

**Date:** November 4, 2019  
**To:** Neurologists, Critical Care Physicians, Infectious Diseases Physicians, Medical Officers of Health, Emergency Departments and Laboratory Managers  
**From:** Alberta Precision Laboratories (APL) – ProvLab and  
Alberta Precision Laboratories (APL)  
**Re:** Update on Enterovirus D68

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#### Key Messages:

- Enterovirus D68 (EV-D68) has been detected circulating in Alberta during the summer and fall of 2019.
- Infection with EV-D68 and other enterovirus types should be considered in cases of severe acute respiratory illness (SRI) and acute flaccid paralysis/acute flaccid myelitis (AFP/AFM).
- The sample of choice to detect EV-D68 is an upper respiratory tract sample (e.g., nasopharyngeal [NP] swab or aspirate) but other samples should be submitted as well for detection of all enterovirus types in the setting of AFP/AFM (including cerebrospinal fluid [CSF], blood, and stool).
- The ProvLab respiratory virus panel detects but does not discriminate between different types of enteroviruses and rhinoviruses. Contact the ProvLab Virologist-On-Call (VOC) for enterovirus-specific detection and typing.

#### Background:

- EV-D68 predominantly causes respiratory infections and can be asymptomatic. Illness ranges from mild to severe respiratory disease and is sometimes implicated in asthma exacerbations. In 2014 and 2016, EV-D68 levels surged throughout Canada and other countries and was associated with cases of SRI and AFP/AFM. In 2019, EV-D68 has again been detected in some cases of respiratory illness and AFP/AFM. Cases of SRI and AFP/AFM should be reported to the Medical Officer of Health (MOH).

#### Laboratory Testing:

- **SRI cases:** always consider other causes of SRI and continue to sample and test for other pathogens and etiologies. Contact your local MOH if travel history or animal exposure suggests pathogens such as MERS-CoV or avian influenza. An NP swab or aspirate is appropriate for the detection of enteroviruses, including EV-D68. If enterovirus/rhinovirus is positive on the respiratory virus panel for SRI cases, contact the local ProvLab VOC for enterovirus-specific detection and typing.
- **AFP/AFM cases:** always consider other causes of AFP/AFM and similar neurologic entities and continue to sample and test for other pathogens and etiologies. NP swabs are the preferred samples to detect EV-D68 while CSF is rarely positive; however, investigation should include CSF for the routine viral panel as well as a stool and blood sample for the detection of all enterovirus types. The local ProvLab VOC and MOH should be contacted prior to specimen collection to aid in the coordination of testing.

**Inquiries and feedback may be directed to:**

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**This bulletin has been reviewed and approved by:**

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