



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

September 30, 2014

Dear Colleagues

On September 26, the CDC reported the investigation of nine cases of acute neurologic illness among pediatric patients in Colorado. Common features included acute focal limb weakness and specific findings on magnetic resonance imaging (MRI) of the spinal cord.

The cases were identified during August 9–September 17, 2014 among children aged 1–18 years (median age 10 years), coincident with the increase in respiratory illness associated with enterovirus D68 (EV-D68). All nine cases were hospitalized. Some of the cases had EV-D68 identified from nasopharyngeal (NP) swabs.

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.

Maryland has confirmed the presence of EV-D68 respiratory illnesses but has not confirmed any cases of acute neurologic illnesses associated with EV-D68.

To help better assess this situation, we ask clinicians to please:

Immediately report to local health department any knowledge of patients meeting the following case definition:

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.

Your local health department will provide consultation about laboratory testing of stool, respiratory, and cerebrospinal fluid specimens for enteroviruses, West Nile virus, and other known potential infectious etiologies from a patient meeting this case definition. If testing is determined to be indicated, specimens should include: nasopharyngeal, CSF (cerebrospinal fluid), and stool.

Additional clinical information about the acute neurologic illness cases includes:

- 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 enteroviruses, including poliovirus and West Nile virus.
- 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.

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 poliovirus, please visit the CDC poliovirus website (<http://www.cdc.gov/vaccines/vpd-vac/polio/in-short-both.htm>). For information about West Nile Virus, please visit the CDC West Nile Virus website (<http://www.cdc.gov/westnile/>).

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The CDC Health Advisory, including more detail on the clinical presentation and laboratory results found in these patients, can be found here: <http://emergency.cdc.gov/HAN/han00370.asp>

Sincerely,



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