SUBJECT: **INTRADERMAL INJECTIONS FOR SKIN TESTING**

Policy No.: C103
Effective Date: 08/2001

Purpose of Procedure: To define the process of performing and documenting intradermal skin testing.

Physician's Order Required: Yes

Performed By: RN, LVN, CMA and Affiliating Nursing Students under the supervision of an RN

Equipment: Alcohol swab, Appropriate Antigen(s), Gloves, Sharps Container, Skin markers, 1ml syringe with 26-27 gauge needle, ¼ to ½ inch long

Procedural Steps:

I. TB Skin Test Preparation
- A. Determine if the patient has ever had a positive TB test.
  1. If the patient has ever had a positive TB skin test, they will always test positive and may need a chest x-ray to evaluate if they have TB.
  2. If this is the case, determine the date of the last chest x-ray and inform provider.
- B. Contraindications of tuberculin skin testing include:
  1. History of active TB or definitive history of treatment for TB
  2. Previous positive tuberculin test
  3. Known allergy to the purified protein derivative or its components
  4. Extensive burns or eczema
  5. Determine if the patient has had Bacillus Calmette-Guerrin (BCG) vaccine, recent viral disease, is on steroids or is immunosuppressed because of disease or drugs or have received a live vaccine in the past month.

KEY POINT: These may cause false readings, therefore inform provider before proceeding

II. Preparation for all Other Skin Tests
- A. Determine if the patient has had recent viral disease, is on steroids, or is immunosuppressed because of disease or drugs.
  KEY POINT: These may cause false readings, therefore, inform provider before proceeding.

III. Skin Test Injection
- A. Check provider's order and verify strength and any control testing.
  KEY POINT: If other than PPD 5 Tuberculin Units is ordered for TB testing, check with pharmacy for procurement information.
- B. Explain the procedure to the patient.
- C. Perform hand hygiene.
- D. Check and verify PPD vial expiration date.
  KEY POINT: If a new vial is opened, place date, time of expiration and initials on vial.
  KEY POINT: If the vial is already opened, verify expiration based on the 28-Day expiration date protocol for multi-dose medications. If the vial has been opened and does not have an expiration date written, discard the solution.

E. Draw up amount of solution ordered by the provider
KEYPOINT: Cleanse the rubber stopper on multi-dose vials prior to drawing up solution.

F. Don gloves.

G. Select one of the patient's forearms as an injection site.

KEY POINT: Select injection site 2" to 4" below the elbow joint on the forearm. Stay away from lesions, heavy hair, scars and veins, which might affect test interpretation.

H. Cleanse the skin with alcohol and allow it to dry.

I. Stretch the skin taut.

J. Holding the needle almost parallel to the skin, 5 to 15 degrees, insert the needle bevel up about 1/8 inch under the epidermis.

K. Using slow, steady pressure, inject the solution into the dermis to form a wheal verifying that the solution has entered the dermis.
KEY POINT: If the wheal is less than 6mm or no wheal present after injection, withdraw the needle and repeat procedure using another test dose at least 2 inches away from the first injection site Do not penetrate subcutaneous tissue, aspirate, or massage after injection.

L. Withdraw the needle at the same angle at which you inserted it.

M. Dispose of syringe in sharp's container and all other supplies used as appropriate.

N. If multiple tests are being administered in the same arm, be sure the injections sites are at least 2 inches apart.
KEY POINT: Circle injection site and label agent used with skin markers

O. Educate patient not to rub, scratch or massage injection site after intradermal administration.

IV. Interpretation

A. Following the Intradermal Skin Test, record time frames for the specific antigen, assess the injection site and document findings on the medical record.

PPD Test Interpretation:

1. An induration of less than 5 mm is considered negative. No follow-up or additional reporting necessary.
2. An induration of 5 mm or more is considered positive in persons who are immunosuppressed, HIV infected, organ transplant, recent contact with person with TB disease or fibrotic changes on chest radiograph consistent with old TB.
3. An induration of 10 mm or more is considered positive for persons who are recent immigrant (<5 years) from high-prevalence country, injection drug users, residents and employees of high-risk congregate settings, mycobacteriology personnel and children under 4 or children and adolescents exposed to adults in high risk categories.
4. An induration of 15 mm or more is considered positive for persons with no known risk factors for TB.

KEYPOINT: Notify the provider and/or infectious disease department for any positive test for further evaluation and follow up.

B. If skin test is not read within the designated period of time, notify the provider and retest if ordered with the appropriate antigen, following the procedure in Step III.

KEY POINT: Skin test reading and follow up should be read between 48 to 72 hours after administration depending on what type skin test was given.

V. Documentation

A. The administration of PPD will be documented via the Medication Administration Wizard (MAW) for inpatients and on the *task list* for outpatients. The nurse will document all the information as prompted by the system including the manufacturer information, lot number, and expiration date.

B. A task will be prompted 48 hours after administration at which time the nurse can document the results of the test.

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References:

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