

Acute Flaccid Myelitis (AFM)/Acute Flaccid Paralysis (AFP)

October 26, 2018

CONTEXT:

Increased numbers of cases of Acute Flaccid Myelitis (AFM) primarily affecting children have been reported in 22 US States recently. The US CDC is working with state health departments to gather additional information and to determine potential causes, but to date, no one pathogen has been detected consistently in specimens. In Canada, there have been anecdotal reports of an increase in cases of AFM. However, at present, a confirmed increase in cases has not been reported. As of October 25, 2018 there have been 18 confirmed cases of AFP in Canada, within the expected range for the year.

AFM, a type of Acute Flaccid Paralysis (AFP), is a rare and serious condition that affects the nervous system, causing sudden onset of muscle weakness and abnormal reflexes, particularly in the arms and legs. The weakness is a result of inflammation of the spinal cord. AFM can be caused by auto-immune diseases, exposure to environmental toxins or a number of different viruses. In some cases the cause is unknown. Additional information on AFM can be found in the references below.

CLINICAL CASE DEFINITION for AFP:

Acute onset of focal weakness or paralysis characterized as flaccid (reduced tone) without other obvious causes (e.g., trauma) in children less than 15 years old, including Guillain Barré Syndrome (GBS). Transient weakness (e.g., postictal weakness) should not be reported.

ACTIONS:

- 1) AFP is notifiable in Alberta. Contact the Zone Medical Officer of Health (MOH) on call at 403-388-6111 to report all cases that meet the clinical case definition above within 48 hours.
- 2) AFP is also under active surveillance by the Canadian Paediatric Surveillance Program (CPSP). The physician caring for the case should complete the CPSP Acute Flaccid Paralysis Reporting Form available at: <http://www.cpsp.cps.ca/uploads/studies/acute-flaccid-paralysis-questionnaire.pdf>

LABORATORY TESTS:

To facilitate the detection of non-polio enteroviruses with respiratory tropism (EV-D68 and other new but rare emerging species C enteroviruses (C015)), physicians are encouraged to **collect both a respiratory and a stool specimen**. Many enteroviruses associated with central nervous system diseases will be detected in CSF; however, to date EV-D68 has only been detectable in respiratory specimens. Many enteroviruses including EV 71 can also frequently be detected in stool samples.

For suspected cases of poliomyelitis or AFP, please contact the Zone Medical Officer of Health (MOH) prior to specimen collection, for direction on specimen collection and coordination of testing.

- 1) When filling out requisitions for testing, indicate that AFP and/or AFM are suspected or confirmed within the patient history details to avoid delays in testing.
- 2) The following are considerations to determine the causative agent and to rule out or confirm polio:
 - Stool samples – collect one stool sample within two weeks (or up to six weeks) after onset of paralysis, for:
 - viral studies (enterovirus must be specified on the requisition as it is not included in the routine gastroenteritis panel), and
 - *Campylobacter*, if GBS is suspected
 - NP swab and CSF may be collected to assist with the investigation.
 - If an NP swab is collected, the full respiratory virus panel must be requested on the requisition.

ADDITIONAL REFERENCES:

- Alberta Health, Public Health Notifiable Disease Management Guideline – *Acute Flaccid Paralysis*, August 2011 available at: <https://open.alberta.ca/publications/acute-flaccid-paralysis-afp>
- Public Health Agency of Canada: Information for Canadians regarding reports of acute flaccid myelitis (AFM) accessed October 24, 2018 at: <https://www.canada.ca/en/public-health/services/diseases/acute-flaccid-myelitis.html>
- US Centers for Disease Control and Prevention: About Acute Flaccid Myelitis accessed October 24, 2018 at: <https://www.cdc.gov/acute-flaccid-myelitis/about-afm.html>.

This update is posted on the AHS-MOH webpage www.albertahealthservices.ca/medstaff/Page7082.aspx