**Increasing Enterovirus D68 Activity in BC**

This message sent to: BC MHOs, Medical Microbiologists, Epidemiologists, Infection Control Practitioners, Infectious Disease Specialists, ER Docs, PHNLs, Provincial CD Nurses, BCCDC and others

Surveillance screening of respiratory samples at the BCCDC Public Health Laboratory shows that the number of positive tests for enterovirus (EV) and rhinovirus (RV) has been increasing since mid-September this year. EV activity is known to typically increase each year during the late summer to early fall. Of note, however, is that among a subset of these EV/RV positive specimens that have been molecularly characterized for serotype, a substantial proportion have been positive for enterovirus D68 (EV-D68) this season.

EV-D68 is an enterovirus serotype. EV-D68 typically causes mild respiratory illness, but has been associated with severe respiratory infections in the past as well as acute flaccid myelitis (AFM), a rare but serious neurologic complication causing limb weakness primarily among children.

EV-D68 is associated with biennial peaks. In 2014, EV-D68 was associated with a large outbreak of severe respiratory illness in the USA and Canada, with subsequent peaks observed in the fall of 2016 and 2018. Some EV-D68 activity was seen in 2020 but it was limited, and is presumed to have been much lower because of COVID-19 public health measures that were in place.

Further characterization of EV/RV positive specimens to assess for EV-D68 is typically undertaken only upon clinician request. However, in years where increased EV-D68 activity is observed, targeted surveillance for EV-D68 is performed to inform risk assessments. Under this enhanced surveillance screening, laboratories across the province are requested to forward EV/RV positive specimens to the BCCDC Public Health Laboratory to assess for EV-D68. Based upon this surveillance, a higher proportion of EV/RV positive specimens have been characterized as EV-D68 so far this season compared to previous years.

In light of the higher EV-D68 positivity being observed in BC, clinicians are recommended to:

- Consider EV-D68 as part of the differential diagnosis in children presenting with acute, severe respiratory illness (with or without fever) by testing for a range of viral pathogens including EV/RV
- Consider AFM in patients with acute flaccid limb weakness, especially occurring after respiratory illness or fever, particularly between the late summer to early fall (August to November 2022) months. If a respiratory sample is being submitted, request EV-D68 typing so that the result is reported to the ordering clinician.

For persons 18 years and under from August to December, routine EV-D68 characterization is currently being performed for surveillance purposes when EV/RV is detected on a respiratory panel. **Note that this surveillance typing result is not routinely reported out to clinicians, so ordering clinicians should continue to request EV-D68 typing if there is a clinical suspicion.** Instructions on requesting testing for clinical purposes using a respiratory panel able to detect multiple respiratory viruses can be found within the eLab Handbook (Search for 'enterovirus').
For more information on EV-D68, please see: Enterovirus-D68 on the BCCDC website.