Tuberculin Skin Test Guideline

I. Purpose and scope

The tuberculin skin test (TST) is the only test used by the DOC to determine the existence of infection with tuberculosis (4-ACRS-4C-09). This test is also a part of the evaluation for TB disease. The accuracy of the test can be influenced by many factors including how the tuberculin is handled, experience of the person administering the test, and health of the person receiving the test. The purpose of this guideline is to ensure accurate and consistent administration of the TST (4-4354M).

II. Procedure

A. Administration

The TST is administered using 0.1 ml (5 tuberculin units) of Purified Protein Derivative (PPD) in a tuberculin syringe. The employee who prepared the syringe will administer the TST. Pre-drawn syringes are not an acceptable practice. The site is prepped for injection. The Mantoux method (intradermal injection) is the route of administration to the inner surface of the forearm 2 to 4 inches below the elbow. When the TST is placed there will be a wheal (bump) at the site. This wheal will disappear in a few minutes. The site should not be covered nor have any medications such as ointments applied until after the test is read. The information will be recorded in the electronic healthcare record (EHR).

B. Reading
The TST is read 48 to 72 hours after the test is administered. The reaction, if any, will be an area of induration (swelling) that can be felt around the site of the injection. Any redness (erythema) or other discoloration at the site should be disregarded. The edges of the indurated area are marked with a pen. The marked points are then measured. This measurement, a number, is the result and is documented as millimeters of induration, such as 10mm, in EHR. For a TST with no induration the result is documented as 0mm. A TST is not read as positive or negative; the reading is a number.

C. Interpreting

The Centers for Disease Control and Prevention has developed specific criteria to determine if a TST reading indicates an individual is infected with tuberculosis.

1. Interpreting the TST
   a. A TST reading from 0mm to 4mm is interpreted as negative.
   b. A TST reading greater than or equal to 5mm and less than 10mm is positive if any of the following are true,
      (1) HIV-positive persons;
      (2) Recent contacts of TB case;
      (3) Persons with fibrotic changes on chest radiograph consistent with old healed TB;
      (4) Patients with organ transplants and other immunosuppressed patients.
   c. A TST reading ≥10mm is positive for everyone working or residing in the DOC.
   d. For new employees or employees participating in annual testing who have a TST reading greater than or equal to 5mm and less than 10mm will be referred to their private physician or local health department, at their own expense, to have that reading interpreted (4-4386). The DOC employee reading the TST will complete the top portion of the “TST Interpretation Form”, MSRM 140301.03.1 then will give the form to the employee to present to their private physician or local health department for interpretation. When the form is complete the employee will return it to their facility medical office.

D. Two-Step Testing (Boosting)
1. Two-step testing is required for all new receptions and new hires that have no documentation of a prior “positive” TST, or have documentation of a negative TST that is more than 12 months old. Two-step (booster) testing will be performed when the initial TST is interpreted as “negative” for that individual. The second TST will be performed 1 to 3 weeks after the first test.

2. Two-step testing is not performed for annual screening or contact investigations.

III. Follow-up

Offenders with a new positive TST will complete a “Tuberculosis Questionnaire” in EHR and will have a minimum of a chest x-ray submitted to the Oklahoma State Department of Health for evaluation. Offenders who are having signs and/or symptoms of TB should be considered for isolation until TB can be ruled out.

IV. Reporting

All new positive TST results and interpretations will be reported to the Nurse Manager (Infection Control) in Medical Services using the “Tuberculosis Summary Record Opening Interchange” thru communications in EHR.

V. Action

The Chief Medical Officer (CMO) will be responsible for compliance with this procedure.

The CMO in Medical Services will be responsible for the annual review and revisions.

Any exceptions to this procedure will require prior written approval from the CMO.

This procedure will be effective as indicated.


Distribution: Medical Services Resource Manual

VI. References


OP-140301 entitled, “Tuberculosis Control Program”
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