Increase in Reports of Acute Flaccid Myelitis Cases Nationally – 2018

Key Points and Recommendations:

1. The Centers for Disease Control and Prevention (CDC) has received an increased number of acute flaccid myelitis (AFM) case reports for 2018 across the United States.
2. Since 2014, New Hampshire has identified four confirmed and one probable case of AFM in New Hampshire residents. There is currently one suspect case of AFM under investigation in NH for 2018.
3. Clinicians should remain vigilant for cases of AFM, and suspected cases of AFM should be promptly reported to NH DPHS at 603-271-4496 (after hours 603-271-5300).
4. Patients suspected of having AFM should have specimens collected for testing as soon as possible according to CDC guidance (see laboratory recommendations below).
5. To learn more about AFM, please attend the upcoming CDC Clinician Outreach and Communication Activity (COCA) webinar on Tuesday November 13th at 2:00pm: https://emergency.cdc.gov/coca/calls/2018/callinfo_111318.asp

Situation:

There has been an increase in reported acute flaccid myelitis (AFM) cases nationally since August 2018. From January 1 through October 26, 2018, the Centers for Disease Control and Prevention (CDC) received 191 reports of patients under investigation for AFM. This includes 72 confirmed cases from 24 different states. Increases in AFM were first reported back in 2014 which coincided with a national outbreak of enterovirus D68 infection (EV-D68) which caused severe respiratory infections. Despite the temporal relationship, EV-D68 has not been confirmed as a cause for a majority of AFM cases. Since the initial increase in cases seen in 2014, there have been national increases every couple of years, including in 2016 and 2018, typically beginning around August (see graph below from CDC website). Most affected individuals have been children, although not all.

(Graph from CDC Website: https://www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html)
The seasonality and timing of AFM cases is suspicious for an infectious or viral cause; however, investigation by the CDC since 2014 has not identified a common infectious etiology for the increase in AFM cases. A number of different viral infections are known to potentially cause AFM or a similar neurologic illness, including poliovirus, non-polio enteroviruses, West Nile Virus and other arboviruses, and adenoviruses. All individuals with AFM have tested negative for poliovirus.

In New Hampshire, we have identified five AFM cases since 2014, including four confirmed and one probable AFM case. There have been no confirmed cases in NH for 2018, although one suspect case is currently under investigation. AFM was made a reportable condition in New Hampshire in October 2016.

Clinicians are encouraged to maintain vigilance for AFM among all age groups and to report patients with acute onset of flaccid limb weakness to the New Hampshire Department of Health and Human Services, Division of Public Health Services (DPHS). Reporting of cases will help states and CDC monitor the occurrence of AFM and better understand factors associated with this illness.

**Clinical Presentation:**
AFM is a rare but serious neurological condition that affects the central nervous system, specifically the gray matter of the spinal cord, and causes a sudden onset of limb weakness and loss of muscle tone and reflexes. Affected individuals may also have facial droop or weakness, difficulty with eye movements, ptosis, dysphagia, or dysarthria. A magnetic resonance image (MRI) typically shows a spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments. Patients presenting with symptoms consistent with AFM should have a neurological evaluation performed, including neurology consult and MRI.

There is no specific treatment recommended, and long-term outcomes are still being studied. Recovery, however, has been variable and neurologic function and strength can be slow to recover.

AFM is not a contagious condition; however, risk factors for developing AFM are not known.

**Case Reporting:**
Clinicians should send the following information about all patients that meet the clinical criterion for AFM (acute onset of flaccid limb weakness) to NH DPHS:
- Admission and discharge notes
- Neurology and infectious disease consult notes
- Magnetic resonance imaging (MRI) reports AND images
- Complete vaccination history, and
- Laboratory test results.

Information should be sent regardless of specific laboratory or MRI results.
Laboratory Testing:
Clinicians should collect specimens from patients under investigation for AFM as early as possible in the course of illness, preferably on the day of onset of limb weakness and coordinate with NH DPHS to submit specimens to CDC for testing. Specimens to collect include:

- CSF;
- Serum; and
- A nasopharyngeal (NP) or oropharyngeal (OP) swab; and
- Stool
  - Please note: Collection of stool is required for AFM surveillance. Two stool specimens should be collected at least 24 hours apart early during the course of illness to rule out poliovirus infection.
- Pathogen-specific testing for diagnostic purposes should continue at hospital or state public health laboratories.
- AFM testing at CDC includes:
  - Routine enterovirus/rhinovirus (EV/RV) testing and typing of CSF, respiratory, and stool specimens and poliovirus testing of stool specimens to rule out the presence of poliovirus. Results will be provided to the submitter once testing is completed.
  - Additional testing of CSF and serum to look for etiology/mechanism for AFM. Patient-level results for the additional testing will not be provided since the testing protocols are not performed under the Clinical Laboratory Improvement Amendments (CLIA) nor intended for clinical diagnosis.

For more information:
- For Clinicians and Health Departments: https://www.cdc.gov/acute-flaccid-myelitis/hcp/index.html
- References: https://www.cdc.gov/acute-flaccid-myelitis/references.html
For any questions regarding the contents of this message, please contact NH DHHS, DPHS, Bureau of Infectious Disease Control at 603-271-4496 (after hours 1-800-852-3345 ext.5300).

To change your contact information in the NH Health Alert Network, contact Adnela Alic at 603-271-4499 or Adnela.Alic@dhhs.nh.gov

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Originating Agency: NH Department of Health and Human Services, Division of Public Health Services

Attachments: None

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