

## **Guidelines for Administering the Mantoux Tuberculin Skin Test**

### **Supplies**

- Vial of tuberculin – 5 tuberculin units (TU) purified protein derivative (PPD) solution
- Single-dose disposable tuberculin syringe
- 2x2 gauze pads or cotton balls
- Alcohol swabs
- Puncture-resistant sharps disposal container
- Mantoux Tuberculin Skin Test Record Form
- Appointment cards
- Gloves

### **Preparation**

- Purified protein derivative (PPD) solution must be kept refrigerated at 36-46° F
- To avoid fluctuations in temperature, do not store on the refrigerator door
- Read the vial label to ensure that the correct solution and tuberculin unit (TU) strength have been selected
- Check the expiration date and the date that the vial was opened. The vial should be discarded if it has been open for more than 30 days or the expiration date has passed. Date and initial the label when a new vial is opened
- Select a well-lighted area for administering the test. Have all the equipment and supplies on hand
- Introduce yourself to the patient
- Verify that the correct patient receives the test
- Ask the patient if he/she has any allergies
- Review the patient's tuberculin skin test history. Inquire about documentation of previous tuberculin skin test results
- Provide patient education to answer questions, address fears, and ease anxieties. Discuss the purpose of the test, testing procedure, and the time frame for returning to have the test read. If the patient cannot return 48-72 hours after the test to have the induration measured and evaluated, do not administer the test. Instead, schedule another time that is more convenient for the patient

### **Administration of Skin Test** (Syringes must be filled immediately prior to administration)

- Wash your hands
- On a firm, well-lighted surface, expose the patient's arm and slightly flex at the elbow. The injection should be placed on the palm-side-up surface of the forearm, about 2 to 4 inches below the elbow. Avoid areas of skin with veins, sores, rashes, scars, or excess hair
- Put on gloves
- Clean the injection site with an alcohol swab, using circular motion beginning in the center and working your way outward. Allow the site to dry completely before injection
- Wipe the top of the vial with a new alcohol swab and allow it to dry thoroughly
- Fasten the needle tightly on the syringe by holding the cap and twisting it onto the tip of the syringe. Remove the needle cap and make sure that the needle bevel is facing up
- Hold vial between your thumb and fingers and insert the needle through the stopper. Inject air into the empty space, not the solution, in the vial
- Invert the vial. With the tip of the needle below the fluid level in the vial, draw out slightly more than 0.1 mL of solution

- Remove the needle from the vial. Hold the syringe in an upright position and gently tap the syringe to break up any air bubbles
- Expel all air from the syringe and excess solution from the needle, leaving exactly 0.1 mL of tuberculin solution in the syringe
- Stretch the skin taut over the injection site to provide a surface that is easy for the needle to penetrate. This can be accomplished by stretching the skin between the thumb and index finger or grasping the patient's forearm and gently pulling the skin from under the arm
- Hold the syringe between your thumb and index finger with the needle bevel facing up and the syringe parallel to the forearm
- With the needle against the patient's skin, insert the needle slowly at a 5- to 15-degree angle, just below the surface of the skin (you should be able to see the bevel of the needle just below the skin surface)
- Release the stretched skin and hold the syringe in place. Slowly inject the tuberculin solution, forming a 6 to 10 mm wheal (pale, raised area with distinct edges; has orange peel appearance and does not disappear immediately)
- If no wheal forms or if it is less than 6 mm in diameter, repeat the test approximately 2 inches from the original site or on the opposite arm
- Remove the needle without massaging or pressing the area and immediately discard the used syringe in the sharps container
- If minor bleeding occurs, use a 2x2 gauze pad or cotton ball to dab the injection site
- Do not cover the site with an adhesive bandage as it could cause irritation
- Wash your hands
- Record the following information on the record-keeping form: the date, time, location of injection site, name of manufacturer, lot number, and expiration date of PPD solution, name of person administering the skin test
- Inform the patient that mild itching, swelling, or irritation is normal and usually goes away within 1 week
- Explain how to care for the injection site: avoid scratching the site, keep the site clean and dry, and avoid creams, lotions, or adhesive bandages
- Inform the patient that it is important to return within 48 to 72 hours to have the test result read
- Give the patient a written appointment to return for the skin test reading