Tuberculosis (TB) 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 (hemoptysis), 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 tuberculin skin testing (TST) or IGRA serology (Quantiferon or T-Spot). Negative TST usually means there is no infection but 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). Positive TST usually indicates latent TB infection but can also occur after BCG vaccination (especially if the vaccine was given after age 12 months or more than once), or infection with other TB-like bacteria. Individuals with positive TST should not have a repeat TST.

Faculty of Health Sciences TB requirements for Health Professional programs:

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

Screening prior to program start:

- Baseline two-step TST is required unless a two-step test from any time in the past or a positive TST or positive IGRA serology or previous treatment for TB is documented. A two-step TST requires four visits to a health care provider – step one is planted day one and read 2-3 days later, step two is planted between 7 days and 12 months after step two (ideally 7-28 days) and read 2-3 days later. Documentation of additional single TST is required if a previous negative two-step test was completed before March 1st the year of program entry. Note TST must be given either BEFORE (can be the same day) or at least 28 days AFTER a live vaccine (MMR, Varicella). IGRA serology may be submitted as an alternative to skin testing ONLY by international visiting elective students.

- If positive TST or other positive TB history is documented, a chest x-ray report dated subsequent to the positive TST or positive TB history is required. A medical assessment should be performed under the direction of a physician. In the absence of active TB disease, a referral should be considered for assessment and treatment of latent TB infection. 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: See TB Risk Assessment & TST Conversion

Students with baseline negative TB screening who are exposed to active (infectious) TB during their program are required to have a TST eight or more weeks post-exposure. Students who convert to a positive TST during their program must withdraw from clinical activities and report the result to their Program Manager and Health Screening Office immediately; the Health Screening Office will determine when students may return to clinical activities.

For more information click on:

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

Questions? Contact the Health Screening Office: 905-525-9140 ext 22249, hrsadmin@mcmaster.ca