



Newfoundland & Labrador

PROVINCIAL PUBLIC HEALTH LABORATORY NETWORK

Dr. LA Miller Centre, 100 Forest Road, St. John's, NL A1A 3Z9

(709) 777-7233

www.publichealthlab.ca

MEMORANDUM

TO: ALL RHA LABORATORIES AND HEALTH CARE PROVIDERS IN NEWFOUNDLAND AND LABRADOR

RE: OVA AND PARASITES (O&P) STOOL TESTING ENHANCEMENT MEMORANDUM

FROM: NEWFOUNDLAND PROVINCIAL PUBLIC HEALTH MICROBIOLOGY LABORATORY

DATE: June 4, 2021

Background

Bacteria, viruses and parasites, individually and collectively, are infectious causes of both acute and chronic diarrhea. Routinely, if a physician is concerned about infectious diarrhea, stool specimens are tested at PHML using the gastrointestinal multiplex PCR panel (GIPP) that detects the most common bacterial, viral and parasitic pathogens.*

Current Test Enhancement

When parasitic infection is considered as the differential diagnosis in the appropriate clinical context, the specimen is initially tested by GIPP which detects *Giardia spp.*, *Cryptosporidium spp.*, *Cyclospora cayetanensis*, *Dientamoeba fragilis* and *Entamoeba histolytica*.

Additional parasite testing that involves microscopic examination of the liquid stool will be performed at an out of province reference laboratory.

In order to refer out the specimens for O&P (Ova and Parasite) microscopy, the following criteria must be met:

GIPP test is NEGATIVE

AND

History of diarrhea greater than 14 days

AND at least ONE of the *clinical criteria* below:

1. Relevant travel history
2. Recent Immigrant/refugee to Canada (generally within 6 months of arrival)
3. Immunocompromised host (i.e. transplant, cancer, HIV/AIDS, on biological therapy or chronic immune suppressive medications such as steroids)

Please consult the Microbiologist On Call if a GI parasitic infection is suspected or high on your differential diagnosis if the above criteria are not met.

To facilitate the test in a timely manner, all health care providers requesting O&P test are required to indicate relevant clinical information and history on the requisition to avoid delay of test processing.

If appropriate clinical criteria or clinical history is NOT communicated to the laboratory upon receipt of the specimen, the liquid stool will NOT be referred out of province for O&P testing and the laboratory report will specifically indicate this.

Specimen Collection, Transportation and Storage:

If O&P testing is ordered, please collect stool in BOTH SAF transport media AND stool transport container (i.e. Cary Blair medium). Both containers must be submitted in order to process stool O&P orders. Order both GIPP and OVAP mnemonics in Meditech or indicate on approved requisition for both tests.

If stool in Cary Blair transport medium CANNOT be immediately shipped to PHML, please store at 2-8°C if delivery will be within 72 hours. Otherwise freeze and ship frozen (-20°C) if shipment will be delayed or will take over 72 hours.

Stool in SAF is ONLY stored at room temperature; do NOT refrigerate or freeze SAF.

*PCR panel includes: *Salmonella spp.*, *Shigella/Enteroinvasive E. coli*, Shiga-toxin producing *E. coli*, Enteropathogenic *E. coli*, Enterotoxigenic *E. coli*, Enterohemorrhagic *E. coli*, *Campylobacter spp.*, *Yersinia enterocolitica*, *Clostridiodes difficile*, Rotavirus A, Norovirus I/II, Adenovirus, Sapovirus, Astrovirus, *Giardia spp.*, *Cryptosporidium spp.*, *Cyclospora cayentanensis*, *Dientamoeba fragilis*, *Entamoeba histolytica*.

For any acute clinical questions or outbreak testing concerns, a PHML microbiologist is available for consultation 24/7/365 through the hospital operator at 709 777 6300.

Concerns, questions or feedback regarding this lab enhancement can be directed to the PHML Director's Office at: 709 777 7233 or Email: Melissa.Skinner@easternhealth.ca

George Zahariadis MD, FRCPC
PHML Director and Chief

Hedy Dalton-Kenny, MLT, CLX, B. Tech, MHS
PHML Laboratory Operations Manager

