HEALTH ADVISORY

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Summary and Action Items

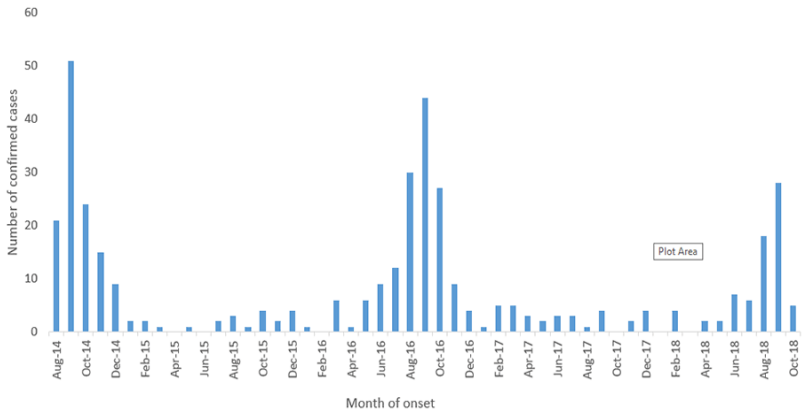
1. To update clinicians on current AFM case counts nation and statewide.
2. To provide information and resources regarding identification and management of acute flaccid myelitis (AFM) cases (suspect and confirmed).
3. To remind providers and local health departments to remain vigilant in identifying cases.

Background

Acute flaccid myelitis (AFM) is an illness characterized by acute onset of flaccid limb weakness and magnetic resonance imaging (MRI) showing lesions in the gray matter of the spinal cord. AFM is a rare but serious condition. The CDC currently estimates that less than one in a million will get AFM. AFM is not a new condition, but the increase since 2014 appears to be.

From August 2014 through October 26, 2018, CDC has received information on a total of 396 confirmed cases of AFM across the US; most of the cases have occurred in children. Surveillance has shown that AFM cases generally peak in the months of September and October, and a biennial pattern has been observed, as seen in the figure.

Number of confirmed U.S. AFM cases reported to CDC by month of onset, August 2014 - October 2018^*†



2018 Update:

For the 2018 season, as of October 26, 2018, the CDC has received a total of 191 reports of Patients Under Investigation (PUI). Of these, the CDC has confirmed 72 cases of AFM from 24 states. Similar to prior years, the vast majority of cases have occurred in children.

As of October 30, IDPH is reporting 14 PUIs; CDC confirmation is pending for all 14. Statewide updates can be found at: http://dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/afm

The CDC has provided the following information about what is known concerning the increase in AFM at this time:

- Most patients are children.
- The patients' symptoms have been most similar to complications of infection with certain viruses, including poliovirus, non-polio enteroviruses, adenoviruses, and West Nile virus. All of the AFM cases have tested negative for poliovirus.
- CDC has tested many different specimens from AFM patients for a wide range of pathogens (germs) that can cause AFM. To date, no pathogen (germ) has been consistently detected in the

patients' spinal fluid; a pathogen detected in the spinal fluid would be good evidence to indicate the cause of AFM since this condition affects the spinal cord.
- The increase in AFM cases in 2014 coincided with a national outbreak of severe respiratory illness among people caused by enterovirus D68 (EV-D68). Among the people confirmed with AFM, CDC did not consistently detect EV-D68 in every patient.

Symptoms

Symptoms of AFM include:
- sudden onset of arm or leg weakness and loss of muscle tone and reflexes,
- facial droop/weakness,
- difficulty moving the eyes,
- drooping eyelids, or
- difficulty swallowing or slurred speech.

Numbness or tingling is rare in people with AFM, although some people have pain in their arms or legs. Some people with AFM may be unable to pass urine. The most severe symptom of AFM is respiratory failure that can happen when the muscles involved with breathing become weak. This can require urgent ventilator support. In very rare cases, it is possible that the process in the body that triggers AFM may also trigger other serious neurologic complications that could lead to death.

Diagnosis and Reporting

For Clinicians

Clinicians suspecting AFM in patients meeting the probable or confirmed case definition (irrespective of laboratory testing results) should report these cases to their local health department, or to the IDPH Communicable Disease Control Section at 217-782-2016.
- Clinicians should consult with their clinical laboratory and local health department regarding laboratory testing of CSF, blood, serum, respiratory, and stool specimens for enteroviruses, West Nile virus, and other known infectious etiologies. (For further information, please see 'Specimen Collection and Testing' below.)
- The CDC AFM Patient Summary Form should be completed for cases classified as confirmed or probable and submitted to their local health department via secure fax.
- Clinicians or infection control practitioners should have access to enter reportable diseases into the Illinois National Electronic Disease Surveillance System (I-NEDSS). Those without access can report case information by fax or phone to their LHD and visit idphnet.illinois.gov to sign up for I-NEDSS.

For Local Health Departments

Local health departments should enter AFM cases into I-NEDSS as an 'Acute Flaccid Myelitis' case if the clinician has not done so.

Laboratory Testing

Specimen Collection and Testing

Clinicians should collect specimens from patients suspected of having AFM as early as possible in the course of illness, preferably at the onset of limb weakness. Early specimen collection has the best chance to yield a diagnosis of AFM. Please refer to CDC's **specimen collection procedures** for the most up-to-date instructions on collection, storage, and shipping. Specimens should include:

- Cerebrospinal fluid (CSF);
- Blood (serum and whole blood);
- A nasopharyngeal aspirate, nasopharyngeal wash, or nasopharyngeal swab with lower respiratory specimen(s) if indicated, and an oropharyngeal swab; and
- Stool.

Specimens should be stored properly until CDC authorization to test has been given to the provider or laboratory. Once specimens have been authorized for testing, the LHD or IDPH will provide an "authorization number." Specimens submitted for testing must be labeled with the authorization number. All available clinical specimens must be shipped in insulated containers to one of the IDPH laboratories using cold packs. Specimens will then be forwarded to CDC for testing**. Specimens sent to CDC are for investigational purposes. Pathogen-specific testing should continue at hospital or state public health laboratories as is clinically warranted.**

The following three forms ***must*** be completed and included with all specimen submissions:

- IDPH Laboratory Test Requisition Form
- CDC 50.34 DASH Form: (Please contact the IDPH laboratory if assistance is needed with this form.)
- CDC AFM Patient Summary Form (located at the bottom of this link)

CDC will review the completed AFM patient summary form and available medical records or images to determine if case definition has been met. **Please note: case review and classification by CDC may take several weeks; therefore, clinical decisions should not be delayed or determined by the CDC case determination or test results.**

Resources

AFM Investigation Information	CDC Specimen Collection Procedures
Information for Clinicians	FAQ's for Healthcare Providers
AFM Case Definition	Job Aid for Clinicians
Patient Summary Form	Instructions for Completing the Patient Summary Form

Contact

IDPH CD Section 217-782-2016

Target Audience

Local Health Departments, Hospital Emergency Departments and Emergency Physicians, Infection Control Professionals, Infectious Disease Physicians, Pediatricians, and Family Practice Physicians.

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