



MEMORANDUM

DATE: August 11, 2023

TO: BC Medical Health Officers
Medical Microbiologists
Laboratory Operations Directors
Provincial Microbiology Advisory Group Members

RE: Poliovirus carriage screening in refugees arriving from Dadaab Refugee Complex

Kenya is reporting a poliomyelitis (polio) outbreak in the Dadaab Refugee Complex. The outbreak is confirmed to be caused by circulating vaccine-derived poliovirus type 2 (cVDPV2). The Public Health Agency of Canada (PHAC) recommends screening for cVDPV2 carriage on refugees arriving from the Dadaab Refugee Complex to Canada.

Testing Strategy for Persons from the Dadaab Refugee Complex

All polio stool testing in the community setting must be performed under the direction of the local Communicable Disease MHO unit, and in consultation with a BCCDC Medical Microbiologist. Collected stool samples must be transported to the BCCDC Public Health Laboratory as soon as possible. Samples will be forwarded to the National Microbiology Lab (NML) for testing.

Sample Requirements

Asymptomatic poliovirus carriage screening	Symptomatic poliovirus diagnostic testing	Minimum Volume	Container type
2 stool samples, minimum 48 hours apart.	2 stool samples, minimum 24 hours apart and within 14 days of symptom onset.	2 grams of stool.	Sterile, leak proof container. <i>Note: stools collected from diapers and transferred to the appropriate collection container are acceptable.</i>

Storage and Transport

Storage Conditions	Transport Requirements	Special Considerations
Refrigerate (2-8°C) immediately after collection and transport to BCCDC within 48 hours.	TDG regulations, with Category B packaging in cooler. If samples cannot be transported to BCCDC within 48 hours, the sample must be frozen at ≤-20°C within 72 hours from collection and transported on dry ice to BCCDC.	Samples should not be stored in household refrigerators. Store in provided cooler.

Test Results

The NML is the only WHO Regional Reference Laboratory for poliovirus testing in Canada and is a designated Poliovirus Essential Facility. A negative result relies on a culture negative test which takes 14 days to complete. Molecular PCR-based screening specific for poliovirus can provide presumptive positive results in 5-7 days. Confirmation of a presumptive positive test, with subtype details, can take up to 28 days. Positive results are reported to public health as a Reportable Communicable Disease. Detailed information on additional testing for laboratory diagnostics for polio can be found by searching eLab handbook for poliovirus (<http://www.elabhandbook.info/phsa/>). Please connect with the BCCDC Medical Microbiologist on call (604-661-7033) to facilitate diagnostic or screening polio testing.

Recommendations for facilities that are receiving potentially infectious materials samples

Biosecurity requirements:

- Due to the possibility of poliovirus being present, stool samples are considered potentially infectious materials (PIM). We are in contact with our federal partners with the aim of creating national guidance on risk levels for different work procedures and PIM types. In the meantime, please refer to [Interim Guidance for U.S Laboratory Facilities to Store and Work with Poliovirus Potentially Infectious Materials \(cdc.gov\)](https://www.cdc.gov/pim/guidance/interim-guidance-for-u-s-laboratory-facilities-to-store-and-work-with-poliovirus-potentially-infectious-materials).
- Enhanced Biosecurity protocols must be followed. This includes storing the PIM in locked freezers, segregated from the general inventory, with access limited to trained personnel.
- Verify polio vaccination status for laboratory staff handling PIM. BC recommends a single booster dose 10 years following primary series for polio vaccination, for laboratory personnel that handle PIM.
- Any leftover PIM must be destroyed, inactivated or transferred to a poliovirus-essential facility. Canada's National Authority of Containment (NAC) can be contacted for guidance on containment and disposition of PIM at polio@phac-aspc.gc.ca.