Acute Flaccid Myelitis Quicksheet

October 2025

Acute Flaccid Myelitis (AFM)

In 2012, CDPH began receiving reports of persons with acute flaccid myelitis (AFM). Since then, there have been statewide and nationwide increases in AFM cases noted in the summer and fall months of 2014, 2016 and 2018.

Persons with AFM are primarily children, although cases have also been reported 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, experts think many cases are due to preceding viral illnesses including non-polio enteroviruses (EV-D68, EV-A71), flaviviruses (West Nile virus, Japanese encephalitis virus), herpesviruses, and adenoviruses. To better understand the potential causes, optimal treatment, and outcomes of AFM, CDPH is conducting enhanced surveillance for AFM cases. Enhanced surveillance includes viral testing at CDPH Viral and Rickettsial Diseases Laboratory (VRDL) to identify causes of AFM.

The identification of a paralytic polio case in an unvaccinated person in New York in 2022 reinforces the need to also consider polio in patients with sudden onset of limb weakness, or AFM, especially if the patient is under-vaccinated and has had recent international travel to places where poliovirus is circulating.

Reporting AFM cases

1. Clinicians should report **any person with onset of acute flaccid limb weakness** (low muscle tone, limp, hanging loosely, not spastic or contracted) to the patient's local health department (LHD) regardless of laboratory testing or MRI results.

2. Clinicians should collect specimens for potential public health laboratory testing and order a spinal MRI as soon as possible. Specimens include serum, CSF, a nasopharyngeal swab, an oropharyngeal swab, and two stool specimens (collected 24 hours apart). Pathogen-specific testing should also continue at hospital laboratories as determined by the patient's clinical picture.

3. Work with the LHD to:

- complete the AFM Patient Case Summary Form;
- submit brain and spinal MRI reports;
- submit neurology consult notes; and
- submit specimens to the CDPH VRDL to hold while the LHD obtains CDPH approval for laboratory testing.

Please also report any person whose death certificate lists AFM as a cause of death or a condition contributing to death. Also report autopsy findings that include histopathologic evidence of inflammation involving the anterior horn of the spinal cord spanning ≥1 vertebral segment.

Contact CDPH at VPDreport@cdph.ca.gov or 510-620-3737 for assistance with reporting or request for clinical consultation.

Specimen Collection and Submittal

Collect specimens for suspect cases as **early as possible** in the course of illness, preferably on the day of limb weakness onset, to increase the chance of virus detection. Please work with your LHD to submit specimens to CDPH VRDL to hold while the LHD obtains CDPH approval for laboratory testing. Clinicians should electronically complete VRDL specimen forms for each individual specimen and include printed copies when shipping to CDPH VRDL.

Please collect and submit to VRDL all 5 of the following specimens:

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

Samples may be sent on dry ice or cold pack for receipt Tuesday through Friday to:
CDPH VRDL
ATTN: Specimen Receiving
850 Marina Bay Parkway
Richmond, CA 94804

For questions about specimen submittal or shipping to CDPH VRDL email VRDL.submittal@cdph.ca.gov or call 510-307-8585.

Specimen Testing

VRDL will perform molecular testing for enterovirus, rhinovirus, and adenovirus. VRDL will also perform serologic testing for West Nile virus during transmission season (May-December), St. Louis encephalitis virus (SLEV) (in counties with SLEV environmental detection), and Zika, Dengue, and Chikungunya viruses (if indicated by travel history). Results from these tests should not inform clinical management of patients because results may not be available in real time.

Infection Control

The recommendations for suspected or confirmed AFM cases are standard, contact and droplet precautions.

AFM Case Definition and Classification

Clinical Criteria

- An illness with onset of acute flaccid weakness (low muscle tone, limp, hanging loosely, not spastic or contracted) of one or more limbs ***AND***
- An illness with onset of acute flaccid weakness of one or more limbs ***AND***
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition (e.g. West Nile Virus, polio).

Laboratory/Imaging Criteria

Confirmatory laboratory/imaging evidence:

- MRI showing spinal cord lesion with predominant gray matter involvement* 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.

Presumptive laboratory/imaging evidence:
- MRI showing spinal cord lesion where gray matter involvement* is present but predominance cannot be determined ***AND***
- Excluding persons with gray matter lesions in the spinal cord resulting from physician-diagnosed malignancy, vascular disease, or anatomic abnormalities.

Supportive laboratory/imaging evidence:
- 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.

Other Classification Criteria

Autopsy findings including histopathologic evidence of inflammation largely involving the anterior horn of the spinal cord spanning one or more vertebral segments.

CDC assigns a case classification after review by a team of neurologists and should not be used to decide whether to report a patient**.** CDC's case classification is not meant to override a clinician's diagnosis, or the patient's treatment and rehabilitation plan.

Case Classifications

Confirmed:
- Meets clinical criteria with confirmatory laboratory/imaging evidence ***OR***
- Meets other classification criteria.

Probable:
- Meets clinical criteria with presumptive laboratory/imaging evidence.

Suspect:
- Meets clinical criteria with supportive laboratory/imaging evidence ***AND***
- Available information is insufficient to classify case as probable or confirmed.

Additional Resources
- AFM CDPH Webpage
- AFM CDC Clinical Management Webpage
- AFM AAP Patient Care Webpage
- AFM Patient Case Summary Form
- VRDL Specimen Shipping Guidelines and Forms

*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 gray matter spinal cord lesions. If still unsure that this criterion is met, then consider consulting the neurologist or radiologist directly.