



# Department of Health

**ANDREW M. CUOMO**  
Governor

**HOWARD A. ZUCKER, M.D., J.D.**  
Commissioner

**SALLY DRESLIN, M.S., R.N.**  
Executive Deputy Commissioner

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TO: Healthcare Providers, Hospitals, Clinical Laboratories and Local Health Departments (LHDs)

FROM: New York State Department of Health (NYSDOH) Division of Epidemiology

## HEALTH ADVISORY: ACUTE FLACCID MYELITIS

For healthcare facilities, please distribute to the Epidemiology/Infection Control Department, Emergency Department, Infectious Disease Department, Director of Nursing, Medical Director, Director of Pharmacy, Laboratory Service, and all patient care areas.

### SUMMARY

- Acute flaccid myelitis (AFM) is a rare but serious condition. It affects the nervous system, specifically the gray matter area of the spinal cord, and the muscles and reflexes in the body become weak.
- AFM can be difficult to diagnose because it shares many of the same symptoms as other neurologic diseases, like transverse myelitis and Guillain-Barré syndrome. Most of the cases that have been reported have been in children.
- AFM may have a variety of possible causes such as viruses, environmental toxins, and genetic disorders. Certain viruses that can cause AFM or similar neurologic conditions include poliovirus and non-polio enteroviruses, West Nile virus (WNV) and other flaviviruses (specifically Japanese encephalitis virus and Saint Louis encephalitis virus), and adenoviruses. To date, no one pathogen has been consistently detected in patients' spinal fluid.
- CDC and state health departments are still investigating potential causes of AFM. An expert panel convened by CDC has developed [Interim Considerations for Clinical Management of Patients](#) to assist providers caring for patients.
- Report suspected cases promptly to the LHD where the patient resides. Contact information is available at: [https://www.health.ny.gov/contact/contact\\_information](https://www.health.ny.gov/contact/contact_information). If you are unable to reach the LHD where the patient resides, please contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays.
  - NYSDOH will advise providers on the collection of appropriate specimens (e.g. CSF, serum, stool, and respiratory samples) for testing at the NYSDOH's Wadsworth Center.

## **BACKGROUND**

AFM is a rare but serious condition. It affects the nervous system, specifically the grey matter of the spinal cord, which causes the muscles and reflexes in the body to become weak. AFM can be difficult to diagnose because it shares many of the same symptoms as other neurologic diseases, like transverse myelitis and Guillain-Barre syndrome. From August 2014 through August 2018, a total of 362 cases of AFM have been reported in the U.S., with most cases having occurred in children.

AFM may have a variety of possible causes such as viruses, environmental toxins, and genetic disorders. Certain viruses that can cause AFM or similar neurologic conditions include poliovirus and non-polio enteroviruses, West Nile virus (WNV) and other flaviviruses (specifically Japanese encephalitis virus and Saint Louis encephalitis virus), and adenoviruses. Enteroviruses most commonly cause mild illness. They can also cause neurologic illness, such as meningitis, encephalitis, and AFM, but these are rare.

CDC and State Public Health Laboratories have tested many different specimens from AFM patients for a wide range of pathogens that can cause AFM. To date, no pathogen 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 and State Public Health Laboratories did not consistently detect EV-D68 in every patient.

The cause of most AFM cases, including those observed in 2014, remains unknown. Likewise, it is not known who is at higher risk for developing AFM, or the reasons why they may be at higher risk. Some patients diagnosed with AFM have recovered quickly, and some continue to have paralysis and require ongoing care.

## **INTERIM CONSIDERATIONS FOR CLINICAL MANAGEMENT OF PATIENTS**

Since CDC and state health departments are still investigating potential causes of AFM, neither CDC nor NYSDOH recommend any one treatment. However, in 2014, CDC received input from an expert group of neurologists, infectious disease experts, pediatricians, immunologists, and public health professionals to develop considerations for clinical management of patients with AFM, which can be found at <https://www.cdc.gov/acute-flaccid-myelitis/downloads/Interim-Considerations-AFM.pdf>. The expert group encourages healthcare providers to use these considerations for clinical management of AFM.

The considerations in the document are intended to apply to AFM and are not intended to be generalized to all forms or etiologies of childhood acute flaccid paralysis, such as Guillain-Barré syndrome, transverse myelitis, or other immune-mediated etiologies. If an alternative diagnosis for the acute paralysis is under consideration, all efforts should be made to confirm the alternative diagnosis and treat appropriately.

## **INFECTION CONTROL**

Although no specific pathogen has been definitively linked to AFM, persons suspected or confirmed to have AFM who also exhibit signs and symptoms of respiratory illness should be cared for using Standard, Contact, and Droplet Precautions until such time that infection with a transmissible respiratory

pathogen has been ruled out. Meticulous hand hygiene with an alcohol-based hand sanitizer or soap and warm water if hands are visibly soiled is also an important step to prevent disease transmission.

For more information, please see the following CDC websites:

Standard Precautions

<https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html>

Transmission-based Precautions

<https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>

Enterovirus-D68 for Health Care Professionals

<https://www.cdc.gov/non-polio-enterovirus/hcp/ev-d68-hcp.html>

## **TESTING AND REPORTING OF SUSPECTED CASES**

Providers should promptly report patients with an acute onset of flaccid limb weakness to the LHD where the patient resides. Suspected cases should be reported regardless of local laboratory testing results (e.g. if negative for enteroviruses).

Contact information is available at: [https://www.health.ny.gov/contact/contact\\_information](https://www.health.ny.gov/contact/contact_information). If you are unable to reach the LHD where the patient resides, please contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays.

NYSDOH will assist providers in collecting appropriate specimens (e.g. CSF, serum, stool, and respiratory samples) for testing, as soon as possible, to increase the possibility of finding a cause. These specimens will be tested at the Department's Wadsworth Center Laboratory for enteroviruses, West Nile virus, and other infectious etiologies known to be associated with AFM. Wadsworth will also coordinate the possible submission of these specimens to CDC for testing for both infectious and non-infectious causes. **Specimens should not be sent directly to CDC.**

## **QUESTIONS**

Questions regarding clinical or epidemiological information should be directed to your LHD or the NYSDOH Bureau of Communicable Disease Control at (518) 473-4439 and [bcdc@health.ny.gov](mailto:bcdc@health.ny.gov). Questions about infection control in healthcare facilities should be directed to the NYSDOH Bureau of Healthcare Associated Infections at (518) 474-1142 and [icp@health.ny.gov](mailto:icp@health.ny.gov).