

QUICK REFERENCE ON TB SKIN TESTING: (cont'd)

Tuberculin Reaction Size (mm of induration)	Setting in which reaction considered significant (meaning probable TB infection)
0-4	HIV infection AND expected risk of TB infection is high (i.e., patient is immigrant from country where TB is endemic, is a household contact or has an abnormal radiograph). * This reaction size is not normally considered significant, but in the presence of immune suppression may be important.
5-9	HIV infection.* Close contact of active contagious case. Abnormal chest radiograph with fibronodular disease.
≥ 10	All others.

*All clients with HIV are high risk and should be seen by a TB specialist.

Skin test results should be recorded in **mm of induration**, not simply as "positive" or "negative".²

Erythema **should not** be included in the measurement of a skin test. Redness does not indicate TB infection.¹

Store PPD preparation between +2° C and +8° C.

Date the vial of tuberculin when first opened.

Discard a vial of tuberculin preparation that has been opened and used **after 1 month**, as potency may be reduced.

- If either the first or second skin test is **positive**, the person should be evaluated further to rule out active TB disease (i.e. medical evaluation re: risk factors for TB, chest radiography, and in presence of symptoms, sputum for acid fast bacilli smear and culture).²



Hamilton



Treatment of LTBI is recommended for persons at greatest risk of TB disease. Including TST results of:

- ≥ 5mm with individuals who are HIV infection, recent contacts of infectious TB, or where there is presence of lung scar compatible with old TB
- ≥ 10mm with individuals who are converters in the last 2y or immunosuppressed

INH is recommended in a dose of 10-15mg/kg daily for children, up to a maximum of 300mg per day. For adults the dose is 300 mg per day. The addition of vitamin B₆ in a dose of 25 mg is often indicated.²

Nine months of daily therapy is indicated for optimal protection.²

TB medications for prophylaxis and treatment are free through Public Health.



Hamilton Public Health Services

TB Control Program

General Inquiries.....905-546-2424 ext. 6636
Reporting Fax.....905-546-4841

TB Clinics

Charlton TB Clinic.....905-522-1155 x 4198

References

1. Aventis Pasteur. (2000). Tuberculin Skin Test Guidelines.
2. Canadian Lung Association. (2000). Canadian Tuberculosis Standards. (5th Edition). Ottawa: Canadian Lung Association.
3. Ontario Ministry of Health and Long Term Care. (1998). Ontario Ministry of Health Tuberculosis Protocol.



QUICK REFERENCE ON TB SKIN TESTING

- Administer **0.1 mL of 5 tuberculin units (5-TU)** of purified protein derivative (PPD), injected intradermally on volar aspects of the forearm.²
- If no weal appears, inject another 0.1 mL of PPD 5 cm from the previous site or in the other arm.¹
- Record the time, date, lot number, expiry date and dose of PPD injected and the site(s) of injection.³
- Patients should wait at least 15 minutes after injection to monitor signs of anaphylaxis.
- Tests should be read and recorded after 48 to 72 hours by a trained health professional.²
- Measure induration not erythema across width of the arm (i.e. transverse to the long axis of the forearm) and record in mm.²

Contraindications for skin test:

- Patients with documented active TB or a clear history of treatment for TB infection or disease.
- Patients with severe blistering tuberculin reactions in the past.
- Patients with extensive burns or eczema.
- Patients with major viral infections or live-virus vaccinations in the past month i.e., MMR, Varivax

A skin test may be administered before, on the same day or 30 days after a live-virus vaccination i.e., MMR.¹

Not a contraindication for skin test:

- Pregnancy
- Patients with a history of Bacille Calmette-Guerin (BCG) vaccination.²

- Assists in establishing a true baseline result for people who will be getting serial TB skin test.
- A positive skin test may gradually wane over the years. The initial skin test completed as part of the 2-step process may stimulate the immune response, and a positive reaction may occur when a person is retested 1 to 4 weeks later. This delay response is called a booster phenomenon.²
- If a baseline is not measured through 2-step skin testing, a positive skin reaction on subsequent tests may be interpreted as a conversion (i.e. TB infection), when in fact the positive skin reaction may represent the booster phenomenon (i.e. previous TB infection).

People who are beginning a schedule of skin testing at regular intervals should have a 2-step as their initial test.

- Health care professionals
- Corrections staff
- Traveler's who are going to an area with high prevalence of TB for 1 month or more.²
- Residents of long-term care facilities.
- Shelter staff.

- Administer **0.1 mL of 5-TU of PPD** intradermal as usual for each test.²
- If reaction of first skin test is **negative**, a second skin test is administered 1 to 4 weeks later.²
- If reaction on the first skin test is **positive**, a second skin test should not be administered.
- For people on a regular TB screening schedule, only the initial round of testing needs to be 2-step. Once baseline is established, subsequent routine testing (i.e. annually) is 1-step only.

- Administer **0.1 mL of 5-TU of PPD** intradermal as usual for each test.²
- Perform an initial skin test as soon as exposure to an active case of TB is identified.
- Conversion of a skin test from negative to positive after exposure to an active case may take 8 to 12 weeks. Therefore if the reaction on the first skin test is **negative**, administer a second skin test in 8 to 12 weeks after the contact's last possible exposure to the active case.²
- If the reaction on the first skin test is **positive**, a second skin test should **not** be administered.
- **There is no indication for 2-step skin testing for a contact of active TB.** Skin test conversion can occur as early as 2 weeks. It is difficult to differentiate true conversion from the booster phenomena. Any change in skin test reactivity must be considered as a true conversion.²
- **Contacts are identified by Public Health and provided with documentation for further follow-up from their physicians.**