

### Tuberculosis (TB) Screening in Long Term Care and Retirement Homes Frequently Asked Questions

#### 1. Why are TB skin tests (TSTs) no longer recommended for residents' age 65 years and over?

Routine TSTs upon admission are no longer recommended for clients 65 years of age and older. As people reach old age, the TST may become increasingly unreliable and difficult to interpret. In this population, the TST may not become positive even after a significant TB exposure. As well, unless there is a documented 2-step TST on record, testing after exposure may result in the "boosting effect" being misinterpreted as a true conversion.

Most critically, even for elderly individuals who do convert to a positive TST following a TB exposure, prophylaxis is often not possible, due to their decreased ability to tolerate the hepatotoxicity of Isoniazid (INH).

For an elderly person exposed to infectious TB, the most important follow-up is ruling out active TB via careful evaluation of symptoms, chest x-ray (CXR), and where indicated, 3 sputum samples taken at least 1 hour apart.

Clients under 65 years of age who have a positive TST are more likely to be candidates for TB prophylaxis. In addition to the symptom review for active pulmonary TB disease and CXR, a 2-step TST is required for those less than 65 years of age, unless a previous TST is known to be positive.

# 2. A person had a CXR done 2 months ago but now has symptoms that could be due to active pulmonary TB. Should a repeat CXR be done prior to admission to our facility?

Yes. If the person has symptoms suggestive of active TB (i.e. cough lasting longer than two-three weeks, unexplained weight loss, fever, chills, night sweats, fatigue), a medical assessment and a chest x-ray should be done to rule out active pulmonary TB disease.

In addition, 3 sputum samples should be collected at least one hour apart and submitted to the Public Health Laboratory for testing (Acid Fast Bacilli and Culture). Before admitting the person, all sputum results should be negative and active pulmonary TB disease ruled out.

#### 3. What is recommended for residents being transferred from another facility?

Prior to transfer, the resident should be carefully reassessed for signs and symptoms of active TB, including failure to thrive. This should include a review of the CXR done upon admission to the facility or more recent CXR.

If there are any indications of possible active TB, a repeat CXR, sputum testing, and any other necessary investigations should be done to rule out active pulmonary TB disease before the resident is transferred.

#### 4. If a staff person has received the BCG vaccine in the past do they still need a TST?

Yes. TB skin testing is required for staff who has received BCG vaccines in the past. People vaccinated with BCG may have a positive TB skin test if the BCG was given after infancy. However, it is also possible for this positive TST to have been caused by TB infection, especially if the person was born in or travelled to a country with high rates of TB. It is worth remembering that countries with much higher rates of TB than Canada also use BCG routinely. Thus, adults with a positive skin test who had a BCG vaccination should still be carefully evaluated for possible latent TB infection (LTBI), and be offered treatment for LTBI if appropriate.

The following resources may be helpful in interpreting a positive TST:

- Online TST/IGRA interpreter
- BCG World Atlas A Database of Global BCG Practices and Policies
- International TB rates by country

#### 5. What is a 2-step skin test for TB?

It is performing two TSTs one to four weeks apart if there is no previously documented 2-step TST.

In some people infected with *M.tuberculosis*, the reaction to the tuberculin may wane over time. In those cases, a one-step TST may produce a false negative result. However, the first TST can stimulate the immune system, resulting in a positive or "boosted" reaction to subsequent tests. A second TST, performed one to four weeks later, will reduce the chance that a "boosted" reaction will be misinterpreted as a recent infection, if exposure occurs at a later date.

A two-step TST should be performed if subsequent TSTs will be conducted at regular intervals or after exposure to an infectious TB case.

The two-step TST needs to be performed only ONCE if it has been properly documented. Any subsequent TST can be one-step, regardless of how long it has been since the last TST.

## 6. What if a new employee/volunteer had a 2-step TST done, but the 1st and 2nd steps were done more than 4 weeks apart?

The first and second step of a 2-step TST should be done one to four weeks apart. Less than 1 week does not allow enough time to elicit the "booster" phenomenon, more than 4 weeks allows the possibility of a true TST conversion to occur if the person had an exposure to infectious TB in the interim. However, the 2nd test can be accepted up to 1 year later as long as no exposure to active TB occurred between the first and second TST.

### 7. What if a new employee/volunteer had a TST done within the last year, but never had a 2-step TST done?

If the first TST result was interpreted as positive no further skin testing should be done.

The person should proceed with a physical exam and a CXR to rule out active TB disease.

If the first TST was interpreted as negative, another TST can be done and documented as the 2nd step of a 2- step TST as long as it is within one year from the time of the first TST.

If an exposure to active TB is suspected within this time frame, consult the Durham Region Health Department for further guidance.

For additional information regarding TB screening please contact Jazin Bond, Program Manager at Durham Region Health Department at (905) 668-7711 ext. 2968 or the Health Department Infectious Diseases Line at (905) 668-7711 ext. 2996.

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