Nebraska Department of Health and Human Services

Health Alert Network

UPDATE

October 26, 2023

Acute Flaccid Myelitis

Background - Acute Flaccid Myelitis (AFM)
AFM is an uncommon but serious neurological condition characterized by acute onset flaccid limb weakness with no other known cause, and lesions restricted to the spinal cord's gray matter (although some white matter can be involved). In the past 5 years, only 6 cases have been reported in Nebraska, however, there has been an increasing number nationwide since 2014. Nationally, there have been 734 confirmed cases since CDC began tracking AFM in August of 2014. As of September 5, 2023, there have been 8 confirmed cases in 2023 out of 27 reports of patients under investigation (PUIs). The NE state health department is re-focusing its attention on timely reporting of the diagnosed AFM cases in the state.

Case Definition
Confirmed case: Meets clinical criteria with confirmatory laboratory/imaging evidence or meets other classification criteria.
Probable case: Meets clinical criteria with presumptive laboratory/imaging evidence.
Suspect case: Meets clinical criteria with supportive laboratory/imaging evidence and available information is insufficient to classify case as probable or confirmed.

Clinical Presentation
An illness with onset of diminished muscle tone (limp, hanging loosely, not spastic or contracted limb weakness) and loss of reflexes are the common clinical symptoms. Most people have preceding febrile illness 1-2 weeks prior to flaccid limb weakness. Respiratory or gastrointestinal symptoms such as fever, rhinorrhea, cough, vomiting, and diarrhea may be noted frequently. Cranial nerve abnormalities such as facial or eyelid droop, difficulty in swallowing or speaking, and hoarse or weak cry can be present in some people while some patients may also notice stiff neck, headache, or pain in arms or legs.
AFM clinically presents like poliomyelitis, but no poliovirus has been identified in AFM cases. AFM may also resemble: Synovitis, Neuritis, Limb injury, Guillain-Barre syndrome (GBS), Transverse myelitis, Stroke (including spinal stroke), Tumor, Acute cord compression, and Conversion disorder. Although no specific cause has been identified, the following viruses have been identified in AFM cases: Non-polio enteroviruses (EV-D68 and EV-A71), flaviviruses (West Nile virus, and Japanese encephalitis virus), herpesviruses, and adenoviruses. For information on how to evaluate please visit CDC's AFM Initial Evaluation website.

Laboratory/Imaging Criteria
MRI showing a spinal cord lesion in at least some gray matter and spanning one or more vertebral segments. This excludes patients with gray matter lesions in the spinal cord from previously physician diagnosed malignancy, vascular disease, or anatomic abnormalities.

Reporting & Lab Information

1. Recognize AFM early: Be on alert for patients meeting clinical and laboratory criteria mentioned above. Consider AFM on your differential diagnosis.
2. Report to LHD: Contact the LHD as soon as you identify a possible AFM case. Report patient information and compile clinical information.
3. Collect specimens: Collect Cerebrospinal fluid (CSF), serum, stool, and respiratory swabs, preferably on the day of limb weakness onset.
4. Coordination and care: Information and specimen collection will be sent to CDC for classification. Confirmed and probable cases are monitored for 1-year.

Classification will be relayed from the CDC to the local or state health department to the clinician. If your patient is a confirmed or probable AFM case, the local or state health department will conduct a long-term follow-up with the patient at 2, 6, and 12 months after onset of limb weakness. At 2 months follow-up, the local or state health department will need more documentation from the clinician, which can be found here: *https://www.cdc.gov/acute-flaccid-myelitis/hcp/data-collection.html*.

Alison Keyser Metobo
VPD Epidemiologist
PHONE: 402-471-0457

Timothy Tesmer, MD
Director/CMO Public Health
PHONE: 402-471-8566

Matthew Donahue, MD
State Epidemiologist
PHONE: 402-471-8566