



Date: November 30, 2020
To: Former Aspen Region Physicians, North Zone Medical Officers of Health
From: Bonnyville Health Centre Microbiology Lab, Alberta Precision Laboratories (APL)
Re: Screening for Shiga Toxin Producing *Escherichia coli* (*E. coli*)

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Key Message:

- Effective November 30, 2020 the Bonnyville Health Centre microbiology laboratory will begin screening all stool specimens for Shiga Toxin producing *E. coli* (STEC) including O157 and non-O157 serotypes.
- Final reports for a culture positive for STEC will state: "Culture positive for Shiga toxin-producing *Escherichia coli* (STEC). Positive for Shiga toxin (Stx) 1, Stx 2, or Stx 1 and 2."

Why this is important:

- STEC is an important cause of diarrheal illness.
- Both O157 and non-O157 serotypes can cause severe infections and may be associated with hemolytic uremic syndrome (HUS).
- STEC strains producing Shiga toxin 2 are more likely to cause HUS.
- Up to 60% of STEC isolates from stool are non-O157 serotypes, which are being missed by current screening methods.
- Timely and accurate diagnosis of STEC infection is important to guide clinical management as antibiotics increase the risk of HUS.
- Isolate serotypes will still be available for epidemiologic tracking and timely outbreak management.

Background:

- STEC Info for Health Care Providers can be found here:
<https://www.albertahealthservices.ca/assets/info/hp/diseases/if-hp-dis-ecoli-stec.pdf>.
Serotyping for O157 and non-O157 groups will be performed at the Alberta Public Health Laboratory (ProvLab).

Action Required:

- No changes to ordering or specimen collection required. Refer to the Laboratory Test Directory for stool sample collection and handling instructions.

Inquiries and feedback may be directed to:

- M.C. Lee, MD.CM, FRCPC, M.Sc, DynaLIFE medical labs, (780) 451-3702 ext. 8365
- Dr. Mireille Kattar, Consulting Pathologist, Alberta Precision Laboratories (APL),
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This bulletin has been reviewed and approved by:

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