

Acute Flaccid Myelitis added Jan 2016

BASIC EPIDEMIOLOGY

Infectious Agent

There are multiple infectious agents that can cause acute flaccid myelitis (AFM). At one time poliovirus was the most common cause of AFM. Adenoviruses, arboviruses, herpesviruses, enteroviruses, varicella zoster virus and many others may cause AFM.

Transmission

Dependent on the infectious agent

Incubation Period

Dependent on the infectious agent

Communicability

Although the underlying infection may be communicable, the condition of AFM is usually a rare complication.

Clinical Illness

Acute flaccid myelitis is a clinical syndrome characterized by focal limb weakness (weakness or paralysis in one or more extremities, but not generalized to the entire body) and abnormalities of the spinal cord gray matter on magnetic resonance imaging (MRI). Other symptoms may include facial weakness, abnormalities in eye movement, altered mental status, and seizures. AFM is a form of acute flaccid paralysis. AFM may follow an acute respiratory, gastrointestinal, or febrile illness.

DEFINITIONS

Clinical Case Definition

An illness with onset of acute focal limb weakness. Multiple etiologic agents may cause acute flaccid myelitis.

Laboratory Confirmation

- A magnetic resonance image (MRI) showing a spinal cord lesion largely restricted to gray matter* and spanning one or more spinal segments
- A specific pathogen is not needed to confirm the diagnosis.

*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.

Case Classifications

- **Confirmed:** An illness with onset of acute focal limb weakness AND laboratory confirmation.

- **Probable:** An illness with onset of acute focal limb weakness AND
 - Cerebrospinal fluid (CSF) with 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)

SURVEILLANCE AND CASE INVESTIGATION

Case Investigation

Local and regional health departments should investigate all reports of AFM. If an etiology is known and is a reportable condition (e.g., West Nile, varicella, or polio), the case should be investigated according to the etiology.

If the etiology is known and due to a non-reportable condition OR if the etiology is unknown, use this chapter for investigation purposes.

Case Investigation Checklist

- Confirm the clinical presentation of the patient.
- Ascertain what testing has been done, including lab testing, lumbar puncture, and MRI.
- Ask the treating physician, preferably the neurologist, to complete the *Acute Flaccid Myelitis: Patient Summary Form*.
 - EAIDB does NOT recommend that the LHD complete the form themselves.
 - Submit the *Acute Flaccid Myelitis: Patient Summary Form* to EAIDB.
- EAIDB will obtain approval from CDC for testing.
- Collect specimens to submit to CDC for testing.

Control Measures

Control measures will depend on the causative agent; however, proper hand hygiene will help in controlling spread. Standard precautions in healthcare facilities should be implemented.

Exclusion

Anyone with a fever should be excluded from work or school until 24 hours have passed fever-free without the use of an anti-fever medication. Anyone with diarrhea should be excluded from work or school until 24 hours have passed diarrhea-free without the use of an anti-diarrheal medication.

If the etiology is determined, there may be additional exclusion criteria that apply.

MANAGING SPECIAL SITUATIONS

Outbreaks

If an outbreak of AFM is suspected, notify EAIDB at (800) 252-8239 or (512) 776-7676.

REPORTING AND DATA ENTRY REQUIREMENTS

Provider, School & Child-Care Facilities, and General Public Reporting Requirements

Acute flaccid myelitis is not currently a reportable condition in and of itself. However, certain illnesses that cause AFM (e.g., polio, varicella, West Nile) may be reportable and should be reported according to Texas Administrative Code requirements for these conditions.

EAIDB requests that patients with suspected AFM be reported within one week to the local or regional health department or the Texas Department of State Health Services (DSHS), Emerging and Acute Infectious Disease Branch (EAIDB) at (800) 252-8239 or (512) 776-7676.

Local and Regional Reporting and Follow-up Responsibilities

Local and regional health departments should:

- Fax the *Acute Flaccid Myelitis: Patient Summary Form* as soon as possible to EAIDB. The form will be needed to facilitate lab testing with CDC.
 - Fax forms to **512-776-7616**
 - Forms should be faxed once enough information has been collected to establish that a patient meets probable or confirmed case status.
- Once the investigation is complete, fax or mail a completed *Acute Flaccid Myelitis: Patient Summary Form* within 30 days to EAIDB.
 - Fax forms to **512-776-7616** or mail to:
Infectious Disease Control Unit
Texas Department of State Health Services
Mail Code: 1960
PO Box 149347
Austin, TX 78714-9347

When an outbreak is investigated, local and regional health departments should:

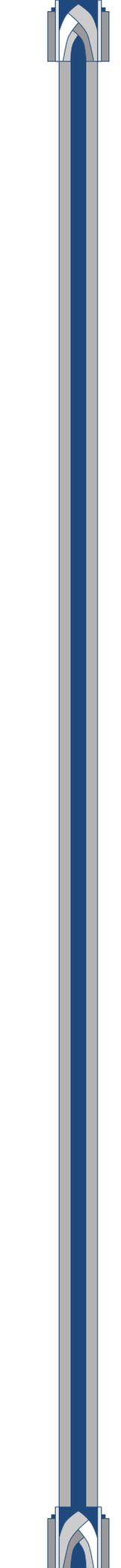
- Report outbreaks within 24 hours of identification to the regional DSHS office or to EAIDB at **512-776-7676**.

LABORATORY PROCEDURES

Clinicians treating patients meeting the AFM case definition should pursue laboratory testing of CSF, blood, serum, respiratory, and stool specimens for enteroviruses, West Nile virus, and other known infectious etiologies at their usual clinical and reference laboratories. Clinicians may contact the local health department and/or DSHS for assistance with any testing that is not available locally. Specimens should not be shipped to DSHS or CDC without first consulting with the local health department.

Clinicians are advised to collect specimens from patients suspected of having AFM as early as possible in the course of illness (preferably on the day of onset of limb weakness). Specimens to test are listed below in order of priority:

- CSF
- whole blood
- serum
- stool*
- nasopharyngeal aspirate, nasopharyngeal wash, or nasopharyngeal swab (with lower respiratory specimen if indicated)
- oropharyngeal swab.



Additional instructions regarding specimen collection, storage, and shipping can be found at: <http://www.cdc.gov/ncird/investigation/viral/specimen-collection.html>.

*For stool specimens, CDC recommends that healthcare providers rule out poliovirus infection in cases of acute flaccid paralysis (AFP) that are clinically compatible with polio, including those with anterior myelitis. Recommendations for polio testing can be found at: <http://www.cdc.gov/polio/us/hcp.html>. CDC can do testing for polio if the reporting facility cannot.