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## Confirmed Vaccine-derived Poliovirus-type 2 Case in the United States

**Attention:** Physicians, Emergency Departments, Infection Control Practitioners, Walk-In Clinics/Urgent Care Clinics, Nurse Practitioners, Neighbouring Health Units, Ontario Health Central, Designated Officers, Midwives, Community Health Centres, Family Health Teams, Pharmacies, Occupational Health Professionals, Central LHIN, NSM LHIN, Beausoleil First Nation, Moose Deer Point First Nation, Rama First Nation, Wahta First Nation, EMS

**Date:** August 22, 2022

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There has been a confirmed vaccine-derived poliovirus-type 2 (VDPV2) case [reported on July 21, 2022](#) in the United States.

As a result, the Simcoe Muskoka District Health Unit (SMDHU) is reminding health care providers to be alert for all cases of poliovirus and acute flaccid paralysis (AFP). Heightened suspicion is particularly important if one or more of the following apply to the patient:

- Is unvaccinated or under-vaccinated against poliovirus
- Has recent travel in Rockland County, New York (or surrounding areas)
- Has recent travel in [countries with ongoing polio transmission](#)
- Was exposed to a person who travelled/resided in any of these areas

### Relevance to Canada:

Canada has maintained polio-free status since 1994. Between 2004 and 2012 in Canada, four cases of Sabin-like poliovirus were detected in infants who had travelled to and were vaccinated in countries using oral polio vaccine (OPV). In Canada, poliomyelitis vaccine coverage is high (91.9% among two-year-olds in 2019), and, according to the World Health Organization, meets the threshold for herd immunity (80%). It is unlikely for VDPV2 to become widespread in Canada due to good sanitation and high polio vaccination rates. However, there is a risk of an importation event in Canada because of cross-border travel.

**Note:** The objective of AFP surveillance is to rule out or detect polio and is required for Canada to maintain its polio free certification status. This is done by demonstrating (through the capacity to identify non-polio AFP cases) that the provincial surveillance system would be capable of detecting polio should cases arise in Ontario.



## Recommendations:

1. Consider polio in patients with polio-like symptoms (for clinical symptoms of polio, refer to [Canadian Immunization Guide: Poliomyelitis vaccine](#)) and test as per guidance below
2. In Ontario, both acute poliomyelitis and AFP are reportable diseases
  - Report all suspected and confirmed cases immediately to SMDHU using [Reportable Disease Form](#) and faxing to 705-733-7738, OR calling 705-721-7520 ext. 8809 during work hours (8:30 am to 4:30 pm, Monday to Friday) or 1-888-225-7851 after hours
3. Ensure vaccinations are up-to-date, as per the [Publicly Funded Immunization Schedules for Ontario](#). Vaccination against poliovirus is the best prevention for polio. Recommendations for use are available in the [Canadian Immunization Guide: Poliomyelitis vaccine](#).
4. Vaccine can be ordered by using the following order forms: Barrie, Collingwood, Cookstown and Midland [order form](#) or Gravenhurst, Huntsville and Orillia [order form](#).

## Testing for Polio/AFP (see [PHO's Poliovirus Test Information Sheet](#) for details):

1. Collect all the following specimens, ideally within 14 days of onset:
  - Two (2) sets of stool samples obtained at least 24 hours apart. Place each stool sample into a sterile container for viral testing. The clinician should write "Enterovirus / Enterovirus Molecular Serotyping" in the "Test(s) Requested" field of each requisition.
  - One (1) NP swab in viral transport media **OR** 1 throat swab in viral transport media (NP swab is preferred over throat swab).
  - One (1) CSF only if available, in sterile container.
  - One (1) bronchoalveolar lavage specimen if available, in sterile container.
2. If Guillain-Barre syndrome (GBS) is suspected, obtain two (2) additional stool samples 24 hours apart, and place each stool sample in bacterial transport media (e.g., Cary-Blair) and write "Campylobacter Testing" in the "Test(s) Requested" field of each requisition.
3. Fill out [PHO's general test requisition](#) and mention suspect Polio or AFP.
4. Request all the following tests:
  - Enterovirus (or poliovirus) testing
  - Enterovirus (or poliovirus) typing
  - Also, if GBS is suspected, Campylobacter (request on stool only)