Tuberculosis – Exposure Control Plan

POLICY:

Midwestern State University is committed to providing a safe and healthy environment for the members of the university community by protecting the students from preventable diseases such as tuberculosis.

PROCEDURE: Tuberculosis exposure screening may be done through the Vinson Health Center or at State or local health department or private provider with the results brought to the Vinson Health Center.

TB SCREENING SHOULD BE CONSIDERED IF:

- Persons who have been close contacts of a person with infectious TB
- Persons with signs or symptoms of active TB
- Persons with HIV infection
- Persons who inject drugs
- Persons who have resided in, have been employed by, or volunteered in the following high-risk congregate settings: prisons and jails, nursing homes and other long-term facilities for the elderly, hospitals and other health care facilities, residential facilities for patients with acquired immunodeficiency syndrome (AIDS), and homeless shelters.
- Persons with the following clinical conditions that place them at high risk: silicosis, diabetes mellitus, chronic renal failure, some hematologic disorders (e.g. leukemia’s and lymphomas), other specific malignancies (e.g. carcinoma of the head or neck and lung), low body weight (10% or more below the ideal), gastrectomy and jejunoileal bypass, prolonged corticosteroid therapy (e.g. prednisone 15 mg/d for 1 month), other immunosuppressive therapy, pulmonary fibrotic lesions seen on chest radiographs (presumed to be from prior, untreated TB)

TB SCREENING IS REQUIRED ANNUALLY FOR:

- Vinson Health Center staff
- Students in health care related studies

Detailed information about screening and treatment for tuberculosis can be found at the following website:

http://www.cdc.gov/tb/
SCREENING

Individual with **no record of tuberculosis skin testing within the past 10 years**

**Purpose:**
- Screening for remote tuberculosis infection
- Rough differentiation between remote and recent tuberculosis infection
- Meet CDC recommendations for new health care personnel

**Two-step tuberculin skin testing: See following algorithm**

- **IGRA or other blood assay for** *M. tuberculosis* (BAMT) testing may be used in lieu of a Mantoux test, with the same response to negative and positive results

- **Maximum time frame between 1st and 2nd TST is 6 months**
Individual with **KNOWN HISTORY** of Tuberculosis:

- If the history is not documented, screening will include, but is not limited to:
  
  - Chest x-ray
  
  - Intermediate Tuberculin skin test (5 TU) for questionable diagnosis
  
  - IGRA or other blood assay for *M. tuberculosis* (BAMT) testing may be used in lieu of a Mantoux test, with the same response to negative and positive results

- Response to positive screening:
  
  - If chest films suggest recent activity, the individual will be referred to the State or local Health Department or the individual can choose to follow up with a private physician at their own expense and provide documentation to Vinson Health Center. Active tuberculosis requires treatment plus three (3) negative sputum smears for TB before returning to work. Clearance must be documented by physician.
  
  - If chest x-ray shows no activity, no further testing will be required but consistent with state law regarding workers in institutional settings, the individual will be required to follow up with a private physician at their own expense or the Public Health Department and provide documentation to Vinson Health Center.
  
  - Subsequently, a yearly tuberculosis questionnaire will be required, following education concerning signs and symptoms of active tuberculosis infection.

- If screening is negative in the context of an undocumented verbal history of tuberculosis, the patient will complete the two-step tuberculin skin testing documented previously.

- If the individual had documented ACTIVE TB in the past:
  
  - Acceptable documentation providing proof of adequate treatment with anti-tuberculin medication will be required.
  
  - A yearly TB questionnaire will be required.
  
  - Chest x-ray every three years.
Individual with **NO KNOWN HISTORY** of tuberculosis and acceptable documentation of previous negative Mantoux (PPD) Tuberculin skin testing:

- Testing method will include:
  - Intermediate tuberculin skin test (5 TU).
  - The skin test should be read in 48-72 hours from administration.
  - If skin test develops no induration or an induration area is less than 10 mm, no additional skin testing is required.
  - If the skin test is positive (>5 mm for HCW or HSS or those listed as high risk, ≥10 mm induration in lay population) the patient will be a considered a recent converter (see Recent Converter section).

- IGRA or other blood assay for *M. tuberculosis* (BAMT) testing may be used in lieu of a Mantoux test, with the same response to negative and positive results
  - Chest x-ray will be required for individuals with positive IGRA or other blood assay for *M. tuberculosis* (BAMT) testing.
Positive Tuberculosis skin test (TST or PPD) and subsequent IGRA or other blood assay for *M. tuberculosis* (BAMT) testing

If the initial TST is positive, and the patient requires further investigation to enhance the likelihood of compliance, a subsequent IGRA or other blood assay for *M. tuberculosis* (BAMT) test may be performed.

- If there is a positive TST and a positive IGRA or other blood assay for *M. tuberculosis* (BAMT), the patient will be treated as a recent converter.

- If the TST is positive and the IGRA or other blood assay for *M. tuberculosis* (BAMT) is negative
  - The positive TST should be carefully documented with date and measurement of the induration
  - The individual should be rescreened annually with IGRA or other blood assay for *M. tuberculosis* (BAMT)

- The first repeat screen should be with IGRA or other blood assay for *M. tuberculosis* (BAMT)
  - Positive IGRA is a recent converter
  - Negative IGRA should be rescreened annually with IGRA or other blood assay for *M. tuberculosis* (BAMT)

- Annual screening in individuals with a positive IGRA or other blood assay for *M. tuberculosis* (BAMT) tests
  - Annual questionnaire
  - CXR every 3\textsuperscript{rd} year
Individual with documents reflecting a positive IGRA or other blood assay for *M. tuberculosis* (BAMT) testing in the past

- For initial screening, if the individual has had a positive IGRA or other blood assay for *M. tuberculosis* (BAMT) testing in the past and has acceptable documentation of adequate treatment with anti-tuberculin medication:
  - A chest x-ray will be required.
    - If the chest x-ray shows no activity, satisfactory disease surveillance goals are met.
    - If the chest x-ray suggests active tuberculosis, active tuberculosis requires treatment plus three (3), negative sputum smears for TB before returning to work. Clearance must be documented by physician.

- For initial screening, if the individual has had a positive IGRA or other blood assay for *M. tuberculosis* (BAMT) testing in the past and has no acceptable documentation of adequate treatment with anti-tuberculin medication:
  - A chest x-ray will be required (must be within three months).
  - The individual will be referred to his/her private physician or the State or local Health Department.
  - Documentation of a treatment plan for latent tuberculosis infection/LTBI consistent with the regimen recommended by the county tuberculosis control center, or of a contraindication to such a plan, will be provided to Vinson Health Center prior to clearance for clinical contact.
    - Monthly documentation of compliance with LTBI will be provided in a timely fashion (within 1 week of monthly evaluation)
    - Documentation of completion treatment for LTBI will be provided at the end of treatment (within 1 week of completion)
    - Failure to provide either of the above will result in immediate loss of compliance required for clinical activities.

- Subsequent screening after treatment for LTBI:
  - Annual tuberculosis questionnaire
  - A chest x-ray if symptoms are present and routinely every three years
An individual who has received BCG vaccination and has no history of tuberculosis

- Individuals with a history of vaccination with the Bacille Calmette Guèrin (BCG) vaccine shall be screened with an IGRA or other blood assay for *M. tuberculosis* (BAMT).

- BAMT testing is preferable, but skin testing is viable. If BAMT testing is unavailable a Mantoux (PPD) skin test using 5 TU strength PPD will be done.
  
  o If the induration is greater than 10 mm, treat the individual as if recently infected (see Recent Converter section).

  o If the induration is less than 10 mm, the patient has a negative skin test; individuals having a negative PPD skin test will be retested on an annual basis.
Recent Converters

- TB Skin Converters (PPD) positive personnel or new positive result BAMT personnel:
  - Skin tests are to be read by qualified personnel (e.g., Vinson Health Center Nurse) at 48 hours or 72 hours interval.
  - The patient will be referred to the Public Health Department.
  - Chest x-ray will be ordered by the Vinson Health Center physician, if applicable.
  - The Public Health Department will determine if the conversion represents active or latent tuberculosis infection.
    - Active tuberculosis requires treatment plus three (3) negative sputum smears for TB before returning to work. Clearance must be documented by physician.
    - Latent tuberculosis infection will require:
      - Documentation of a treatment plan for latent tuberculosis infection/LTBI consistent with the regimen recommended by the county tuberculosis control center, or of a contraindication to such a plan, will be provided to Vinson Health Center prior to clearance for clinical contact.
      - Monthly documentation of compliance with LTBI will be provided
      - Documentation of completion treatment for LTBI will be provided
      - Failure to provide either of the above will result in immediate loss of compliance required for clinical activities.
  - Subsequent screening:
    - Annual tuberculosis questionnaire
    - A chest x-ray if symptoms are present and routinely every three years
REFUSAL OF TREATMENT:

- Document individual’s refusal of treatment in the Health Record. The individual must sign the "Refusal of Treatment" for the refusal to be valid. (See attached form)

- Advise the individual of signs and symptoms of advancing tuberculosis infection, the risk and the alternatives, both positive and negative, for refusal of treatment upon diagnosis.

- Advise the individual to see his/her private physician. Follow-up on the progress of treatment:
  - Active Tuberculosis – class participation at MSU to be terminated until the tuberculosis infection is inactive and the employee is no longer infectious. This is to be determined by the Vinson Health Center physician.
  - Latent tuberculosis infection – the individual will be unable to complete clinical aspects of health care related education.
Refusal of Treatment Form

Documentation to Decline Treatment of Latent TB Infection

I have been identified as being infected with tuberculosis in a form called latent tuberculosis infection (LTBI). I have had explained to me that I have a lifetime risk of developing tuberculosis (TB) disease. I was offered a prescription to treat LTBI. Treatment with this medication will prevent the disease in most individuals who complete a recommended course of treatment. The medication and nursing case management will be provided at no cost to me from the local health department.

Without treatment for LTBI, the risk of developing tuberculosis (TB) in the first year following infection is approximately 5%. If the medication is not taken, I have a 1 in 20 chance of developing active TB disease within the first year. The lifetime risk of developing active TB disease is as high as 10%, or 1 in 10 people. For recently infected individuals and others at high risk for disease, that risk is greater than the risk associated with INH treatment.

I am pursuing an education in health care related fields at Midwestern State University. If I develop active TB disease, I am a risk to infect my family, faculty, students, co-workers, and the patients in my care. I have read the information on this form about treatment for LTBI. I understand the benefits and risks of taking treatment. I have had an opportunity to ask questions.

The health department has offered to provide me with the medication and the nursing case management to decrease my risk for developing tuberculosis disease. However, I have chosen not to take medication as recommended. If I should change my mind, I understand that the Health Department will be available to advise me on this matter.

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