State of Iowa Department of Corrections
Policy and Procedures

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Chapter 6: Health Services
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Responsibility: Dr. Jerome Greenfield
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Authority:

1. PURPOSE

To provide an effective prevention and control program that will identify early Tuberculosis Infection through initial entry and periodic follow-up screening.

2. POLICY

It is the policy of the Iowa Department of Corrections (IDOC) to protect persons living and working in a correctional setting against potential infection.

3. DEFINITIONS

A. Tuberculosis (TB): A bacterial infection that most commonly infects the lungs, and is caused by a bacteria called Mycobacterium tuberculosis.

B. Latent Tuberculosis Infection (LTBI): An infection with Mycobacterium tuberculosis in the absence of clinical disease.

C. Active Tuberculosis: An illness in which TB bacteria are multiplying and attacking a part of the body, usually the lungs.

D. Tuberculin Skin Test (TST): An intradermal skin test which contains a purified protein derivative (PPD), and is used to detect a tuberculosis infection.

E. See IDOC Policy **AD-GA-16** for additional Definitions.

4. PROCEDURE

A. Tuberculosis (TB) screening is performed upon Intake and annually for all IDOC patients.

1. A TB Screening Questionnaire **(HSF-903A)** is performed upon Intake and annually for all IDOC patients.

2. Tuberculin Skin Test) is performed upon Intake and annually for all IDOC patients except the following:

    a. A prior positive TST.

    b. A history of a previously treated TB.

3. Patients with a history of a) prior positive TST or b) previously treated TB infection (active or latent) should be screened upon Intake and annually using the following:

    a. A TB Screening Questionnaire **(HSF-903A)**

    b. An initial baseline chest x-ray*

    *Once a baseline chest x-ray is performed, additional chest x-rays should not be performed for screening purposes.

B. Tuberculin Skin Test (TST) Procedures

1. TST should be read within 48-72 hours after injection.

2. Measurements should be based on induration (the palpable swelling) and not based on the erythema (redness) surrounding the site of injection.

3. You may use a pen to draw lines at right angles to meet the edges of the induration. The diameter between opposing lines is measured in millimeters.

C. Interpreting TST Results

1. Interpretation based on millimeters (mm) of induration:

a. 10 mm is positive for all incarcerated individuals and correctional facility employees

b. 5 mm is positive in the following individuals:

1) Persons with HIV infection

2) Recent contact with an individual diagnosed with TB disease.

3) Fibrotic changes on chest x-ray consistent with TB disease.

4) Organ transplant recipient

5) Patients with immunocompromised conditions (e.g. receiving $\geq$ 15 mg/day of prednisone for $\geq$ 1 month)

6) Individual suspected of having TB

c. < 5 mm is negative

D. If TST is positive, additional evaluation to rule out an <u>active</u> TB infection is required and includes the following:

1. TB Screening Questionnaire **(HSF-903A)** immediately.

2. Chest x-ray (2 view) should be performed within 72 hours after interpretation of a positive result.

3. Patient should be evaluated by a medical provider as soon as possible to assess for signs and symptoms of active TB.

E. If there are identified concerns for an active TB infection (based on clinical evaluation, screening questionnaire, or chest x-ray):

1. Place patient in a negative pressure single-occupancy isolation room.

2. If a negative pressure room is not available, then patient will need to be transferred to a facility with a negative pressure room.

3. A medical provider should be contacted immediately to coordinate further evaluation and management.

4. Evaluation and management of suspected or confirmed active tuberculosis (TB) should be performed in partnership with Iowa DOC Medical Team and Iowa Department of Public Health (IDPH).

5. If active tuberculosis (TB) is confirmed, then the Iowa DOC Medical Team and IDPH should be contacted, and contact tracing should be initiated as soon as possible.

F. Treatment of Latent Tuberculosis Infection (LTBI)

1. Presence of active tuberculosis (TB) must be excluded before treatment of LTBI is initiated.

2. Baseline liver enzyme and/or monthly liver enzyme monitoring should be considered based on the patient's past medical history and risk factors.

3. Patients receiving LTBI treatment should be evaluated monthly for clinical signs or symptoms of hepatitis.

4. Pharmacological therapy options:

    a. Rifampin monotherapy daily for 4 months in adults without HIV.
    b. Isoniazid* plus rifampin daily for 3 months in adults with and without HIV if drug interactions allow.

    c. Isoniazid* monotherapy daily for 6 months (considered alternative regimen per CDC guidelines).

    *The addition of Vitamin B6 (pyridoxine) 25-50 mg/day should be given with isoniazid in patients at risk for neuropathy, pregnant, or breastfeeding.

G. Medication Refusal for Treatment of Latent Tuberculosis Infection (LTBI).

1. Patients with a diagnosis of a latent tuberculosis infection (LTBI) are not actively infectious to other individuals. However, without

treatment, 5 to 10% of these patients will develop active tuberculosis (TB) at some point in their lifetime. The goal of therapy is to prevent these patients from developing an active TB infection.

2. Patients who refuse recommended treatment for latent tuberculosis infection (LTBI) should be educated on the risks of developing an active TB infection if they are not treated.

3. Patients who continue to refuse therapy should be scheduled with a medical provider for further evaluation and education of the importance of LTBI treatment.

4. If a patient continues to refuse therapy following education by the medical provider, then the patient should sign a treatment refusal form indicating his/her understanding of the risks and benefits of the therapy. The medical provider's discussion of these risks and benefits should be documented within the patient's medical record.

5. Continued monitoring for patients refusing medical treatment of LTBI should include the following:

    a. For immunocompromised patients (e.g. HIV, Organ transplant, immunosuppressive medications).

        1) Chest x-ray every 6 months for 2 years.

        2) Medical provider encounter every six months indefinitely, to rule out signs and symptoms of active TB.

    b. For non-immunocompromised patients:

        1) Chest x-ray every 6 months for 2 years.

        2) Medical provider encounter every six months for 2 years, to rule out signs and symptoms of active TB.

H. Diagnosis of Active Tuberculosis Disease

The expedient diagnosis of active tuberculosis (TB) is critical for providing effective treatment and for preventing TB transmission in the correctional setting. The diagnosis of active TB requires the interpretation of available

testing, imaging, and clinical evaluation, and should be made in partnership with the Iowa Department of Public Health (IDPH).

1. The decision for appropriate isolation, treatment, and monitoring for suspected or confirmed active tuberculosis (TB) patients, should be made in consultation with Iowa DOC Medical Team and the Iowa Department of Public Health (IDPH).

2. If active tuberculosis (TB) is confirmed, then the Iowa DOC Medical Team and IDPH should be contacted, and contact tracing should be initiated as soon as possible.

I. Post-Exposure Tuberculosis (TB) Screening: Individuals with a known exposure to active TB should receive the following:

1. TB Screening Questionnaire **(HSF-903A)** and TST testing at time of exposure

2. Repeat Screening Questionnaire and TST testing 8-10 weeks after the end of exposure

J. Refusal of TST tuberculosis screening

1. Provide education regarding the importance of routine screening

2. If the individuals continue to refuse, then schedule an encounter with a medical provider for further education and evaluation

3. Patients who refuse TB screening to rule out an active TB infection, may require isolation from the general population until they can be appropriately monitored to rule out an active TB infection

K. Health Record Documentation

1. Nursing staff must enter a progress note whenever a TB skin test is read as positive. A possible source (contact) for the TB infection needs to be addressed in the nursing or physician's progress notes. The progress note Plan must include a referral to a medical practitioner, and the date of the medical practitioner appointment is to be included in the Plan

2. The nursing note should address any current symptoms which might warrant segregation for health reasons. If segregation is considered appropriate, nursing staff must immediately refer the patient to a medical practitioner (if on-site), or have a telephone conversation with the on-call medical practitioner. If medically indicated, a medical practitioner must write an order for segregation or provide a verbal order for segregation pending review/assessment. Patients found to be PPD positive must have a medical practitioner evaluation as soon as possible

3. The progress note by the medical practitioner must address the patient's clinical history, including any prior treatment for tuberculosis infection (positive PPD) or tuberculosis disease. Relevant records, including progress notes, are to be reviewed. The note must document the presence or absence of a productive cough, coughing up blood, weight loss, loss of appetite, lethargy/weakness, night sweats, chills, or fever. A medical practitioner must order segregation for health reasons if their progress note documentation indicates a need for this action. Progress note entries by the medical practitioner and/or nurse must document that appropriate education was provided

4. Patients requiring Latent TB pharmacological therapy require face-to-face clinical assessment by a healthcare professional (nursing or medical provider) at least every month. Medication side effects and physical findings of liver impairment need to be considered. The results of this face-to-face interaction must be documented in a medical practitioner-authored progress note. Monitoring liver function studies must reflect medical practitioner review. The practitioner must sign or initial and date his/her review of the laboratory report and write a relevant progress note

L. Personal Protective Equipment and Isolation

1. The facility Health and Safety Consultant shall ensure all respirator users receive proper instruction and fit for the proper use and maintenance of the appropriate respirator (N95) required for protection against active tuberculosis. Refer to IDOC Policy *Respirator Program*, **IO-SE-20**.

2. Upon diagnosis of suspected or confirmed TB, all persons having contact with the patient shall be required to don approved respirators and PPE within a timely manner.

3. Rooms used for isolation should include:

    a. Single occupancy

    b. Negative pressure rooms.

    c. Designated Negative Pressure rooms should be checked DAILY for appropriate maintenance while being used for TB isolation. Maintenance staff will ensure documentation on the appropriate log. In addition, the rooms will be checked and preventative maintenance will be completed as per manufacturer's recommendations

    d. Doors between the isolation room and other areas should remain closed except for entry. There should be a small gap of 1/8-3/4" at the bottom of the door to provide an airflow path

4. Staff who enters the room must wear a NIOSH approved mask. These are available from Health Services for use after appropriate fit testing has been accomplished

5. While in the room the patient need not wear a mask but should be counseled on mechanisms to contain secretions (e.g. using tissues to cover mouth when coughing)

6. Ambulation

    a. Patients on AFB isolation may leave their room only for MEDICALLY ESSENTIAL procedures

    b. Patients will wear a NIOSH approved mask when out of AFB isolation

    c. Staff will wear a NIOSH approved mask while in contact or accompanying the patient.

M. Transportation

In facilities where negative airflow rooms are not available provision for safe transport of the patient to a facility that can properly isolate the patient should be made. If transport by state vehicle is necessary, staff and patient must wear a NIOSH approved mask. If feasible the windows of the vehicle should be lowered to allow airflow.

N. Medications Upon Discharge

When a patient is going to be released from an IDOC institution, who is currently being treated for latent Tuberculosis Infection, the Iowa Department of Public Health (IDPH) is to be notified. The form to be used can be obtained from the IDPH website under the Tuberculosis Control section - Medication Order Form or in the EMR Order Form and faxed to IDPH. In addition, a 30-day supply of pharmacological therapy is to be sent with the patient upon release.

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