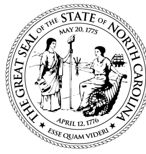

North Carolina Department of Health and Human Services
Division of Public Health

Pat McCrory
Governor

Richard O. Brajer
Secretary

Daniel Staley
Acting Division Director

October 26, 2015

To: North Carolina Health Care Providers
From: Zack Moore, MD, MPH, Medical Epidemiologist
Re: **Acute Flaccid Myelitis (*2 pages*)**

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

Summary

Following the increased number of reports of acute flaccid myelitis (AFM) among children that were received by the U.S. Centers for Disease Control and Prevention (CDC) during August–October 2014, CDC has continued to receive sporadic reports of AFM. The apparent increase in AFM cases in 2014 coincided with a national outbreak of severe respiratory illness among children caused by enterovirus-D68 (EV-D68), which resulted in an increased number of children hospitalized. However, despite this close association in timing between the EV-D68 outbreak and the increase in AFM cases, an etiology for the 2014 AFM cases was not determined. As of July 2015, CDC had verified reports of 120 children in 34 states, including 2 children in North Carolina, who developed acute flaccid myelitis that met CDC's outbreak case definition.

The North Carolina Division of Public Health (NC DPH) is re-emphasizing the importance of continued vigilance in identifying cases of AFM among all age groups, irrespective of enterovirus status. Reporting of these cases will help public health officials monitor for increases in this illness and better understand potential causes, risk factors, and preventive measures or therapies.

Case Definition

The case definition for AFM has been expanded to include all ages and to provide a more complete picture of the full spectrum of illness. As of August 1, 2015, cases of AFM are defined by the following criteria:

Confirmed Classification:

- 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 Classification:

- An illness with onset of acute focal limb weakness AND
- CSF showing pleocytosis (white blood cell count >5 cells/mm^3, may adjust for presence of red blood cells by subtracting 1 white blood cell for every 500 red blood cells present).

Reporting

Clinicians suspecting AFM in patients meeting the probable or confirmed case definition (irrespective of laboratory testing results) are asked to report these cases to their local health department or to the NC DPH Communicable Disease Branch at 919-733-3419. NC DPH also asks clinicians to:

- Consult with the NC DPH Communicable Disease Branch (919-733-3419) regarding laboratory testing of CSF, blood, serum, respiratory, and stool specimens for enteroviruses, West Nile virus, and other known infectious etiologies, and
- Complete the CDC AFM Patient Summary Form (available at: http://www.cdc.gov/ncird/investigation/viral/2014-15/hcp.html) for cases classified as confirmed or probable and submit to NC DPH Communicable Disease Branch via secure fax at 919-733-0490 to the attention of AFM Surveillance.

Specimen Collection and 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. Early specimen collection has the best chance to yield a diagnosis of AFM. Specimens should include:

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

Available clinical specimens should be shipped in insulated containers using cold packs to the North Carolina State Laboratory of Public Health. Specimens will be forwarded to CDC for testing. Note that specimens received on Friday 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.asp (in section four, check “Other” and indicate “Suspect AFM”)
- CDC 50.34 DASH Form: http://slph.ncpublichealth.com/forms.asp (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)
- CDC AFM Patient Summary Form, page 1

Additional instructions regarding specimen collection can be found at CDC’s AFM Specimen Collection page (http://www.cdc.gov/ncird/investigation/viral/specimen-collection.html).

Clinical Management and Follow-up of Patients
Information to help clinicians manage care of persons with AFM that meet CDC’s case definition can be found at http://www.cdc.gov/ncird/investigation/viral/2014-15/hcp.html.

Additional Information
Additional information about acute flaccid myelitis is available at http://www.cdc.gov/ncird/investigation/viral/2014-15/index.html. Information about EV-D68 is available at http://www.cdc.gov/non-polio-enterovirus/about/ev-d68.html or http://epi.publichealth.nc.gov/cd/diseases/enterovirus.html.

Please contact the NC DPH Communicable Disease Branch at 919-733-3419 with any questions.