

August 2010

Tuberculosis and Mycobacteriology Laboratory Update

To health care providers:

New Test for the Rapid Detection of *M. tuberculosis* complex (MTBC) and Genetic Markers for Rifampin and Isoniazid Resistance in Cultures

The Tuberculosis (TB) and Mycobacteriology laboratory of the Ontario Agency for Health Protection and Promotion (OAHPP) public health laboratories (PHL) has introduced the GenoType MTBDR*plus* assay (HAIN Lifescience, Germany) to detect the presence of *M. tuberculosis* complex (MTBC) DNA and the most common mutations conferring resistance to Rifampin and Isoniazid. The new test will be conducted at the TB and Mycobacteriology laboratory at PHL, Toronto as a rapid, optional additional test to routine phenotypic susceptibility testing.

The GenoType MTBDR*plus* test will be performed **upon request only** by the attending physician, when a patient is considered to be at high risk for drug resistance. For example:

- Patient was previously treated for tuberculosis
- Patient has defaulted on treatment
- Patient is a known contact of an MTBDR case

The GenoType MTBDR*plus* assay is approved for use in Canada on cultures of MTBC. Use of the GenoType MTBDR*plus* assay for direct detection from smear-positive specimens will be for investigational/research purposes only.

GenoType MTBDR*plus* results are reported in 24 hours. The average turnaround time for routine phenotypic drug susceptibility testing, after the culture has grown, is seven days. Since the GenoType test detects only the most common markers for Rifampin and Isoniazid resistance, all results will be considered as preliminary, to be confirmed with full panel phenotypic drug susceptibility testing.

For further information or to request the GenoType MTBDR*plus* test, please contact:

- TB and Mycobacteriology Laboratory, Toronto, phone **416-235-5928**, fax **416-235-6013**, or contact your local OAHPP laboratory.
- Pam Chedore, manager, TB and Mycobacteriology Lab, Toronto, **416-235-5993**
- Dr Frances Jamieson, medical microbiologist, **416-235-5841**
- OAHPP Laboratory Helpline **1-800-640-7221**
- For the OAHPP Specimen Collection Guide and previous Labstracts refer to <http://www.oahpp.ca/publichealthlaboratories.php>