

Date: May 21, 2019
To: Calgary Zone Physicians
From: Microbiology Section, APL
Re: **Bacterial Enteric Panel for bacterial stool testing**

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Key Message:

- **Effective June 3, 2019**, APL Calgary will begin using the Bacterial Enteric Panel, a commercial polymerase chain reaction (PCR) assay, to routinely test diarrheal stool specimens for Shiga toxin-producing *Escherichia coli* (STEC, including O157 and non-O157), *Campylobacter* species, *Salmonella* species, *Shigella* species and *Enteroinvasive E. coli* (EIEC).

Why this is important:

- The PCR assay serves to replace the traditional “Stool C&S” as the primary screen.
- The pathogens detected by this PCR assay collectively account for >95% of bacterial pathogens detected by stool culture annually at APL-Calgary.
- All PCR-positive results will be confirmed by culture until further notice. PCR-positive but culture negative results may represent current infection, past infection, colonization or false positive PCR and will require clinical correlation.
- Testing for additional bacterial pathogens (*Yersinia*, *Vibrio*, and *Plesiomonas* species) will only be performed if an “Extended Bacterial Stool Culture History Form” is submitted along with the stool specimen and the appropriate clinical, exposure or travel history is provided.

Background:

- Detection of these organisms by PCR is more sensitive than by stool culture methods and results are reported more rapidly. Greater than 95% of stools are negative for these pathogens and this rapid molecular screen enables early and accurate reporting of negative specimens.
- Clinical guidelines on testing for infectious diarrhea can be found at:
http://www.topalbertadoctors.org/download/398/infectious_diarrhea_summary.pdf?_20190418190646

Action Required:

- For bacterial stool testing, recommended collection methods have not changed. Stool specimens should be submitted in a sterile container without preservative.
- In Sunrise Clinical Manager (SCM), the PCR panel should be ordered as the “Bacterial Enteric Panel”
- If unusual bacterial pathogens are suspected based on clinical, exposure or travel history, stool specimens should be submitted along with an “Extended Bacterial Stool Culture History Form”.
- Please refer to the APL Calgary guide to services for collection information and the required forms (<http://www.calgarylabservices.com/lab-services-guide/microbiology/Test/Tests/Bacterial-Culture-Stool.htm>).

Inquiries and feedback may be directed to:

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This bulletin has been reviewed and approved by:

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