Mantoux tuberculin skin test

Administration

For each patient, conduct a risk assessment that takes into consideration recent exposure and clinical conditions that increase risk for TB disease if infected, to determine if the skin test should be administered. The goal of testing is to identify these individuals who could benefit from treatment of Latent TB Infection.

1 Locate and clean injection site

- 2 - 4 inches below elbow joint
  - Place forearm palm side up on a firm, well-lit surface
  - Select an area free of barriers (e.g. scars, sores)
  - Clean the area with an alcohol swab

2 Prepare syringe

- Check expiration date on vial and ensure vial contains tuberculin (5 TU per 0.1 ml)
- Use a single-dose tuberculin syringe with a ½ to ¼ inch, 26 gauge needle with a short bevel
- Draw up 0.1 ml of tuberculin

3 Inject tuberculin

- Insert slowly, bevel up, at a 5- to 15-degree angle

4 Check skin test

- Wheal should be 6 to 10 mm in diameter. If not, repeat test at a site at least 2 inches away from original site or on opposite arm

5 Record information

- Needle bevel can be seen just below skin surface
- Without aspirating, administer the tuberculin slowly
- A discrete pale elevation of the skin (wheal) should appear

Interpretation

The size of the reaction is only one element of interpreting a positive Tuberculin Skin Test (TST). Consideration should be given to the size of induration, positive predictive value and risk of development of active TB disease.

TST result | Situation in which reaction is considered positive
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0-4mm | In general this is considered negative, and no treatment is indicated
| Child under 5 years of age and high risk of TB infection
≥5 mm | HIV infection
| Contact with infectious TB case within the past 2 years
| Presence of fibronodular disease on chest x-ray (healed TB, and not previously treated)
| Organ transplantation (related to immune suppressant therapy)
| TNF alpha inhibitors
| Other immunosuppressive drugs, e.g. corticosteroids (equivalent of ≥15 mg/day of prednisone for 1 month or more; risk of TB disease increases with higher dose and longer duration)
| End-stage renal disease
≥10 mm | All others, including the following specific situations:
| TST conversion (within 2 years)
| Diabetes, malnutrition (<90% ideal body weight), cigarette smoking, daily alcohol consumption (>3 drinks/day)
| Silicosis
| Hematologic malignancies (leukemia, lymphoma) and certain carcinomas (e.g. head and neck)

Note: Reliable administration and reading of the tuberculin skin test involves standardization of procedures, training, supervision, and practice. Always follow your institution’s policies and procedures regarding infection control, evaluation, and referral. Also remember to provide culturally appropriate patient education before and after administration, reading, and interpretation of the skin test.

For more information on tuberculosis, visit: www.healthunit.org/professionals/
To report a positive Tuberculin skin test contact the Health Unit at:
613-345-5685 or 613-283-2740

Read and report a positive Tuberculin skin test  within the specified time frame, the test will have to be repeated.

1 Inspect site

- Visually inspect site under good light
  - Erythema (reddening of the skin) – do not measure
  - Induration (hard, dense, raised formation)

2 Palpate induration

- Use fingertips to find margins of induration

3 Mark induration

- Mark the border of induration by moving the tip of a pen at a 45° angle laterally toward the site of the injection

4 Measure induration (not erythema)

- Place “0” ruler line inside left dot edge
- Read ruler line inside right dot edge (use lower measurement if between two gradations on mm scale)
- Record the result in millimetres (mm)