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**Date:** June 3, 2019  
**To:** Red Deer/David Thompson Health Region Physicians  
**From:** Red Deer Regional Hospital Microbiology Laboratory  
**Re:** Screening for Shiga Toxin Producing *Escherichia coli* (*E. coli*)

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**Key Message:**

- Effective **June 10, 2019**, the Red Deer Regional Hospital microbiology laboratory will be 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:**

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