Maintain Awareness of Acute Flaccid Myelitis (AFM)

Summary

Acute flaccid myelitis (AFM) is an uncommon, but serious neurologic syndrome that affects mostly children and is characterized by the acute onset of limb weakness or paralysis. Since U.S. surveillance for AFM began in 2014, reported cases have peaked biennially [Figure 1: Confirmed cases of AFM reported to The Centers for Disease Control and Prevention (CDC)]. Based on previous trends, most AFM cases tend to occur between August and November. Providers should remain vigilant in monitoring for AFM this season and report suspect cases to DHEC as outlined below.

Figure 1. Confirmed cases of AFM reported to CDC (N = 633) — United States, August 1, 2014 - June 30, 2020*

Reference: [https://www.cdc.gov/mmwr/volumes/69/wr/mm6931e3.htm?s_cid=mm6931e3_w](https://www.cdc.gov/mmwr/volumes/69/wr/mm6931e3.htm?s_cid=mm6931e3_w)

* As of July 24, 2020
Background

The term acute flaccid myelitis (AFM) was created in the fall of 2014 to describe patients with sudden onset of acute flaccid limb weakness without a known cause and with lesions in gray matter of the spinal cord. There can also be some white matter involvement. Most cases are in children. Viral causes include:

- Non-polio enteroviruses (EV-D68, EV-A71)
- Flaviviruses (West Nile virus, Japanese encephalitis virus)
- Herpesviruses
- Adenoviruses

Clinical presentation is similar to poliomyelitis, but poliovirus has not been detected in any specimens from patients with AFM.

AFM Clinical Presentation

Most patients have preceding febrile illness 1–2 weeks before onset of acute flaccid limb weakness.

- Frequently respiratory or GI illness with symptoms of fever, rhinorrhea, cough, vomiting or diarrhea are reported.
- Progression of weakness is rapid, within hours to a few days.
- Weakness is in one or more limbs and is more proximal than distal.
- Loss of muscle tone and reflexes in the affected limb(s).
- Cranial nerve abnormalities may be present:
  - Facial or eyelid droop
  - Difficulty swallowing or speaking
  - Hoarse or weak cry

Some patients may complain about stiff neck, headache, or pain in the affected limb(s). Uncommonly, people may also have numbness or tingling.

Case Reporting and Specimen Collection

Report suspect cases of AFM to DHEC as soon as possible after patient identification to initiate the AFM case classification process (see reporting contact information in the last section).

DHEC will work with clinicians to complete the CDC patient summary form (available at: https://www.cdc.gov/acute-flaccid-myelitis/hcp/data-collection.html). Neurology consult notes and MRI reports and images for the brain and spine will also need to be sent to DHEC to assist with AFM case classification, and clinicians should be prepared to provide this information upon request from DHEC. Case classification will be assigned based on a review by national AFM experts and reported back to DHEC. DHEC, in turn, will relay the patient’s case classification back to the patient’s clinician.

Clinicians should also collect specimens from patients under investigation for AFM. After reporting a suspect case of AFM, DHEC will coordinate with clinicians to send patient specimens to the DHEC Public Health Laboratory (PHL). PHL will assist in sending these specimens to CDC for testing. Specimens should be collected as early as possible in the course of the illness, preferably on the day of onset of limb weakness. Early specimen collection has the best chance to reveal a cause of AFM. At this time, the following specimen types are requested from suspect AFM cases:

- Cerebrospinal fluid (CSF)
- Serum
- Stool
• NP swab

Please note that CDC’s testing protocols include several assays that are not performed under the Clinical Laboratory Improvement Amendments (CLIA) nor intended for clinical diagnosis. Therefore, CDC will be unable to provide patient-specific results for certain tests performed. For more information about specimen collection and CDC testing, please visit: https://www.cdc.gov/acute-flaccid-myelitis/hcp/specimen-collection.html

For confirmed and probable cases of AFM, DHEC will coordinate with CDC to conduct long-term follow-up of these patients. This follow-up will occur at 2 months (60 days), 6, and 12 months after the patient’s onset of limb weakness. At the time of the 2 month follow-up, DHEC will need to collect complete medical records to send to CDC. This information includes:

• Admission and discharge notes
• Any additional neurology and infectious disease consult notes from the acute hospitalization
• Any other MRI reports and images done during the acute hospitalization
• Complete vaccination history
• Laboratory test results.

Resources for Additional Information

• CDC. AFM Cases and Outbreaks. (July 31, 2020) https://www.cdc.gov/acute-flaccid-myelitis/cases-in-us.html

DHEC contact information for reportable diseases and reporting requirements

Reporting of Acute Flaccid Myelitis is consistent with South Carolina Law requiring the reporting of diseases and conditions that might pose a substantial risk of human morbidity or mortality to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2020 List of Reportable Conditions available at: https://www.scdhec.gov/sites/default/files/Library/CR-009025.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).
### Regional Public Health Offices – 2020

Mail or call reports to the Epidemiology Office in each Public Health Region

#### MAIL TO:

<table>
<thead>
<tr>
<th>Region</th>
<th>Address</th>
<th>Fax</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Lowcountry</td>
<td>4050 Bridge View Drive, Suite 600</td>
<td>(843) 953-0051</td>
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<tr>
<td></td>
<td>N. Charleston, SC 29405</td>
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<tr>
<td>Midlands</td>
<td>2000 Hampton Street</td>
<td>(803) 576-2993</td>
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<td></td>
<td>Columbia, SC 29204</td>
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<tr>
<td>Pee Dee</td>
<td>1931 Industrial Park Road</td>
<td>(843) 915-6502</td>
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<td>Conway, SC 29526</td>
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<tr>
<td>Upstate</td>
<td>200 University Ridge</td>
<td>(843) 915-6506</td>
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<td>Greenville, SC 29602</td>
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#### CALL TO:

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<tr>
<th>Region</th>
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<tbody>
<tr>
<td>Lowcountry</td>
<td>Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg</td>
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<tr>
<td></td>
<td>Office: (843) 441-1091 Night/Weekends: (843) 441-1091</td>
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<tr>
<td>Midlands</td>
<td>Aiken, Barnwell, Chester, Edgefield, Fairfield, Kershaw, Lancaster, Lexington, Newberry, Richland, Saluda, York</td>
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<tr>
<td></td>
<td>Office: (888) 801-1046 Night/Weekends: (888) 801-1046</td>
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<td>Pee Dee</td>
<td>Clarendon, Chesterfield, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg</td>
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<tr>
<td></td>
<td>Office: (843) 915-8886 Night/Weekends: (843) 915-8845</td>
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<tr>
<td>Upstate</td>
<td>Abbeville, Anderson, Cherokee, Greeneville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union</td>
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<tr>
<td></td>
<td>Office: (864) 372-3133 Night/Weekends: (864) 423-6648</td>
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For information on reportable conditions, see [https://www.scdhec.gov/ReportableConditions](https://www.scdhec.gov/ReportableConditions)

### Categories of Health Alert messages:

- **Health Alert**: Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory**: Provides important information for a specific incident or situation; may not require immediate action.
- **Health Update**: Provides updated information regarding an incident or situation; unlikely to require immediate action.
- **Info Service**: Provides general information that is not necessarily considered to be of an emergent nature.