

# Tuberculin Skin Test (TST)

## FAQ

### Administration

For each patient, conduct a risk assessment using the *Tuberculosis Screening Assessment* form.

#### 1. Locate injection site

- > 10cm below the elbow joint
- > place forearm palm side up on a firm well-lit surface
- > select an area free from dermatitis, abrasions, visible veins or other lesions

#### 2. Prepare syringe

- > check the expiry date on vial and ensure vial contains tuberculin (5TU per 0.1ml)
- > use a single dose tuberculin syringe with a 27 gauge needle with a short bevel

#### 3. Inject Tuberculin



- > hold the skin of the forearm taut and insert the needle (bevel facing up) at an angle almost parallel to the skin surface
- > administer 0.1 ml (5TU) of tuberculin by slow intradermal injection to produce a discrete bleb

#### 4. Check skin test site

- > a pale bleb (wheal) should be 5-10 mm in diameter
- > cover site with cotton wool and tape loosely
- > instruct patient to remove after 30-60 mins and leave site uncovered

#### 5. Record Information

- > document the procedures as required by your institution

### Measurement

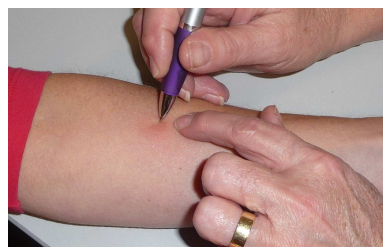
The skin test should be measured between **48 and 72 hours** after administration.

#### 1. Inspect site



- > visually inspect site under good light
- > erythema (reddening of the skin) – do NOT measure
- > induration (firm, raised area)

#### 2. Palpate and mark induration (not erythema)



- > with the skin held firmly find the borders of induration
- > make 2 markings on the borders of the induration using a fine pen



### 3. Record measurement



- > measure the transverse diameter of induration in millimetres (mm) with the Lesion Size Measure or a flexible plastic ruler
- > the presence of blistering should be recorded
- > erythema without induration is recorded as 0mm

### Interpretation

The probability that a TST response relates to TB infection will depend on such factors as the prevalence of TB in the population, the exposure risk of the individual, their immune status and the reaction size. Different cut-off points are recommended to guide prediction of TB infection based on specific categories of risk.

#### 0-4mm

- > usually regarded as negative or non-specific
- > interpret with care in the presence of high risk TB contact or immune suppression
- > induration (firm, raised area)

#### ≥5mm

- > close contacts (recent) of infectious TB cases
- > immune suppressed persons with TB risk factors e.g. HIV positive
- > those with CXR features consistent with previous TB

#### ≥10mm

- > recent arrivals from high prevalence countries
- > persons at risk of TB exposure e.g. health workers, Indigenous Australians, travellers to regions such as Asia and Africa for extended periods
- > those with immune suppressing medical conditions that increase the risk of TB infection progressing to disease

#### >15mm

- > considered abnormal in persons with no TB exposure risk factors

### Notes

- > Reactions <5mm may be false “negatives” due to anergy or a waned immune response. A “two step” procedure is sometimes recommended in these circumstances. A repeat TST is performed after one to three weeks if the first test is less than 5mm (no BCG) or less than 10mm (previous BCG).
- > Reactions in the range 5-15mm could be false “positives” due to BCG vaccination or infection with environmental mycobacteria.

Information courtesy of Central Adelaide Local Health Network (CALHN). Please refer any questions about this information to your treating medical officer and/or nursing staff. The information contained within this publication does not constitute medical advice, and is for general information only. Readers should always seek independent, professional advice where appropriate. CALHN will not accept any liability for any loss or damage arising from reliance upon any information in this publication.

### For more information

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