ALBERTA PRECISION LABORATORIES
Leaders in Laboratory Medicine

Laboratory Bulletin

Date: **January 27, 2020**
To: **All Physicians, Medical Officer of Health (MOH), Laboratory Managers and Environmental Health Officers**
From: **Alberta Precision Laboratories (APL) – Public Health Laboratory**
Re: **Salmonella Serotyping**

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Key Message:

- *Salmonella* serotyping by PCR-hybridization will be replaced by the *Salmonella In Silico* Typing Resource (SISTR) on February 3, 2020.
- **Why this is important:** The *Salmonella In Silico* Typing Resource (SISTR) is a web-accessible bioinformatics tool developed by the Public Health Agency of Canada - National Microbiology Laboratory that allows users to predict *Salmonella* serovars using draft genome sequencing data. Currently, all *Salmonella* isolates are typed by whole genome sequencing (WGS) as per PulseNet standardized protocol. By using the already available genome sequencing data, the serotyping process will be streamlined. There will be no change in the serovar reporting other than the indication that SISTR was used as the molecular serotyping method. The anticipated turn-around time will be 2 weeks upon receipt of the isolate in Alberta Precision Laboratories – Public Health Laboratory. This updated serotyping methodology will be aligned with other public health laboratories in Canada.

Action Required:

- All frontline microbiology laboratories will submit all confirmed *Salmonella* isolates to Alberta Precision Laboratories – Public Health Laboratories for serotyping.
- Submitting laboratories will need to clearly indicate the detailed testing requirements on the requisition as outlined below:

Isolate Type	Required Details on Requisition	Rationale
Suspect *Salmonella* Typhi/Paratyphi	*Salmonella* Typhi/Paratyphi confirmation or rule out	Ensures additional required testing is performed and WGS is expedited
Isolate for serotyping of confirmed *Salmonella*	*Salmonella* serotyping	
Suspect *Salmonella* (submitting lab unable to confirm if the isolate is a *Salmonella*)	*Salmonella* identification of unconfirmed isolate	Ensures *Salmonella* is confirmed and/or ruled out quickly avoiding unnecessary WGS testing if the isolate is not a *Salmonella species*

Inquiries and feedback may be directed to:

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This bulletin has been reviewed and approved by:

Dr. Graham Tipples, Medical-Scientific Director, Public Health, APL