

DATE:	2022 October 3
TO:	All Zones: Physicians, Nurses and Healthcare Practitioners, and all Laboratory Services Staff
FROM:	DynaLIFE Medical Labs and Alberta Precision Laboratories
RE:	Update to Routine Acute Pharyngitis Screening: addition of <i>Arcanobacterium haemolyticum</i> target to existing molecular NAAT Assay (only applicable to locations that send testing to DynaLIFE)

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Key Message

Effective October 3, 2022, *DynaLIFE* Medical Labs will be updating its acute pharyngitis screening program.

- *Arcanobacterium haemolyticum* will be routinely screened for on the existing *DynaLIFE*-developed molecular NAAT Assay (ROCHE Cobas system) with each throat swab submission alongside that for *Streptococcus pyogenes* (Group A Streptococcus).
- *Arcanobacterium haemolyticum* will be resulted when detected.
- This diagnostic test update does not require any change on your part.

Background

- *Arcanobacterium haemolyticum* causes pharyngotonsillitis in children and, primarily, in young adults and has been estimated to be responsible for 0.5% - 2.5% of all bacterial pharyngitis with the highest incidence being significantly in the 15 to 18-year-olds. *Arcanobacterium haemolyticum* is generally susceptible to penicillins and macrolides.

Why This is Important

- *Arcanobacterium haemolyticum* as an infectious agent of pharyngotonsillitis is often underdiagnosed because (1) it is not routinely screened for in pharyngeal swabs unless pertinent clinical information is provided with a specimen submission (i.e. traditionally based on clinically-driven targeted testing) and (2) its detection can be hampered by limitations associated with bacterial culture and inhibitory oral flora.
- Under detection of *Arcanobacterium haemolyticum* pharyngotonsillitis contributes to missed or delayed diagnosis and can sometimes lead to ensuing clinical complications, including peritonsillar abscesses, airway obstruction, Lemierre's syndrome, pneumonia, and sepsis.

Action Required

- Please submit a pharyngeal swab on patients with suspect bacterial pharyngitis as per routine practice.
- Please indicate "Penicillin allergy" if your patient has one to ensure antibiotic sensitivity is provided to you.

Questions/Concerns

- Drs. MC Lee, T. Dragan or the microbiologist on call at *DynaLIFE* Medical Labs for any further questions.

Approved by

- Dr. Erene Farag, Medical Director, *DynaLIFE* Medical Labs
- Dr. Carolyn O'Hara, Interim Chief Medical Laboratory Officer, Alberta Precision Laboratories