Tuberculosis is a bacterial infection acquired by breathing in Mycobacterium bacilli in droplets released from the lungs or airways of an infected individual, usually through coughing or sneezing. In 90% of infected individuals the bacilli remain inactive and progression to active (infectious) disease never occurs – this is called latent TB infection. About 10% of infected individuals develop active TB disease, most commonly affecting the lungs. Symptoms of pulmonary TB include persistent cough or fever lasting more than three weeks, bloody sputum, night sweats, and unexplained weight loss. Both latent TB infection and active TB disease can be cured with antibiotic medication.

Latent TB infection is diagnosed with a tuberculin skin test (TST). A negative TST usually means there is no infection; a negative test can also occur after recent infection (it takes three to eight weeks after exposure for the skin test to become positive), or in individuals with a weak immune system (for example, due to HIV infection or active TB disease). A positive TST usually indicates latent TB infection; a false-positive test without latent TB infection can occur after BCG vaccination or infection with other TB-like bacteria.

Faculty of Health Sciences TB requirements for Health Professional programs

Protection with N95 mask – Administered by the Safety Office: N95 Respirator Education and Fit Testing

Screening prior to program start – Administered by the Health Screening Office for all programs:
- If no previous positive TST or other positive TB history, students are required to submit a baseline two-step TST, which is two separate tests, ideally 7-28 days apart, but may be up to 12 months apart, requiring four visits to a health care professional. This includes students who have had previous BCG vaccination. IGRA serology (T-Spot or Quantiferon) may be submitted as an alternative to skin testing by international visiting elective students and postgraduate fellows who cannot access skin testing in their home country.
- Students with a previous documented positive TST or other positive TB history are required to submit a chest x-ray report dated subsequent to the positive TB history. Students with a normal chest x-ray and no symptoms of active TB disease are not contagious and will be fully cleared for participation in clinical activities.

Continuing surveillance after program start:

Postgraduate Medicine – Administered by hospital occupational health services

All other programs – Administered by the Health Screening Office:
- TB conversion: Students with baseline negative TB screening who subsequently convert to a positive TST during their program must be cleared by the Health Screening Office before they may return to clinical activities.
- Annual screening:
  o Previous negative TST: Students complete a risk assessment questionnaire and a single TST will be required only if students have been exposed to tuberculosis (note some placement sites may require a more recent TST; students are responsible to be aware of their placement site’s requirements).
  o Previous positive TST: Students complete an update form to verify they have no symptoms of active TB disease.

Risk assessment questionnaire: This is a useful tool for students to refer to at any time during their program

<table>
<thead>
<tr>
<th>TB Exposures</th>
<th>Do any of the following apply since your last negative TST?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Significant exposure to an individual with active (infectious) TB disease (i.e. lived with or had an intimate relationship with someone with active TB, or notified by Occupational Health or Public Health about possible exposure to active TB disease)</td>
<td></td>
</tr>
<tr>
<td>Clinical placement in health care facility with high risk of exposure to infectious TB disease</td>
<td>Yes</td>
</tr>
<tr>
<td>Lived or worked in a country with a high incidence of TB (30 or more cases per 100,000). See rate in first column in report: <a href="http://www.who.int/tb/publications/global_report/gtbr2016_annex4.pdf?ua=1">http://www.who.int/tb/publications/global_report/gtbr2016_annex4.pdf?ua=1</a></td>
<td>Yes</td>
</tr>
</tbody>
</table>

If “Yes” applies to one or more questions, student should have a single TST eight or more weeks post-exposure.

For more information see:

OHA/OMA Tuberculosis Surveillance Protocol for Ontario Hospitals
Hamilton Public Health tuberculosis reporting guidelines and resources
Tuberculosis FAQ Public Health Agency of Canada
Canadian Tuberculosis Standards 7th Edition

Health Screening Office, MDCL 3514, 1280 Main Street West, Hamilton ON L8S 4K1, (905) 525-9140 ext 22249, fax 905-528-4348