Toledo-Lucas County Health Department Policy

Tuberculosis Testing Policy

Original Effective Date:	Review / Revision Date:	Board of Health Resolution:
August 25, 2016	June 22, 2017	2017.06.082

Maintenance Steward: Supervisor of Clinics **History:** ☒ New ☐ Revised ☐ Archived

Organizational Scope:

☐ Full Agency ☐ Administration ☐ Community Services ☐ Environmental Health ☒ Health Services

Frequency of Review:

☒ Annually ☐ Biennially ☐ 5 Years ☐ As Needed ☐ Other:

Location:

G-Drive: G: → Users → Common → Policies & Procedures

Website: www.lucascountyhealth.com/employee-login/

Hardcopy: Clinic Policies & Procedures Manual

Archived Version(s):

Requisite Signatures

☒	Board of Health President	Date 6.22.2017
☒	FQHC Board of Directors President	Date 6/22/17
☒	Health Commissioner	Date 06-26-17
☒	FQHC CEO	Date 6/22/17
☒	Director of Health Services	Date 6-27-17

Tuberculosis Testing Policy

I. Policy

This policy outlines the procedure for tuberculosis (TB) screening and testing. It provides the process for the placement and reading of the Mantoux Tuberculosis Skin Test (TST) and guidelines for use of the Interferon Gamma Release Assay (IGRA), the TB blood test.

II. Scope

This policy applies to all public health nurses working in the tuberculosis screening clinic at the Toledo-Lucas County Regional Health District.

III. Purpose

The purpose of this policy is to ensure consistent application of protocols for registration, consenting, placement, analysis, and reporting of all tuberculosis testing.

IV. Background

A. Tuberculosis control begins with screening and identifying individuals with latent TB infection, (LTBI). Screening will be done with the Mantoux Tuberculin Skin Test. TB testing will be performed with the IGRA blood test under the following circumstances:

1. All foreign born patients.
2. Patients who have received the Bacillus Calmette-Guérin (BCG) vaccine.
3. Patients referred to the health department from another facility for evaluation of latent TB infection due to a positive tuberculin skin test.
4. Confirmation of TB exposure due to indeterminate TST.

B. Mantoux Skin Test interpretation depends on two factors:

1. Measurement in millimeters of the induration.
2. Person's risk of being infected with TB and of progression to disease if infected.

C. The Centers for Disease Control and Prevention (CDC) list the following classifications of the tuberculin skin test reaction:

1. An induration of 5mm or more is considered positive in:
    a. HIV infected persons
    b. Recent* contact of a person with TB disease, (*3 months prior to a TB diagnosis or TB symptoms)

c. Persons with fibrotic changes on chest radiograph consistent with TB
d. Persons with organ transplants
e. Persons who are immunosuppressed for other reasons

2. An induration of 10mm or more is considered positive in:
   a. Recent immigrants (< 5 years from high prevalence countries)
   b. Injection drug users
   c. Residents and employees of high-risk congregate settings
   d. Mycobacteriology laboratory personnel
   e. Persons with clinical conditions that place them at high risk
   f. Children < 4 years of age
   g. Infants, children and adolescents exposed to adults in high-risk categories

3. An induration of 15mm or more is considered positive in any person, including persons with no risk factors for TB.

V. Procedures

A. Patient Intake

1. The patient registers at the front desk
2. Consent form is completed and signed.
3. The patient is sent to the cashier to submit payment, if indicated.
4. The consent form and TB screening questions are reviewed by the nurse with the patient.
5. The Mantoux Tuberculin Skin Test is administered.
6. Patient is instructed to return in 48-72 hours for the reading of the TST.

B. Placement of the Mantoux Tuberculin Skin Test

1. Wash hands using the appropriate hand washing technique.
2. Draw up 0.1ml of Purified Protein Derivative (PPD) into the tuberculin syringe, (27 gauge needle).
3. Clean the injection site with an alcohol swab by circling from the center of the site outward. The injection should be placed on the palm-side-up surface of the forearm, about 2 to 4 inches below the elbow. ***Always place the first TST in the left arm***.
4. Stretch taut the selected area of skin between the thumb and forefinger. With the needle bevel facing up, insert the needle slowly at a 5- to 15-degree angle.
5. Release the stretched skin and slowly inject the PPD solution.

   a. **A tense, pale wheal that is 6 to 10mm in diameter should appear over the needle bevel. If the wheal is less than 6mm in diameter, the test should be administered again. If the tuberculin test must be repeated, use another site at least 2 inches, or 50 mm, from the original site. Or use the opposite arm.

6. Remove the needle, engage the safety-needle mechanism and discard the used syringe in the designated puncture-resistant container.
7. Inform the patient to return in 48-72 hours for the TST reading.
8. Wash hands and document the information in the patient's medical record.

C. Reading of the Mantoux Tuberculin Skin Test

1. The skin test should be read between 48 and 72 hours after the TST was administered. TSTs not read within 72 hours will need to be repeated.
2. Inspect the arm in good light and on a firm surface. Turn the arm palm up with the elbow slightly flexed.
3. The basis of reading the skin test is the presence or absence of induration, which is a hard, dense, raised formation. This is the area that is measured.
4. Erythema, a reddening of the skin that can also have swelling, should not be measured.
5. The induration is not always visible, rely on palpation with your fingertips to discover if there is induration at the site.
6. With your fingers together, touch the area lightly with the pads of your fingertips. Using a light, gentle motion, sweep the fingertips over the surface of the forearm in a 2-inch diameter in all four directions to locate the margins or edges of induration.
7. The diameter of the induration is measured across the forearm, from the thumb side of the arm to the little finger side of the arm or vice versa.
8. To mark the edges of the induration, hold your palm over the injection site with your fingertips at the outer edge of the patient's forearm. Without lifting, move the fingertips from the outer edge of the forearm towards the induration. Rest one fingertip firmly against the induration margin border on one side before marking the margin. The fingertip should remain in contact with the skin at all times. Mark lightly with a fine dot at the widest edge of the induration, using the fingertip as a guide.
9. Repeat the procedure on the other side of the patient's forearm and place a second mark on the margin of induration.
10. To measure the diameter of the induration, use the millimeter ruler. Place the zero ruler line inside the left dot edge and read the ruler line inside the right dot edge. If the measurement falls between two divisions on the millimeter scale, record the lower mark.
11. After the test is measured, write the millimeters of induration on the patient's consent form. Do not record the interpretation of the results as "negative" or "positive" without documenting the number of millimeters. Also document the date of the reading and the signature of the nurse reading the TST.
12. Document the result in the patient's electronic medical record and print a copy of the result for the patient.

D. Positive tuberculosis screening result

1. Patients with a positive TST or IGRA blood test will:
    a. Receive an order for a posterior view chest x-ray.
    b. Received a referral to the TB nurse for a medical intake interview.

c. Receive a history and physical exam by a health department health care professional (i.e., physician, nurse practitioner, or physician assistant).
d. Receive treatment for latent TB infection through the Lucas County Regional Health District when appropriate.

VI. Maintenance

A. Review

1. The *Tuberculosis Testing Policy* is to be reviewed annually to ensure compliance with both agency and CDC standards.

B. Revision

1. All changes made to this policy are to be noted on the **Record of Change**. Substantial changes will require renewed signatures from all applicable parties. This includes changes to the intent, scope, procedures, or policy statement.

2. Changes in style, format, grammar or minor error correction will not require renewed signatures but must be indicated on the Record of Change.

Record of Change

(Required for all policies)

Date of Change	Changes Made By	Changes Made/Notes	Approved By