Acute Flaccid Myelitis

In 2012, CDPH began receiving reports of patients with acute flaccid myelitis (AFM). Since 2012, there have been national and statewide increases in AFM cases every 2 years, including 2014, 2016, and 2018.

AFM patients are primarily children, although there have also been reported cases in adults. Symptoms typically include a preceding febrile respiratory illness followed by sudden onset of limb weakness and loss of muscle tone and reflexes. In addition to limb weakness, some patients have cranial nerve involvement and present with facial droop/weakness, difficulty moving the eyes, drooping eyelids, or difficulty with swallowing or slurred speech.

Although a definitive cause for AFM has not yet been established, many experts think it is due to infection with a non-polio enterovirus, such as EVD68. To better understand the potential causes, optimal treatment, and outcomes of AFM, CDPH is conducting enhanced surveillance for AFM cases.

All patients with onset of acute flaccid limb weakness and imaging criteria should be reported. AFM case classification will be assigned after review by a team of expert neurologists at CDC.

Clinical Criteria
- An illness with onset of acute flaccid* limb weakness

Imaging Criteria
- A magnetic resonance image (MRI) showing a spinal cord lesion in at least some gray matter** and spanning one or more vertebral segments, AND
- Excluding persons with gray matter lesions** in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

Case Classification

Confirmed: An illness with onset of acute flaccid* limb weakness, AND MRI showing spinal cord lesion largely restricted to gray matter** and spanning one or more spinal segments.
- Excluding persons with gray matter lesions** in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities AND
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

Probable: An illness with onset of acute flaccid* limb weakness AND MRI showing spinal cord lesion where gray matter** involvement is present but predominance cannot be determined.
- Excluding persons with gray matter lesions** in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities AND
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

Suspect: An illness with onset of acute flaccid* limb weakness AND MRI showing spinal cord lesion in at least some gray matter** and spanning one or more spinal segments.
- Excluding persons with gray matter lesions** in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities AND
- Available information is insufficient to classify case as probable or confirmed, AND
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

*Low muscle tone, limp, hanging loosely, not spastic or contracted.

**Normal or negative MRI imaging within the first 72 hours of limb weakness onset does not rule out AFM. Terms in the spinal cord MRI report such as “affecting mostly gray matter”, “affecting the anterior horn or anterior horn cells”, “affecting the central cord”, “anterior myelitis” or “poliomyelitis” would all be consistent with this terminology. If still unsure if this criterion is met, consider consulting the neurologist or radiologist directly.
Acute Flaccid Myelitis (AFM) Quicksheet

Reporting AFM cases
Clinicians should contact the patient’s local health department (LHD) to report cases who meet the clinical criteria and imaging criteria for AFM irrespective of laboratory results, using the AFM Patient Case Summary Form. The LHD must obtain CDPH approval for laboratory testing before submitting specimens to the CDPH Viral and Rickettsial Diseases Laboratory (VRDL). Specimens should not be sent to CDC. Please contact CDPH at 510-620-3737 for assistance with reporting or request for consultation.

Specimen Collection and Submittal
Collect specimens on suspect cases as early as possible in the course of illness, preferably on the day of onset of limb weakness, to increase the chance of virus detection. After CDPH approves laboratory testing, clinicians should complete the General Purpose Specimen Submittal Form for each individual specimen to send to CDPH VRDL:

- Nasopharyngeal AND oropharyngeal swabs (in viral transport media), or nasopharyngeal wash or aspirate (in sterile collection tube).
- CSF (2-3cc, if available, in sterile collection tube).
- Serum (acute and convalescent), collected prior to treatment with IVIG, (2-3 cc in red or tiger-top tube).
- Two stool specimens (two quarter-sized amounts in a sterile wide-mouth container) collected 24 hours apart.

Samples can be sent on dry ice or cold pack for delivery Monday through Friday to:

ATTN: Specimen Receiving
CDPH Viral and Rickettsial Diseases Laboratory 850 Marina Bay Parkway Richmond, CA 94804

For questions about shipping pre-approved specimens to the Viral and Rickettsial Disease Laboratory (VRDL) call: 510-307-8585.

Additional Resources
AFM Clinical Management