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**Date:** September 29, 2014

**To:** TB Physicians in Alberta

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

**Re:** Detection of *Mycobacterium tuberculosis* and rifampin resistance in *M. tuberculosis*

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**Key Messages:**

- Effective October 1, 2014, a new PCR based assay for the detection of *M. tuberculosis* will be implemented at the Provlab north site in Edmonton.
- This assay, termed the Xpert<sup>®</sup>MTB/Rif PCR assay, will simultaneously detect the presence of *M. tuberculosis* and rifampin resistance in a single respiratory specimen.
- All respiratory specimens from Northern Alberta requiring PCR for *M. tuberculosis* will be assayed using this system.
- The current PCR assay for *M. tuberculosis* in operation at the Provlab South site in Calgary (*artus*<sup>®</sup> *M. tuberculosis* PCR assay) will continue to be used at this time for the detection of *M. tuberculosis* from respiratory specimens for patients from southern Alberta.
- Should a rapid rifampin assay be required for specimens from *M. tuberculosis* positive patients seen in southern Alberta, specimens can be transported to the Provlab north site and assayed using the Xpert<sup>®</sup>MTB/Rif PCR assay.
- NOTE: Only if rifampin resistance is detected (i.e. positive) will the results of the rifampin assay be reported.

**Why this is important:**

Implementation of the Xpert<sup>®</sup>MTB/Rif PCR assay will:

- Provide rapid PCR results for *M. tuberculosis* detection at a reduced cost compared to previous.
- Provide a rapid assay for the detection of rifampin resistance in *M. tuberculosis*

**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. Provincial Laboratory for Public Health