NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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Division of Public Health

October 24, 2018 (**2 pages – *replaces version dated February 6, 2017*)**

To: North Carolina Health Care Providers
From: Zack Moore, MD, MPH, State Epidemiologist
Scott J. Zimmerman, DrPH, MPH, HCLD (ABB), State Public Health Laboratory Director
Re: **Increase in Reports of Acute Flaccid Myelitis Nationally, 2018**

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 officials.

Background
The North Carolina Division of Public Health (NC DPH) and the Centers for Disease Control and Prevention (CDC) continue to receive reports of acute flaccid myelitis (AFM) cases. So far in 2018, the CDC has confirmed 62 cases of AFM in 22 states, including North Carolina (1 case). Of these, 58 (94%) are in children.

AFM is usually characterized by sudden onset of weakness and loss of muscle tone and reflexes in the arms and/or legs. In addition to limb weakness, some patients will experience facial droop or weakness; difficulty moving the eyes; drooping eyelids; difficulty with swallowing; or slurred speech.

The specific causes of AFM are still being investigated. There are a variety of possible causes; to date, no single pathogen has been consistently detected in spinal fluid, respiratory, stool, or blood specimens at either the CDC or state laboratories. Although initial attention was focused on enterovirus D68 (EV-D68) when AFM surveillance began in 2014, the CDC has not found a clear association between EV-D68 and AFM.

Case Classification
Confirmed:
- An illness with onset of acute flaccid limb weakness AND
- Confirmatory laboratory evidence: MRI showing spinal cord lesion largely restricted to gray matter*† and spanning one or more vertebral segments

Probable:
- An illness with onset of acute flaccid limb weakness AND
- Supportive laboratory evidence: CSF showing pleocytosis (white blood cell count >5 cells/mm^3)

*Spinal cord lesions may not be present on initial MRI; a negative or normal MRI performed within the first 72 hours after onset of limb weakness does not rule out AFM.
†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.

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

- NC DPH requests that clinicians complete the patient summary form (available at http://www.cdc.gov/acute-flaccid-myelitis/hcp/data.html) and submit completed forms to NC DPH Communicable Disease Branch via secure fax at 919-733-0490 to the attention of "AFM surveillance".
- Additional information, including admission and discharge notes, MRI reports and images, and neurology consult notes should be provided along with the patient summary form.
- Reports of suspected cases of AFM will be submitted to the CDC for determination of case status- i.e., confirmed, probable, or 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 (≥1 mL, collected at the same time or within 24hr of serum)
- Nasopharyngeal (NP) or oropharyngeal (OP) swab in 1 mL viral transport medium
- Serum (≥0.4 mL, collected at the same time or within 24 hrs of CSF)
- Two (2) whole stool specimens, collected at least 24 hours apart (≥1 gram each).

All specimens listed above may be frozen at -20°C and shipped on dry ice directly to the CDC Monday through Thursday (see the following link for shipping address: https://www.cdc.gov/acute-flaccid-myelitis/hcp/instructions.html). The NC DPH Communicable Disease Branch must be notified (919-733-3419) when specimens are shipped and provided with the tracking number. Alternatively, refrigerated specimens can be sent on cold packs to the North Carolina State Laboratory of Public Health (NCSLPH) as soon possible. Once received, specimens will be frozen and shipped to the CDC.

In the event of a death, additional specimens will be requested. The NCSLPH will work directly with the Office of the Chief Medical Examiner to ensure that proper specimens are collected and forwarded to the CDC for testing.

The following two forms must be included with all submissions:

- CDC 50.34 DASH Form for AFM : http://slph.ncpublichealth.com/forms.asp . If your browser's PDF viewer does not display the CDC DASH form please follow the important instruction provided below the link.
- AFM Patient Summary Form, page 1 (http://www.cdc.gov/acute-flaccid-myelitis/hcp/data.html)

If specimens will be sent to the NCSLPH, the following form must be included as well:

- NC SLPH Form DHHS-3431: https://slph.ncpublichealth.com/Forms/3431-VirologyFinal-20170711.pdf (under "Infectious Agent(s) Suspected or Test(s) Requested", check "Other" and indicate "Suspect AFM")

For more information

- AFM surveillance guidance: http://www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html
- AFM information for clinicians and public health officials: https://www.cdc.gov/acute-flaccid-myelitis/hcp/index.html
- General resources and references for AFM: http://www.cdc.gov/acute-flaccid-myelitis/references.html