

**Date:** July 21, 2016

**To:** All Physicians, All Zones, IPC, Medical Officers of Health,  
Infectious Diseases Physicians and Public Health Physicians

**From:** Provincial Laboratory for Public Health (ProvLab)

**Re:** Implementation of RIDA<sup>®</sup>GENE Bordetella Assay at ProvLab

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**Key Messages:**

- *Bordetella pertussis* is the causative agent of pertussis, while *B. parapertussis* causes an often milder pertussis-like illness. *B. holmesii* has an unclear association with pertussis-like illnesses and has been identified in < 1% of specimens tested for pertussis<sup>1</sup>.
- ProvLab historically detected *B. pertussis* using a manual laboratory developed PCR based assay. Starting August 2, 2016, ProvLab will use the Health Canada-approved RIDA<sup>®</sup>GENE Bordetella assay for the detection of *B. pertussis*, *B. holmesii* and *B. parapertussis* with an expected turn-around-time from receipt in ProvLab of 48 hours.
- Results for multiple species of *Bordetella* will be present on patient laboratory reports.
- As per current protocol, Public Health will still be notified only of *B. pertussis*-positive cases.
- *B. holmesii*-positive specimens are expected to occur rarely. Because the new assay cannot rule out *B. pertussis* infections in *B. holmesii*-positive specimens, ***B. holmesii*-positive specimens will be reported as indeterminate for *B. pertussis*.**

**Actions Required:**

- Collect samples in Regan Lowe Transport Media, available via your current ordering process. For additional collection information refer to the ProvLab Guide to Services:
- (<http://www.provlab.ab.ca/guide-to-services.pdf>).
- Note differences in laboratory reports; reports will no longer only contain results for *B. pertussis* but will also include results for *B. pertussis*, *B. holmesii*, or *B. parapertussis*.

**Why this is important:**

- Care should be taken when interpreting laboratory results for *Bordetella* detection.
- Questions related to the interpretation of these laboratory results should be directed to the ProvLab Edmonton Microbiologist on Call (Call Locating at 780-407-8822).

1. Guthrie JL, Robertson AV, Tang P, Jamieson F, Drews SJ. J Clin Microbiol. 2010 Apr;48(4):1435-7. Novel duplex real-time PCR assay detects *Bordetella holmesii* in specimens from patients with Pertussis-like symptoms in Ontario, Canada.

**Inquiries and feedback may be directed to:**

Dr. Steven Drews, Clinical Virologist ProvLab: [steven.drews@albertahealthservices.ca](mailto:steven.drews@albertahealthservices.ca) or 780-407-3068

**This bulletin has been reviewed and approved by:**

Dr. Graham Tipples, Medical / Scientific Director, Provincial Laboratory for Public Health