California Department of Public Health – June 2019

Acute Flaccid Myelitis (AFM) Quicksheet

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 EV-D68. To better understand the potential causes, optimal treatment, and outcomes of AFM, CDPH is conducting enhanced surveillance for AFM cases.

Case Classification

An illness with onset of acute focal limb weakness; AND

- ***Confirmed:*** A magnetic resonance image (MRI) showing spinal cord lesion largely restricted to gray matter* and spanning one or more spinal segments.
- ***Probable:*** Cerebrospinal fluid (CSF) showing pleocytosis (white blood cell count >5 cells/mm3, may adjust for presence of red blood cells by subtracting 1 white blood cell for every 500 red blood cells present).

*Normal or negative MRI imaging within the first 72 hours of limb weakness onset does not rule out AFM. Terms used 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.

Reporting AFM cases

Clinicians should contact the patient's local health jurisdiction (LHJ) to report suspect cases, irrespective of laboratory results, using the AFM Patient Case Summary Form and to obtain approval for laboratory testing before submitting specimens to the CDPH Viral and Rickettsial Diseases Laboratory (VRDL). Specimens should not be sent to CDC.

For questions about surveillance, contact Cora Hoover (Cora.Hoover@cdph.ca.gov) and Cynthia Yen (Cynthia.Yen@cdph.ca.gov or 510-620-3987). After hours, please contact the patient's local health jurisdiction (LHJ).

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 virus detection.

Clinicians should complete the General Purpose Specimen Submittal Form and send it to the CDPH VRDL with the following samples:

- 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