



September 15, 2016 (2 pages – replaces version dated October 26, 2015)

To: North Carolina Health Care Providers
From: Zack Moore, MD, MPH, Acting State Epidemiologist
Scott J. Zimmerman, DrPH, MPH, HCLD (ABB), State Public Health Laboratory Director
Re: **Increase in Reports of Suspected Acute Flaccid Myelitis Cases Nationally- 2016**

This memo is intended to provide updated information regarding identification and management of suspected acute flaccid myelitis cases and to request reporting of such cases to public health.

Background

The U.S. Centers for Disease Control and Prevention (CDC) has received an increased number of reports of suspected acute flaccid myelitis (AFM) from January through July 2016 as compared to the same period in 2015. Clinicians are encouraged to maintain vigilance for cases of AFM among all age groups and to report cases of AFM to the North Carolina Division of Public Health (NC DPH). Reporting of cases will help NC DPH and CDC monitor the occurrence of AFM and better understand factors possibly associated with this illness.

From January 1, 2016 through July 31, 2016, CDC received 49 reports of suspected AFM; 27 met the case definition for confirmed AFM and 4 were classified as probable. During the same period in 2015, CDC received 8 reports of suspected AFM, of which 5 were classified as confirmed. Among the 27 confirmed cases reported in 2016, median age was 5 years (range, 5 months – 18 years). Dates of onset for confirmed cases ranged from January 19 through July 23, 2016; 74% (20/27) had onset of limb weakness after May 1, 2016. Cerebrospinal fluid (CSF) pleocytosis was present in 85% (23/27) of confirmed AFM cases with a median cell count of 46/mm³ (range, 6-1460/mm³). To date, no single pathogen has been consistently detected in CSF, respiratory specimens, stool, or blood at either CDC or state laboratories.

Case Classification

Confirmed:

- An illness with onset of acute focal limb weakness AND
- MRI showing spinal cord lesion largely restricted to gray matter* and spanning one or more spinal segments

Probable:

- An illness with onset of acute focal limb weakness AND
- CSF showing pleocytosis (white blood cell count >5 cells/mm³)

*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 a neurologist or radiologist directly.

Case Reporting

Clinicians should report suspect cases of AFM, irrespective of laboratory results suggestive of infection with a particular pathogen, to the NC DPH Communicable Disease Branch at 919-733-3419.

- NC DPH requests that clinicians complete the patient summary form (available at <http://www.cdc.gov/acute-flaccid-myelitis/hcp/data.html>) and submit to NC DPH Communicable Disease Branch via secure fax at 919-733-0490 to the attention of “AFM surveillance”.
- Copies of spinal cord and brain MRI reports should be provided along with the patient summary form.
- Reports from suspect cases of AFM will be submitted to CDC for determination of case status- i.e., confirmed, probable, not a case.



Laboratory Testing

Clinicians should 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). The following specimens should be collected:

- CSF specimen
- Upper respiratory tract specimen (ranked by first to last preference)
 - Nasopharyngeal swab >>nasal swab>>nasal wash/aspirate>>oropharyngeal swab
- Serum samples (acute and convalescent, if possible) and whole blood
 - If any serum samples were collected after receipt of intravenous immune globulin or plasmapheresis, please note this on the patient summary form
- Two (2) stool specimens, in accordance with the recommendations for poliovirus testing in all patients with a compatible clinical picture (ranked by preference)
 - Whole stool>>rectal swab

Please note: collection of stool is required for AFM surveillance. Two (2) stool specimens should be collected at least 24 hours apart early during the course of illness to rule out poliovirus infection.

If suspect cases are determined by CDC to meet the AFM case definition, NC DPH will work with clinicians to facilitate submission of these specimens to CDC for additional testing. Specimens should be shipped in insulated containers using cold packs to the North Carolina State Laboratory of Public Health (SLPH). Note that specimens received on Fridays will not be shipped to CDC until the following Monday. The following three forms *must* be included with all submissions:

- NC SLPH Form DHHS-3431: <http://slph.ncpublichealth.com/Forms/3431-Virology-20160818.pdf> (in section 5, check “Other” and indicate “Suspect AFM”)
- CDC 50.34 DASH Form: <http://slph.ncpublichealth.com/forms.asp> (click on “specimen submittal forms”). Note that the pop-down menus may not offer exactly the testing you would like or you may be unsure about the menu choices; in either case make a choice and NC DPH will clarify with CDC what testing is being requested.
- AFM Patient Summary Form, page 1 (<http://www.cdc.gov/acute-flaccid-myelitis/hcp/data.html>)

Additional instructions regarding specimen collection and shipping can be found at: <http://www.cdc.gov/acute-flaccid-myelitis/hcp/instructions.html>.

For more information

- AFM surveillance guidance: <http://www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html>
- AFM information for clinicians and public health officials: <http://www.cdc.gov/ncird/investigation/viral/2014-15/hcp.html>
- General resources and references for AFM: <http://www.cdc.gov/acute-flaccid-myelitis/references.html>