

Tuberculosis (TB) for Managers/Supervisors

Occupational and Environmental Safety & Health

What is Tuberculosis (TB)?

Tuberculosis (TB) is an infectious bacterial disease that is caused by *Mycobacterium tuberculosis*. TB most often affects the lungs but can also infect the brain, abdomen, bones, joints, larynx, lymph nodes, or spine. There are two types of TB Infection: latent (dormant) TB infection (LTBI) and active TB disease.

TB is only contagious when it is in its active form. TB is spread through the air and usually through close, prolonged contact with someone who has TB. The bacteria can get in the air through droplets from coughing and sneezing and remain there for hours. When the TB bacteria are breathed in, one of three things can occur:

- Your immune system will kill the bacteria.
- The bacteria will remain alive, but your immune system keeps them dormant (inactive) in your body, resulting in latent tuberculosis infection (LTBI). This means you don't have any symptoms of TB right now and cannot spread the disease to others. If you have latent TB, it can become active TB later.
- You can develop active disease, either soon after becoming infected or years later.

Note: if your body's defenses are strong, your body will usually control the infection and LTBI may never convert to active TB. If the immune system is compromised, for example, if a person with LTBI develops a chronic illness (e.g., HIV) or is taking cancer treatments or other immune suppressive drugs, the TB can be activated.

Tuberculosis is preventable and curable. Active TB can be treated with medication. LTBI can be treated to prevent the disease from activating later.

What are the symptoms of active TB?

Cough lasting more than 3 weeks, fever, night sweats, unexplained weight loss, unexplained loss of appetite, hoarseness, chest pain, fatigue, and blood in sputum.

WRHA and Tuberculosis

The following programs exist within the WRHA: WRHA Integrated TB Services, Population and Public Health (public), Infection Prevention and Control (patients), and Occupational and Environmental Safety & Health (staff).

Healthcare workers and TB

The incidence of active tuberculosis in Canada is generally low. However, exposure to people with undiagnosed active respiratory tuberculosis disease does occur in health care settings. Some healthcare workers are at increased risk of infection when performing aerosolizing procedures (e.g., bronchoscopy, intubation, sputum induction, autopsy) if correct personal protective equipment is not used. Consult the WRHA Infection Prevention and Control Manual(s) found here <https://www.wrha.mb.ca/extranet/ipc/manuals.php> for information regarding aerosol-generating medical procedures, and personal protective equipment.

What is an occupational exposure to TB?

An occupational exposure occurs when a healthcare worker shares the same airspace with an individual with active TB while **not** following infection control practices, such as not wearing personal protective equipment (N95 respirator), when it is not yet known a patient/client/resident has active TB. In general, non-respiratory active TB disease is not communicable, unless fluid from the site is aerosolized.

There is no specific length of time in which transmission may occur as each TB case is individual and depends on the infectiousness of the source case, extent of exposure and immunologic vulnerability.

What do I do if I think a patient/client/resident has Active Tuberculosis?

Implement Airborne Precautions immediately. Consult the appropriate Infection Prevention & Control (IP&C) manual found here: <http://www.wrha.mb.ca/extranet/ipc/manuals.php> for specific measures. Contact Occupational Health who will manage staff exposures.

Occupational and Environmental Safety & Health and Tuberculin Skin Test (TST)

All staff that comes into contact with Patients, Patient care environment, Patient care equipment, and blood or body fluids must book a documentation appointment with the Occupational Health Nurse (OHN) when newly hired or transferring. At the appointment the OHN will gather a past medical history, immunization history and information related to tuberculosis exposures and previous tuberculin skin testing. Those with a previous positive TST result or previous diagnosis of active/latent TB will be educated about symptoms, treatment, etc. Staff who cannot provide documentation of a TST test within the last 12 months will require one administered by the OHN.

Annual TST testing is performed by the OHN in areas with a high risk of TB exposure.

Occupational and Environmental Safety & Health (OESH) and possible TB exposures

Occupational Health becomes involved when notified of a potential exposure by a staff member, manager, Infection Prevention and Control, etc. The Occupational Health Nurse will determine which staff members were exposed based on investigation and input from the Manager/Supervisor, assignment sheets, scheduling system, etc.

OESH (OHN and Physician) individually assess staff exposures, risks and previous TST results and will advise as follows:

- Staff **with** previous positive documented TST, previous treatment for TB disease or previous treatment for latent TB infection who are
 - **Symptomatic** will be sent for further testing (e.g., chest x-ray). They are not required to be excluded from work while awaiting the results but should be encouraged to don a mask as with any respiratory illness.
 - *Positive Results of further testing* – will be excluded from work during treatment (usually approximately 2 weeks but may be longer in certain situations – e.g., multidrug resistant TB) and referred to and treated by Respiratory Out-Patient Clinic at HSC. IP&C will advise OESH when treatment is complete. **Staff must receive clearance from OESH prior to returning to duties.**
 - *Negative Results of further testing* – do not require exclusion from work. Treat as asymptomatic. As with any respiratory symptoms, continue to don a mask until asymptomatic.
 - **Asymptomatic** will be educated about signs and symptoms and told to report such immediately if they develop.
- Staff **without** previous positive documented TST, previous treatment for TB disease or previous treatment for latent TB infection will book an appointment with the Occupational Health Nurse 8 weeks following possible exposure at which time a TST will be performed.

If employees or managers/supervisor have further questions, please contact your site Occupational Health Nurse.

Note: At all times staff with respiratory symptoms should be encouraged to stay home from work.