|  |  |
| --- | --- |
| **Infection Prevention and Control Policy and Procedure** | **Subject: Screening for and Preventing the Spread of Tuberculosis** |
| **Approved by:**  |  |
| **Effective:** **Reviewed:**  | **Revised:**  |

**BACKGROUND**

Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis*. It affects mainly the lungs, but can also affect other parts of the body such as the throat, kidney, and spine. TB in the lungs and throat can be infectious; usually non-infectious in the kidney or spine. Tuberculosis is spread from one person to another through tiny respiratory droplets when a person coughs, sneezes, sings, or speaks. Requires airborne precautions. There are two types of TB: active and latent (LTBI).

**POLICY**

It is the policy of this facility to follow guidance from the Centers for Disease Control and Prevention (CDC) and the New York State Department of Health (NYSDOH) to screen both staff and residents for Tuberculosis infection for early identification and prevention of the spread of this highly communicable disease. The facility will notify the local health department and the NYSDOH via the NORA report if Tuberculosis confirmed in a staff or resident.

**PROCEDURE**

**Staff:**

1. TB risk and symptoms assessment (attached) and testing will be done for all new employees within 3 months prior to the individual’s first day of work, usually upon hire.
* Testing can be done via the intradermal Tuberculin Skin Test (TST) or the interferon-gamma release assay (IGRA) blood test (preferred method).
* TST requires 2 steps, the 2nd to be administered 1-3 weeks after the initial test.
* Mantoux method with 0.1mL of purified protein derivative (PPD)
* Results will be read 48-72 hours after administration.
* A second TST is not needed if the employee has had a documented, negative TST during the previous 12 months.
1. TSTs will be done by trained licensed personnel.
2. Staff responsible for administering the TST will document the manufacturer, lot number, date placed, and date read, and will sign and date documentation log.
* A copy will be kept in the employee’s health record.
* Employees will not be allowed to read or interpret their own TST results.
1. Annual TB testing is not required, unless there are any symptoms suggestive of active TB.
2. TB risk and symptoms assessment will be conducted annually in conjunction with annual physical health assessment, overseen by Employee Health Personnel/Designee.
3. If personnel check YES to any of the “Risk Factors” questions, LTBI testing (TST or IGRA) will be conducted.
4. If symptoms assessment is suggestive of Tuberculosis, a chest x-ray will be required to rule out active TB.
5. In instances where there is known exposure to a person with potentially infectious TB, without the use of adequate PPE (fit-tested, NIOSH-approved N95 mask), health care personnel will have symptom evaluation and testing, if indicated.
* Those without documented LTBI or TB disease should have an IGRA or TST performed
* Those with an initial negative test should have a second test 8-10 weeks after the same exposure to complete the evaluation.
* Persons with prior infection or disease do not need testing after exposure but can be further evaluated if TB disease concern exists.

**Residents**

1. Upon admission, residents will be screened for history of and signs of active Tuberculosis disease.
2. Upon admission, residents will be screened for a history of positive TST.
3. Unless contraindicated, new admissions will be given an initial TST within 3 days of admission and a 2nd dose within 1-3 weeks after the initial test by a licensed nurse.
* Mantoux method with 0.1mL of purified protein derivative (PPD)
* Results of TST will be read by a licensed nurse 48-72 hours after administration of TST.
* A second TST is not needed if the resident has had a documented, negative TST during the previous 12 months.
1. Licensed nurse will document the manufacturer, lot number, date placed, and date read in the resident’s chart – MAR/Immunization Record/Immunization CCP.
2. Residents with a positive TST will have a chest x-ray to R/O active TB and follow-up assessment by the primary care physician (PMD) or Nurse Practitioner (NP).
3. If a resident refuses the TST, PMD/NP may order an IGRA blood test or chest x-ray (CXR) to rule out active TB
4. Residents that are suspected or confirmed of having Tuberculosis should be placed in a private room with a mask on and the door closed (if facility has no airborne isolation capability).
* Airborne precautions should be taken – staff to wear a fit-tested, NIOSH-approved N95 mask
* Arrange for the transfer of the resident to acute care setting/hospital
* Notify transport personnel and receiving facility that TB is suspected/confirmed
1. If a resident is re-admitted from the community, despite length of stay in community, a 2-step TST or an IGRA blood test, along with a symptoms check is required.
* If the resident has a documented, negative TST during the previous 12 months, then only 1-step TST is required.

**Administering the Mantoux TST**

1. Cleanse area of forearm with alcohol swab; allow to air dry
2. Inject 0.1mL of PPD into the inner surface of the forearm
* Use a Tuberculin Syringe, bevel facing upward
1. May mark location of injection to allow for identification for reading result

\*\*When placed correctly, the injection should produce a pale elevation in the skin (a wheal) 6-10mm in diameter.

**Interpreting the Tuberculin Skin Test**

1. Skin test interpretation depends on 2 factors: measurement in millimeters of the induration and a person’s risk of TB infection or the risk of progression to TB disease if infected.
2. **The reaction should be measured in millimeters of the induration (firm swelling), not the erythema (redness).**
3. The diameter of the indurated area should be measured across the forearm (perpendicular to the long axis).

**Classification of the Tuberculin Skin Test Reaction**

|  |  |  |
| --- | --- | --- |
| **Induration ≥5: Positive** | **Induration ≥10: Positive** | **Induration ≥15: Positive** |
| - People living with HIV-A recent contact of a person with infectious TB disease– People with chest x-ray findings suggestive of previous TB disease-People with organ transplants-Other immunosuppressed people (e.g., patients on prolonged therapy with corticosteroids equivalent to/greater than 15 mg per day of prednisone or those taking TNF-a antagonists) | - People born in countries where TB disease is common, including Mexico, the Philippines, Vietnam, India, China, Haiti, and Guatemala, or other countries with high rates of TB-People who abuse drugs-Mycobacteriology laboratory workers-People who live or work in high-risk congregate settings (e.g., nursing homes, homeless shelters, or correctional facilities)-People with certain medical conditions that place them at high risk for TB (e.g., silicosis, diabetes mellitus, severe kidney disease, certain types of cancer, and certain intestinal conditions)-People with a low body weight (<90% of ideal body weight)-Children younger than 5 years of age-Infants, children, and adolescents exposed to adults in high-risk categories | - People with no known risk factors for TB |

**Health Care Personnel (HCP): Annual Individual TB Risk Assessment**

Employee Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Title\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Print Neatly)

(Please read and complete each section.)

|  |  |  |
| --- | --- | --- |
| **Risk Factors**(LBTI recommended if any of the following risks is answered yes) | Yes | No |
| **Temporary or Permanent Resident of less than one month in a country with a high TB rate.** *(Any Country other than the United States, Canada, Australia, New Zealand, and those in Northern Europe or Western Europe.)* |  |  |
| **Current or Planned Immunosuppression***Including human immunodeficiency virus (HIV) infection, organ transplant recipient, treatment with a TNF-alpha antagonist (e.g., infliximab, etanerept, or other) chronic steroids (the equivalent of prednisone more than 15 mg/day for more than one month or other immunosuppressive medication.* |  |  |
| **Close contact with someone who has had infectious TB disease since the last TB Test** |  |  |
|  |
| **Symptoms Suggestive of TB** | Yes | No |
| **A bad cough lasting ≥ 3 weeks** |  |  |
| **Hemoptysis (coughing up blood)** |  |  |
| **Fever, chills or nights sweats for no known reason** |  |  |
| **Persistent shortness of breath** |  |  |
| **Chest pain** |  |  |
| **Unexplained weakness or fatigue** |  |  |
| **Unexplained weight loss** |  |  |

**I have read and answered all sections as indicated.**

Staff Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_

**Reviewers Assessment**

 **TB Testing is indicated at this time Yes\_\_\_\_\_ No\_\_\_\_\_\_**

 **LTBI Testing is indicated at this time Yes\_\_\_\_\_ No\_\_\_\_\_\_**

Reviewers Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Title\_\_\_\_\_\_\_\_\_\_\_

 Print Clearly

Reviewers Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_

Questions about testing can be directed to the NYS DOH Bureau of Tuberculosis Control tbcontrol@health.ny.gov.

**REFERENCES**

CDC (3/20/2016). Basic TB Facts. <https://www.cdc.gov/tb/topic/basics/default.htm>

CDC (11/2/2020). Fact Sheet: Tuberculin Skin Testing. <https://www.cdc.gov/tb/publications/factsheets/testing/skintesting.htm>

CDC (3/11/2016). How TB Spreads. <https://www.cdc.gov/tb/topic/basics/howtbspreads.htm>

CDC (1/7/2016). Transmission-Based Precautions. <https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>

NYS DAL (12/16/2020). Annual TB Testing.

NYS DAL (2/16/2006). Guidelines for Tuberculosis Control in Long-Term Care Facilities. <https://www.health.ny.gov/professionals/nursing_home_administrator/docs/dal_06-03_guidelines_for_tuberculosis_control.pdf>