	Policies and Procedures Title: <b>TUBERCULIN SKIN TESTING (MANTOUX)</b> I.D. Number: <b>1178</b>
Authorization: [X] SHR Nursing Practice Committee	Source: Nursing Date Revised: March 2011 Date Effective: January 2002 Scope: <b>SHR Acute Care</b>

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### 1. PURPOSE

- 1.1 The tuberculin skin test is used to screen patients who may have been infected with *mycobacterium tuberculosis*.

### 2. POLICY

- 2.1 Registered Nurses/Registered Psychiatric Nurses/Graduate Nurses/can administer and read Tuberculin/Mantoux Skin Test upon a physician's order.
- 2.2 The term Mantoux is synonymous with Tuberculin Purified Protein Derivative (PPD) or Tubersol.
- 2.3 The test solution must not be administered in an area of broken, inflamed, scarred or infected skin or directly over a vein.
- 2.4 Infants less than 6 weeks of age should not have the skin test, as reactivity does not develop before that age.
- 2.5 Patients should not have the skin test 4-6 weeks following a viral infection or 6 weeks following the injection of a live vaccine (i.e. MMR, MR)

**Note:** *Live vaccines can be administered concurrently with Mantoux testing. Minor illness such as a cold is not a contraindication for testing.*

- 2.6 Tuberculin skin testing can be administered during pregnancy.
- 2.7 The test may be omitted if a patient reports a large reaction (10mm or greater) with previous testing.

### 3. PROCEDURE

### 3.1 Supplies

- Alcohol Swabs
- Tuberculin syringe with attached safety needle
- Vial of Tuberculin Purified Protein Derivative (PPD) solution

**Note:** Keep solutions refrigerated at all times.

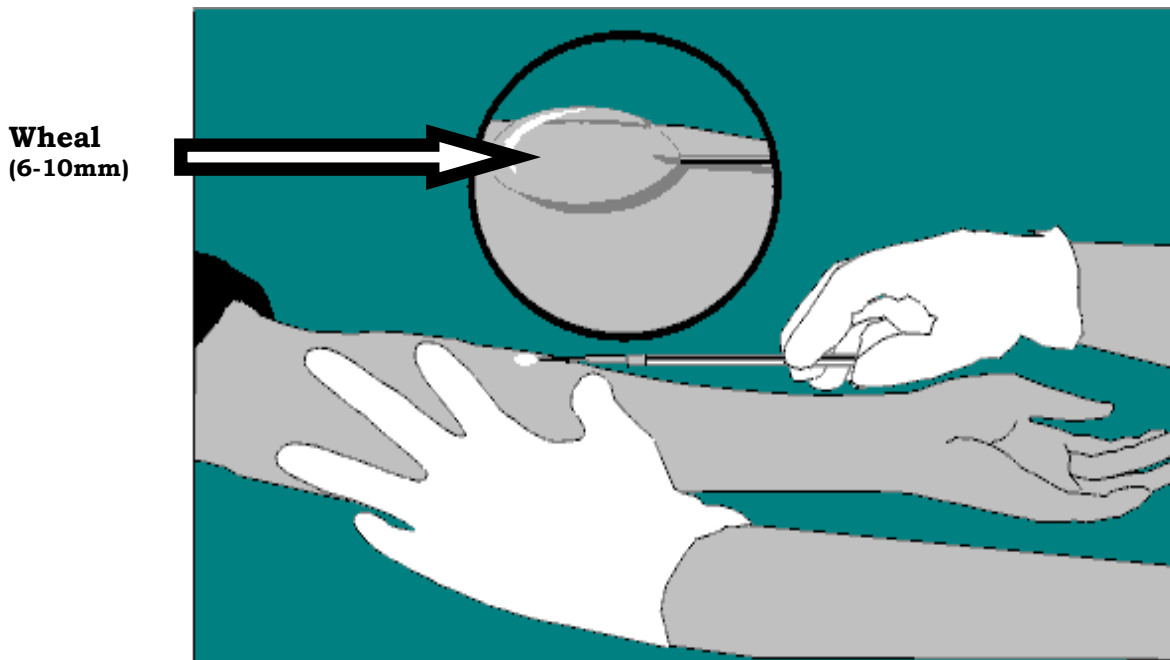
### 3.2 Administration of Mantoux Test

3.2.1 Check the label of the PPD vial for proper strength, expiry date and the date vial was opened (if applicable).

3.2.2 Clean top of vial with an alcohol swab and let dry. Draw 0.1 ml (5 tuberculin units) into tuberculin syringe.

3.2.3 Place the patient's forearm palm side up on a firm, well-lit surface and select an area of healthy skin approximately 3 finger widths below the ante-cubital space. This area should be free of muscle margins, heavy hair, vein, sores or scars. Clean site with alcohol

3.2.4 Keeping the skin taut, hold the syringe almost parallel to the skin (at approximately 15 degrees) and insert needle with the bevel up into the superficial layer of skin until the bevel is fully inserted and the **tip is visible under the skin**. Relax the skin and inject the PPD. **Resistance should be felt upon injection.**



**Note:** A tight 6-10 mm wheal should form at the site of insertion. If a wheal does not form, the injection was given too deep and must be repeated on the opposite arm. If a substantial portion of the dose leaks out of the injection site, the injection wasn't given deep enough and must be repeated on the opposite arm.

3.2.5 Do not press the site after injection to prevent displacement of the solution.

3.2.6 Inform the patient that mild itching, swelling, or irritation may occur and these are normal reactions that do not require any treatment. Inform the patient to avoid scratching the site, keep the site clean and avoid putting creams, lotions, or adhesive dressings on the site.

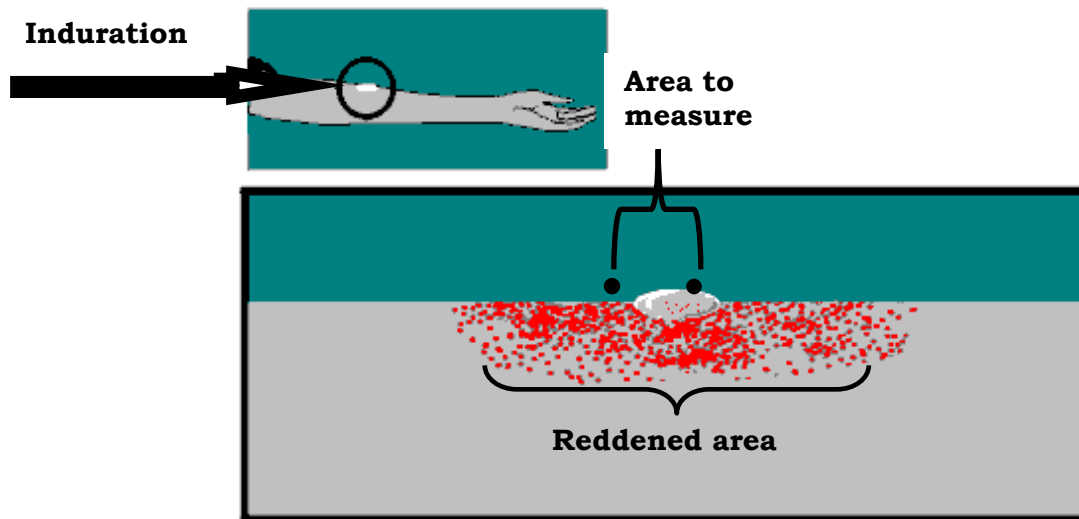
### 3.3 Reading the Results of the Mantoux Test

**Note:** The standard reading time of the test is 48-72 hours. However, induration of 10 mm or greater can be read at 6-24 hours and at 72-96 hours. Record in the same way.

3.3.1 Palpate and measure the transverse diameter of the induration by placing a pen mark on each side of the induration and measuring in mm the distance between using a flexible ruler. (The ruler will be supplied by pharmacy with the PPD)

**Note:** The induration (raised area) is what is measured, NOT the erythema (red area). There are four important steps to properly measure the induration.

- **Inspect:** Visually inspect the site on a firm, well-lit area.
- **Palpate:** Induration is not always visible or present and can only be determined by palpation with the fingertips. Using a light, gentle motion, sweep the fingertips over the surface of the forearm in all four directions to locate the margins or edges of induration.
- **Mark:** The induration must be marked with a pen at the widest edges of the raised area.
- **Measure:** Using a plastic flexible ruler, place the zero ruler line inside the left dot edge and read the ruler line inside the right dot edge.



### 3.4 Documentation and Reporting

3.4.1 Record administration of PPD on MAR and Tuberculin Skin Test Report Form #101098. Indicate the solution name and amount administered, site of administration, solution expiry and the date given (see Appendix A).

3.4.2 Record date and time to measure induration on Nursing Care Plan.

3.4.3 Record any adverse effects and patient response on progress notes/flow sheet and report to pharmacy.

- 3.4.4 When induration is measured, record date and result of test on the Tuberculin Skin Test Report. Record the results in millimeters. If there is no induration, record as 0 mm.
- 3.4.5 Report result and any adverse effects to physician.
- 3.4.6 Send or fax copy of the Tuberculin Skin Test Report to Tuberculosis Control Saskatchewan. Contact information is indicated on the form (see Appendix A).

#### **4. REFERENCES**

- Centers for Disease Control and Prevention. (1998). Diagnosis of TB Infection and Disease. <http://images.google.ca/imgres?imgurl=http://www2.cdc.gov/phtn/tbmodules/modules1-5/m3/f3-2b.gif&imgrefurl=http://www2.cdc.gov/phtn/tbmodules/modules1-5/m3/3-m-02a.htm&h=280&w=500&sz=8&hl=en&start=6&um=1&tbnid=HQSZOnCF8bsEAM:&tbnh=73>
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