, including EVD-68, and for up-to-date guidance about infection control measures. For information about West Nile Virus, please visit the CDC West Nile Virus website (<http://www.cdc.gov/westnile/>).

