

Latent TB: Your Questions Answered

Is TB relevant to my practice and to the Middlesex-London community? TB is a potentially fatal disease that is found worldwide. Each year, there are 10 – 15 cases of **active** TB, and 350 – 400 cases of **latent (inactive)** TB infection (LTBI), identified in the Middlesex-London region. Some of your patients may come from countries (Africa, Asia, E. Europe) or communities (Indigenous Canadians) where TB is more common. You may also have patients who require TB testing for work or school.

How likely would it be for my patient with LTBI to develop active disease?

Approximately 5-15% of those with LTBI develop active TB in their lifetime. Very young and very old individuals are more likely to develop active TB, as are immigrants from endemic countries in their first 2 years in Canada. Those with immunocompromising conditions (like HIV, transplant or dialysis patients) or who are on medications affecting the immune system (prolonged prednisone >15mg/d, methotrexate, immunosuppressing 'biologics') are also more likely to develop active TB. It is important to test these individuals for LTBI, because treatment can prevent active TB.

What tests are available to diagnose LTBI?

LTBI can be diagnosed through two tests:

- TST: Tuberculin skin test is an intradermal injection of TB bacterial antigen (also called PPD or purified protein derivative), causing a raised lesion on the skin within 48 – 72 hrs if positive. Please refer to [this document](#) for more information about administering and reading the TST.
- IGRA: Interferon gamma release assay is a blood test measuring cell-mediated immunity to TB. In Ontario, this test is NOT OHIP COVERED, and patients pay ~\$90.

Which test is right for my patients?

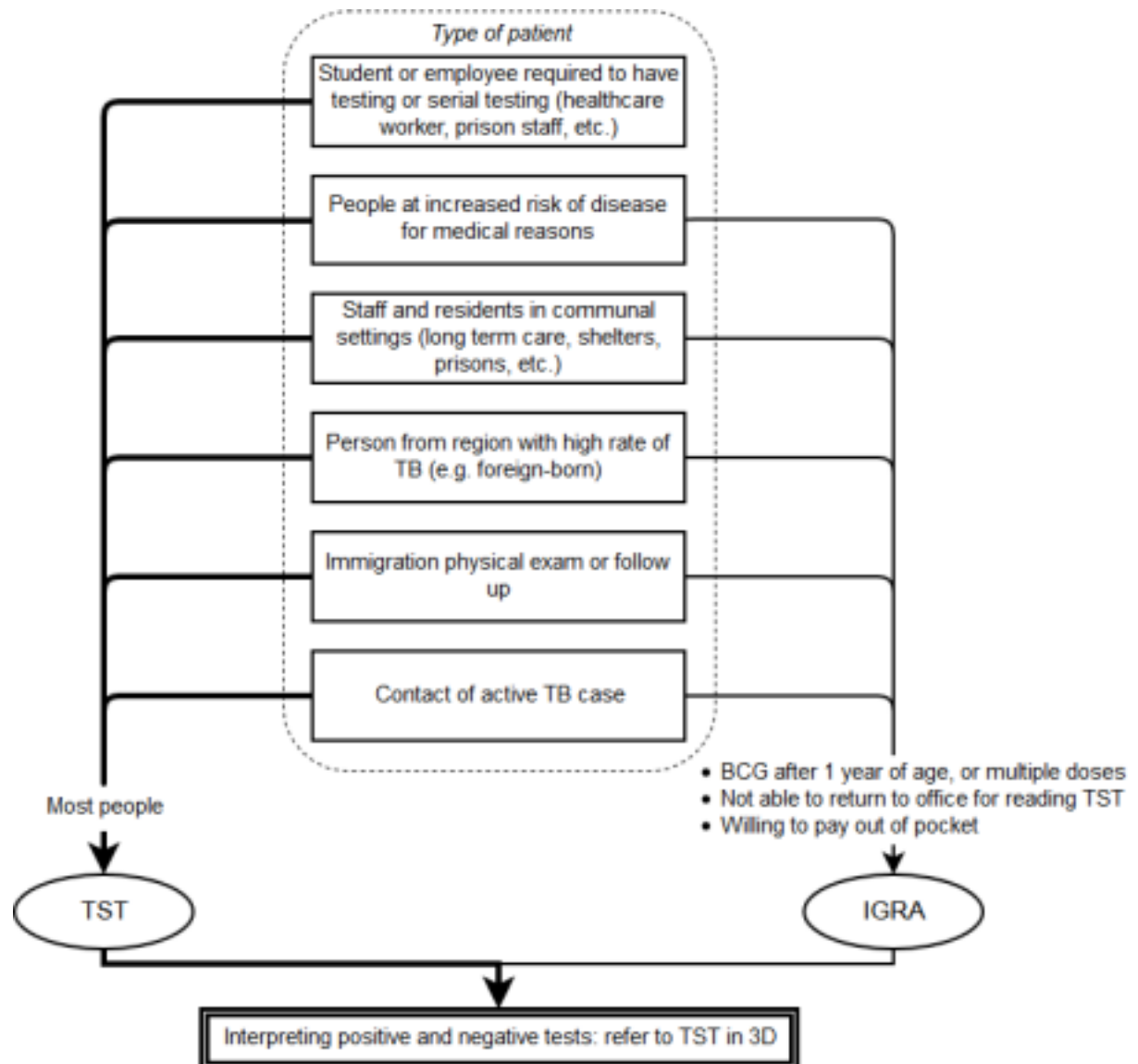
Each of these tests has different properties and likelihoods of false positive and false negative results. TST is the test of choice for most patients, including those who require testing for screening purposes or serial testing for work or school. It is also indicated for those who may have had BCG vaccination as an infant before the age of 1. Of note, vaccination is completed before the age of 1 in most countries that have a BCG vaccination program. IGRA would only be indicated in patients who have had multiple BCG vaccinations, or BCG after the age of 1. For a map of countries offering BCG over time, refer to the [BCG World Atlas](#). Both TST and IGRA remain positive for life after infection, and neither test can reliably differentiate active versus latent TB.

How do I interpret TST or IGRA results?

[TST in 3D](#) is an excellent Canadian online tool that calculates the positive predictive value of the test and a person's risk of developing active TB, based on features such as the result from TST and IGRA, BCG status, and other clinical risk factors.

When should I recommend my patients to get both TST and IGRA? Patients with a positive TST or IGRA do not require further testing. High-risk patients with a negative TST or IGRA may benefit from the other test to enhance sensitivity. Your patient's specific situation can be evaluated using the [TST in 3D](#) tool.

This flowchart describes considerations for using and interpreting TST and IGRA:



How can my patients get treated for LTBI?

Patients with positive TST or IGRA should be [reported](#) to the Middlesex-London Health Unit (MLHU) and assessed for active TB. Medication for the treatment of latent or active TB infection can be ordered for free through MLHU using [this form](#). If you have any TB-related questions or wish to refer your patient to MLHU for management of active or latent TB, please contact us at 519-663-5317. You may also wish to refer to our [online TB resources](#), or the comprehensive [Canadian TB Standards](#)

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