Health Guidance:

Acute Flaccid Myelitis (AFM)

November 26, 2018

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SUBJECT: **Acute Flaccid Myelitis (AFM)**

Summary
The Missouri Department of Health and Senior Services (DHSS) in collaboration with local public health agencies (LPHAs) in Missouri are working closely with the Centers for Disease Control and Prevention (CDC) to increase awareness of, and investigate persons suspected of having, acute flaccid myelitis (AFM). Healthcare providers are encouraged to maintain vigilance for cases of AFM among all age groups of patients and continue to promptly report all cases to the relevant LPHA, or to DHSS. The purpose of this document is to provide guidance for healthcare providers on reporting AFM, update current clinical information, and describe clinical specimens needed from all patients suspected of having AFM. The prompt reporting and investigation of AFM cases will help public health authorities monitor the occurrence of AFM in Missouri and allow better understanding of the factors associated with this illness.

Background
AFM is a rare condition that affects the nervous system, specifically the spinal cord, causing weakness in one or more limbs. AFM or neurologic conditions like it have a variety of causes such as viruses and environmental toxins. Since 2014, CDC has received information on a total of 440 confirmed cases of AFM from across the United States; most of the cases have occurred in children. So far in 2018, 116 confirmed cases of AFM have been reported from 31 states, which includes 1 confirmed case from Missouri. The evaluation and case classification of additional patients under investigation (PUIs) for AFM is ongoing. Even with an increase in cases since 2014, AFM remains a very rare condition. Less than one in a million people in the United States get AFM each year.

AFM is characterized by sudden weakness in one or more arms or legs, along with loss of muscle tone and decreased or absent reflexes. In addition, in some cases cranial nerve dysfunction may occur resulting in facial weakness, difficulty swallowing, or drooping of the eyes. In some patients, in addition to limb weakness, bladder or bowel incontinence has been reported. Numbness or tingling is rare in people with AFM, although some have reported pain in their arms or legs. AFM can lead to respiratory failure, and in rare cases the illness can be fatal. AFM can be difficult to diagnose because it is clinically similar to other neurologic diseases, like transverse myelitis and Guillain-Barre syndrome (GBS). AFM is usually characterized by chronically depressed reflexes, and sensory findings are not as discrete as in transverse myelitis, or progressively ascending as in GBS. Magnetic resonance imaging (MRI) lesions in AFM patients are more often confined to the gray matter than lesions associated with transverse myelitis, and can also include nerve root enhancement and cranial nerve involvement.

Recommendations
Healthcare providers should continue to promptly report all patients that meet the clinical criterion for AFM (acute onset of flaccid limb weakness) to their LPHA, or to

DHSS at 573/751-6113 or 800/392-0272 (24/7). Patients suspected of having AFM should be reported regardless of whether they test positive or negative for an enterovirus. Clinical information, test results, and biological specimens from PUI for AFM will be requested. DHSS will help coordinate the submission of the information and biological specimens to CDC for evaluation and testing. The information submitted to CDC will be reviewed by several subject matter experts, and a case classification will be made in accordance with the nationally standardized case definition for AFM (https://www.cdc.gov/acute-flaccid-myelitis/hcp/case-definition.html). The review and final case classification will typically be completed within 4 weeks from submission. The case classification is used for surveillance purposes and should not interfere with the differential diagnosis or final clinical diagnosis or treatment of the patient.

The clinical information, test results, and biological specimens requested for any PUI for AFM include the following **regardless of specific laboratory or MRI results**:

Clinical Information and Test Results:

- AFM patient summary form (https://www.cdc.gov/acute-flaccid-myelitis/hcp/data.html)
- Admission and discharge notes
- Neurology and infectious disease consult notes
- MRI reports AND images
- Complete vaccination history, and
- Laboratory test results.

Laboratory Testing: Healthcare providers should collect the following specimens from PUI for AFM as early as possible in the course of illness, preferably on the day of onset of limb weakness. DHSS and/or the LPHA will assist in coordinating the submission of specimens to CDC for testing. Specimens to collect include:

- CSF; and
- Serum; and
- A nasopharyngeal (NP) or oropharyngeal (OP) swab; and
- Stool

Please note: Collection of stool is required for AFM surveillance. Two stool specimens should be collected at least 24 hours apart early during the course of illness to rule out poliovirus infection.

Pathogen-specific testing for diagnostic purposes should continue at the hospital or the Missouri State Public Health Laboratory (MSPHL).

Questions should be directed to DHSS' Bureau of Communicable Disease Control and Prevention at 573/751-6113 or 800/392-0272 (24/7).

Additional Information and Guidance from CDC:

- AFM Surveillance: https://www.cdc.gov/acute-flaccid-myelitis/index.html
- Council of State and Territorial Epidemiologists (CSTE) Standardized Case Definition for AFM: https://www.cdc.gov/acute-flaccid-myelitis/hcp/case-definition.html
- AFM Investigation: https://www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html
- Information and Guidance for Clinicians and Health Departments: https://www.cdc.gov/acute-flaccid-myelitis/hcp/index.html
- AFM Resources and References: https://www.cdc.gov/acute-flaccid-myelitis/references.html