Date:   February 10, 2020
To:     Former East Central Health Region Physicians, Central Zone Medical Officers of Health
From:  St. Mary’s Regional Hospital Microbiology Laboratory
Re:    Screening for Shiga Toxin Producing *Escherichia coli* (E. coli)

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message:

- Effective **February 17, 2020** the St. Mary’s Regional Hospital microbiology laboratory in Camrose 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:
Dr. Michael Groeschel, Medical Microbiologist, South Sector, 403-770-3890,
Michael.Groeschel@albertaprecisionlabs.ca

This bulletin has been reviewed and approved by:
Garnet Horne, MD, Regional Lab Medicine Site Chief, Red Deer Hospital Laboratory