PENNSYLVANIA DEPARTMENT OF HEALTH
2020 – PAHAN – 523 – 08-26-ADV
Seasonal Increase in Acute Flaccid Myelitis (AFM) Cases

DATE:	8/26/2020
TO:	Health Alert Network
FROM:	Rachel Levine, MD, Secretary of Health
SUBJECT:	**Seasonal Increase in Acute Flaccid Myelitis (AFM) Cases**
DISTRIBUTION:	Statewide
LOCATION:	n/a
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

This transmission is a "Health Advisory": provides important information for a specific incident or situation; may require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, DENTAL, PEDIATRIC, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL**; EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE; **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE **LOCAL HEALTH JURISDICTIONS**: PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

- The Pennsylvania Department of Health (DOH) is alerting health care providers of a confirmed case of Acute Flaccid Myelitis (AFM) in Montgomery County and to an anticipated seasonal increase in AFM cases.
- Health care providers should maintain a high index of suspicion in child patients with an onset of illness of acute flaccid weakness of one or more limbs.
- **Report all suspected AFM cases to the health department via PA-NEDSS or by calling DOH (877-PA-HEALTH) or the local health department.**
- Confirmatory laboratory/imaging evidence: MRI showing spinal cord lesion with predominant gray matter involvement and spanning one or more vertebral segment (excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities).
- CDC will make the final determination on AFM classifications.

Background

AFM is characterized by rapid onset of flaccid weakness in one or more limbs and distinct abnormalities of the spinal cord gray matter on magnetic resonance imaging (MRI). AFM is a subtype of acute flaccid paralysis (AFP), defined as acute onset of flaccid weakness absent features suggesting an upper motor neuron disorder. Most patients had onset of AFM between August and October, with increases in AFM cases **every other year starting in 2014**. Nationwide outbreaks have occurred on a biennial (i.e., every other year) basis since 2014.

Coxsackievirus A16, EV-A71, and EV-D68 was detected in the spinal fluid of four of 596 confirmed cases of AFM since 2014. For all other patients, no pathogen was detected in their cerebrospinal fluid. Since we don't know the cause of most of these AFM cases or what triggers this condition, there is no specific action to take to prevent AFM. However, most children had a respiratory illness or fever consistent with a viral infection before they developed AFM. Nationally, AFM patients had a median age of 5.2 years. Clinicians are encouraged to maintain vigilance for cases of AFM among children and to **report cases of AFM to the DOH or your local health department**. Reporting of cases will help monitor the incidence of AFM and better understand factors possibly associated with this illness. In 2018, Pennsylvania had a record-setting year for AFM with 11 cases (6-year average = 4.5 cases per year).

RECOMMENDATIONS

In response to an anticipated seasonal increase in the number of reports of suspect AFM, DOH recommends the following:

- CASE REPORTING: Clinicians should report suspected cases of AFM to DOH through the PA-NEDSS online application at https://www.nedss.state.pa.us.

    - Reports of suspected cases of AFM will be submitted to CDC for determination of case status (i.e., confirmed, probable, suspect). The AFM Patient Summary Form should be completed by the clinician who provided care to the patient during the neurologic illness and submitted to DOH (ATTN: Wayne Fleming – AFM coordinator, FAX: 717-772-6975. A blank form is available at https://www.cdc.gov/acute-flaccid-myelitis/downloads/patient-summary-form.docx.)

    - CDC requests that state health departments send the Patient Summary Form, along with the MRI report and images, to the CDC for case classification and to help monitor these cases at the national level.

    - DOH will work with clinicians to coordinate the submission of specimens and copies of spinal cord and brain MRI reports to the CDC.

- LABORATORY TESTING: Clinicians should collect specimens from patients under investigation (PUIs) for AFM as early as possible in the course of illness, **preferably on the day of onset of limb weakness**. Early specimen collection has the best chance to yield a cause of AFM.

    - The following specimens should be collected: **CSF; whole blood; serum; stool; upper respiratory tract specimens, preferably nasopharyngeal or nasal mid-turbinate plus oropharyngeal swabs** (https://www.cdc.gov/acute-flaccid-myelitis/hcp/specimen-collection.html#specimens-to-collect).

        - Please note: Collection of stool is required for AFM surveillance. Two samples collected at least 24 hours apart, both collected as early in

illness as possible and ideally within 14 days of illness onset to rule out poliovirus infection.

- CONFIRMATORY EVIDENCE: a **magnetic resonance image (MRI)** showing spinal cord lesion with predominant gray matter involvement and spanning one or more vertebral segments.

    - If suspect cases are determined by the CDC to meet the AFM case definition, DOH will work with clinicians to facilitate submission of remaining samples of these specimens to the CDC for additional testing. Additional instructions regarding specimen collection and shipping can be found at: https://www.cdc.gov/acute-flaccid-myelitis/hcp/specimen-collection.html

    - DOH will conduct 60-day, 6-month and 12-months follow-up of confirmed and probable AFM cases. CDC's AFM surveillance team will communicate final case classifications back to DOH for dissemination to clinicians, patients, and families.

2020 CSTE Standardized Case Definition for AFM

Clinical Criteria

An illness with onset of acute flaccid* weakness of one or more limbs

Laboratory Criteria

Confirmatory laboratory/imaging evidence:

- MRI showing spinal cord lesion with predominant gray matter involvement † and spanning one or more vertebral segments
- 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
- Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities

Case Classification

Confirmed

- Clinically compatible case with confirmatory laboratory/imaging evidence, **AND**
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition

Probable

- Clinically compatible case with presumptive laboratory/imaging evidence, **AND**
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition

Suspect

- Clinically compatible case, **AND**
- Available information is insufficient to classify case as probable or confirmed

Comments

To provide consistency in case classification, review of case information and assignment of final case classification for all suspected AFM cases will be done by experts in national AFM surveillance. This is similar to the review required for final classification of paralytic polio cases.

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

†Terms in the spinal cord MRI report such as “affecting 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.

References & Resources

CSTE. National Surveillance for Paralytic Poliomyelitis and Nonparalytic Poliovirus Infection (09-ID-53). https://cdn.ymaws.com/www.cste.org/resource/resmgr/PS/09-ID-53.pdf

Acute Flaccid Myelitis Home Page
https://www.cdc.gov/acute-flaccid-myelitis/what-cdc-is-learning.html

Acute Flaccid Myelitis Specimen Collection Information
https://www.cdc.gov/acute-flaccid-myelitis/hcp/specimen-collection.html

Acute Flaccid Myelitis Job Aid
https://www.cdc.gov/acute-flaccid-myelitis/downloads/job-aid-for-clinicians-508.pdf

Acute Flaccid Myelitis Patient Summary Form
https://www.cdc.gov/acute-flaccid-myelitis/downloads/patient-summary-form.docx

Acute Flaccid Myelitis Patient Summary Form Instructions
https://www.cdc.gov/acute-flaccid-myelitis/downloads/patient-summary-form-instructions.pdf

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.

This information is current as of August 26, 2020 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.