

DATE:	10 June 2024
TO:	Providers in Central, Edmonton, and North Health Zones Providers at Chinook Regional Hospital and Medicine Hat Regional Hospital
FROM:	Alberta Precision Laboratories
RE:	Testing for Bacterial and Parasite Enteric Pathogens

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Effective June 10, 2024, bacterial and parasite testing by polymerase chain reaction (PCR) will be available provincially. This will be done with two separate polymerase chain reaction (PCR) tests, the **Bacterial Enteric Panel** and **Stool Parasite Screen**, which have been used for many years in Calgary and Edmonton. These are the specific changes occurring by site:
 - **Edmonton Base Laboratory (Edmonton Zone, community sites in North & Central Zones):** positive PCR results will now be reported regardless of the confirmatory stool culture results.
 - **Regional Hospital Laboratories (Grande Prairie, Red Deer, Chinook, Medicine Hat):** stool culture and parasite screening will no longer be done on-site. Testing will be centralized in Calgary and Edmonton for the more sensitive and rapid PCR assay. Parasite Screening is already sent to Edmonton for Grande Prairie.
 - **Calgary DSC Laboratory (Calgary Zone, community sites in South Zone):** no changes.
- The Bacterial Enteric Panel tests for *Campylobacter*, *Salmonella*, *Shigella*, and Shiga toxin-producing *E. coli* (STEC). PCR-positive specimens will be cultured for that specific pathogen.
- The Stool Parasite Screen tests for *Giardia*, *Cryptosporidium*, and *Entamoeba histolytica*.

Background

- PCR testing for these pathogens is more sensitive and quicker than culture or DFA/microscopy.
- Detection of nucleic acid may indicate the presence of viable organisms, non-viable organisms, or remnant nucleic acid. A positive PCR test can therefore be seen in current infection or past/resolving/treated infection. As with any test, false positive or false negative results may occur.

Action Required

- Submit stool in a sterile container with no preservative/media if testing for only bacteria and/or *Giardia*, *Cryptosporidium*, *E. histolytica* are needed. Submit both a stool without preservative/media and a stool specimen in a container with SAF preservative is only required when requesting microscopy for parasites (ova and parasite; O&P).
- If testing for additional bacterial pathogens (e.g., *Vibrio*, *Yersinia*) is requested, provide additional history in Connect Care or on the requisition.
- If stool microscopy for other parasites (O&P) is requested, additional history must be provided in CC or on the [Parasite History Form](#).



Questions/Concerns

- For questions about ordering, collection, test selection, and interpretation contact the microbiologist on-call. For general program inquiries contact:
 - Dr. Byron Berenger, Microbiology Provincial Section Chief, APL Byron.Berenger@aplabs.ca
 - Dr. Robert Verity, Site Lead, Edmonton Base Laboratory, APL Robert.Verity@aplabs.ca

Approved by

- Dr. Carolyn O'Hara, Interim Chief Medical Laboratory Officer, APL

Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.