

July 10th, 2024

24-43

To: IH Physicians, Nurse Practitioners, Infection Preventionists & Communicable Disease Unit
From: Microbiology Working Group; Dr. Helen Bibby, Medical Microbiologist; Melinda Carrier, Health Service Director

Re: Availability of Legionella Urine Antigen Testing at Interior Health Laboratories

Effective July 16th 2024, the IH Laboratory Program will be providing *Legionella* urine antigen testing.

Legionella pneumophila is an unusual but life threatening cause of community acquired pneumonia (CAP), which can be difficult to diagnose. *Legionella* should be suspected in patients with CAP with:

- severe presentation (e.g.: with respiratory failure and/or ICU admission)
- immunocompromise
- failure to respond to beta-lactam therapy
- epidemiologic risk (e.g.: association with *Legionella* outbreak)

Legionella urinary antigen only detects *L. pneumophila* serotype I, the most common serotype responsible for Legionnaire's disease, and may be negative in the mild cases or in early infection.

To ensure accurate diagnosis of *Legionella*:

- Submit urine for *Legionella* urinary antigen testing
- Submit a lower respiratory specimen (eg: sputum, endotracheal aspirate or bronchoscopy) for *Legionella* PCR (which detects all *L. pneumophila* serotypes)
- And, in cases where clinical suspicion remains high despite negative *Legionella* PCR and urinary antigen, contact the medical microbiologist on call for alternative testing for other *Legionella* species (i.e., culture)

Important Information

- Submit a urine specimen (min 5 mL) in sterile screw cap container or boric acid tube. Order:
 - **Legionella Urine Antigen**
- Submit a lower respiratory specimen (sputum, ETT aspirate or bronch wash/lavage) in sterile screw cap container. Order:
 - Bronch: **Virus Covid/Flu+Magpix-BronchW**
 - ETT aspirate: **Virus Covid/Flu+Magpix Endotra**
 - Sputum: **Virus Covid/Flu+Magpix-Sputum**
- Testing will be performed at Kelowna General Hospital for the Okanagan and Kootenay areas, and Royal Inland Hospital for the Thompson Cariboo Shuswap area.

July 9th, 2024

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Action Required

- Urine specimens for Legionella urine antigen testing should be refrigerated and transported to your local IH laboratory lab within 12 hours.