DEPARTMENT OF CORRECTIONS

Policy Number:	**500.520**
Title:	**Tuberculosis Prevention and Control for Offenders**
Effective Date:	**11/3/20**

PURPOSE: To provide procedures for the screening, assessment, prevention, and control of Mycobacterium tuberculosis (TB) in offenders.

APPLICABILITY: All adult and juvenile correctional facilities

DEFINITIONS:

Directly observed therapy (DOT) – therapy in which a nurse or other trained staff watches the offender swallow each dose of medication.

Induration – a raised palpable area at the Mantoux test injection site that is firmer than the surrounding skin. This does not include redness or swelling that is not palpable.

Isonicotinylhydrazide or Isoniazid (INH) toxicity – when an offender receiving isoniazid or isonicotinylhydrazide (INH) therapy experiences jaundice or liver enzyme elevation greater than three times the upper limit of the normal range. Symptoms may include jaundice, dark urine, tingling of hands and toes, nausea, vomiting, malaise, fever, and abdominal pain.

Latent TB infection (LTBI) – a condition in which a number of TB germs are present in the body but are dormant and not causing active disease. Infected persons usually have positive Mantoux test reactions, but have no symptoms related to the infection, usually have normal chest x-rays, and cannot spread TB to other persons. People with latent TB infection are at risk for developing active and infectious TB in the future. Preventive treatment with medication decreases that risk.

Mantoux test – a skin test used to screen for TB infection. A positive test is ten mm or greater for most offenders. It is five mm or greater for offenders who are HIV positive, immunosuppressed, or organ transplant recipients, or who have had recent TB contacts.

Negative pressure isolation room – a room meeting the requirements of Minnesota Occupational Safety and Health Administration (OSHA) instruction CPL 02-02-078. A negative pressure isolation room is located at the Minnesota Correctional Facility–Oak Park Heights (MCF-OPH).

Quantiferon Gold-Plus test – a blood test approved by the Federal Drug Administration for the detection of TB infection.

TB disease – a disease caused by a germ called Mycobacterium tuberculosis that is spread from person to person through the air. TB usually affects the lungs, but can also affect other parts of the body such as the brain, kidneys, or spine. Only lung and laryngeal TB are infectious.

TB suspect – an offender who is undergoing medical evaluation to determine if the offender has TB disease.

Temporary isolation room – a single-patient room with a solid door used for temporary containment of offenders awaiting placement in a negative pressure isolation room or transport to a regional medical center for further evaluation.

Two-step testing – two Mantoux tests administered sequentially, preferably one to three weeks apart, to differentiate a boosted positive skin reaction from a skin test conversion.

PROCEDURES:

A. Initial Intake Screening and Testing

1. Symptom screening

   Within 24 hours of initial intake, a nurse must evaluate an offender for the following symptoms of active tuberculosis (TB): a productive cough lasting three or more weeks, hemoptysis (blood-tinged sputum), chest pain with coughing, unexplained weight loss over ten pounds, night sweats, fever, and chills.

   a) If symptoms are present, the nurse must immediately:
      (1) Contact a physician to determine an initial course of action;
      (2) Absent a physician's order to the contrary, place the offender in a temporary isolation room pending transport to the DOC negative pressure isolation room or a regional medical center;
      (3) Make arrangements for a chest x-ray; and
      (4) Apply respiratory precautions, including instructing the offender to put on a disposable surgical mask, until the x-ray is documented as normal or other testing rules out infectious TB.

   b) If symptoms are not present, the nurse continues with routine intake procedures, including a health screen that includes information about past TB history and testing.

2. Testing

   Intake testing is only required upon admission to the DOC, not transfer between facilities.

   a) A Mantoux test must be performed upon initial admission to the DOC if the offender has no verifiable history of a prior skin test or if the prior skin test was negative. Mantoux testing is not necessary upon return to a facility from hospitalization or other absence while the offender is still in custody. In addition, two-step testing is not necessary.

   b) If the offender indicates a prior positive skin test, but this is not verifiable based on available medical records, a skin test must be performed unless the offender provides a history of severe reactions. In such cases, staff must contact the site physician or the DOC's medical director for direction.

c) Offenders with a verifiable history of a positive Mantoux test and no symptoms of active TB receive a Quantiferon Gold-Plus test in lieu of another Mantoux test. If the test results are positive, the offender must be referred for medical evaluation and have a chest x-ray within ten days.

d) All positive skin tests must be confirmed with a Quantiferon Gold-Plus test. Offenders who test positive on a Quantiferon Gold-Plus test must be referred for medical evaluation and have a chest x-ray within ten days.
   (1) If the chest x-ray is normal, no further x-rays are required unless the offender has symptoms of active TB.
   (2) If the chest x-ray is abnormal, a physician must evaluate the offender to determine a plan of care.

e) For an offender with a positive skin test and a negative Quantiferon Gold-Plus test, contact the site physician or DOC's medical director for direction.

f) Only standard posterior/anterior chest x-rays are required. A lateral chest x-ray is not needed.

B. Annual TB Screening and Testing

1. All offenders must be annually screened for TB.

2. Offenders whose prior skin tests were negative must receive annual Mantoux tests. If an annual skin test converts to positive, a nurse or other trained staff must screen the offender for symptoms of active TB.
   a) If symptoms are present, staff must immediately follow the procedures set forth above in Procedure A.1.a).

   b) If symptoms are not present, the offender must receive a Quantiferon Gold-Plus test and, if that test is positive, be referred for medical evaluation and have a chest x-ray within 10 days.

3. Offenders whose prior skin tests were positive must be screened by a nurse or other trained staff for symptoms of active TB on an annual basis.
   a) If symptoms are present, staff must immediately follow the procedures set forth above in Procedure A.1.a).

   b) If symptoms are not present, the offender continues to receive annual symptom screening.

C. Testing for Release Violators and Work Release Returns

1. Release violators and work release offenders with no verifiable history of a prior positive skin test must be given a Mantoux test upon return to custody, regardless of when the last Mantoux test was performed.

a) A positive Mantoux test must be confirmed by a Quantiferon Gold-Plus test.

b) If the Quantiferon Gold-Plus test is positive, the offender must be referred for medical evaluation and have a chest x-ray within 10 days.

2. If medical records confirm a prior positive skin test but there is no record of a prior positive Quantiferon Gold-Plus test, the offender must be given a Quantiferon Gold-Plus test.
   a) If that test is positive, staff must refer the offender for medical evaluation, and the offender must have a chest x-ray within 10 days.

   b) If the documented results of a prior Quantiferon Gold-Plus test were positive, the offender need only receive a chest x-ray unless one was conducted within the last five years.

D. Mantoux Testing Procedures
   1. See Mantoux Tuberculin Skin Testing Procedure (attached) for specific testing and reading instructions.

   2. Mantoux tests may be administered more frequently if indicated as part of a medication administration protocol.

E. Screening and Testing Compliance
   1. Offenders who refuse to comply with initial intake screening and testing for TB, including Mantoux testing or chest x-rays, are placed in administrative segregation for the purpose of gaining compliance. If an HIV-positive offender declines testing, staff must contact the DOC medical director.

   2. When an offender is placed in administrative segregation, staff must attempt to gain the offender's cooperation and document those efforts in the offender's medical record.

   3. If the offender refuses to submit to a Mantoux test, staff must offer a chest x-ray. If the offender refuses the chest x-ray, staff must offer a Quantiferon Gold-Plus test. If the offender refuses the Quantiferon Gold-Plus test, staff must notify the DOC medical director to discuss a course of action.

   4. If an offender refuses to submit to annual TB screening and testing, nursing staff must contact the DOC medical director to discuss a course of action.

   5. The commissioner of corrections has the authority to order offenders to submit to initial and annual TB testing per Minn. Stat. §144.445, subd. 1(b).

F. Preventive Therapy for Latent TB Infection

1. Offenders with latent TB infection who meet the criteria identified below must be offered preventive isonicotinylhydrazide (isoniazid or INH) therapy with rifapentine (3HP) once weekly dosing. An alternative regimen is a four-month regimen of daily dosing of rifampin (4R) Preventive therapy for latent TB is voluntary. The Minnesota Department of Health (MDH) does not recommend six months of daily isoniazid as it is not optimal treatment.

2. Preventive therapy is indicated for offenders who, regardless of age, have a positive Mantoux test and fall within one of the following high-risk groups (criteria for positive Mantoux listed in parentheses):
   a) Offenders infected with HIV (five mm or greater).

   b) Offenders at risk for HIV infection but whose HIV status is unknown (five mm or greater).

   c) Offenders who have been in close contact with a person with infectious TB (five mm or greater).

   d) Offenders with chest x-ray findings suggestive of previous TB and who have received inadequate or no treatment (five mm or greater).

   e) Offenders who injected drugs and are knowingly HIV negative (ten mm or greater).

   f) Offenders with medical conditions known to increase the risk for TB disease (ten mm or greater):
      (1) TB infection within the last two years.
      (2) Diabetes mellitus.
      (3) Silicosis.
      (4) Prolonged corticosteroid therapy (equivalent to Prednisone 15 mg/day for one month).
      (5) Other immunosuppressive therapy.
      (6) Cancer of head and neck.
      (7) All TB test conversions.

3. Preventive therapy may also be indicated for other offenders whose Mantoux tests result in induration greater than 10 mm. Because the risk of INH toxicity increases with age, a practitioner should consider this risk when deciding whether to offer and initiate preventive therapy. Offenders in this lower risk category should only be offered preventive therapy if they are likely to complete recommended preventive treatment.

4. If indicated, the preventive therapy regimen is as follows:
   a) A routine baseline and periodic liver enzyme monitoring is not recommended. If the offender has liver disease or is at higher risk for toxicity, the practitioner must order appropriate tests and follow up.

b) The nurse administers INH medication as ordered by the physician as directly-observed therapy (DOT).

c) Prophylaxis following exposure to multiple drug-resistant TB requires alternate anti-TB prophylaxis, at physician discretion.

d) All offenders are monitored monthly by facility health services staff for side effects of prophylaxis treatment. Results of the monitoring are documented on the INH medication administration record.

e) Any offender who has symptoms of INH toxicity must have the INH held and be referred to the prescribing authority.

f) Notify the prescriber of missed doses.

5. Offenders who meet the criteria for preventive therapy but have a release date less than six months away are offered an alternative treatment regimen. Staff must discuss this with the DOC medical director. See Recommended Regimens for Treatment of LTBI (attached) for alternative treatments.

6. Adolescents
INH given daily or by DOT twice weekly for nine months are the only recommended regimens for adolescents unless they were exposed to INH-resistant TB.

7. Special Circumstances
   a) For offenders with chest x-ray results consistent with inactive or past TB, a minimum of six months of daily INH therapy is recommended.

   b) For special circumstances such as offenders exposed to INH-resistant or multi-drug resistant TB disease, contact the DOC medical director.

8. If there is documentation that an offender has completed treatment for latent TB, only annual symptom screening is necessary. If symptoms are present, staff must follow the procedures outlies in A.1., above.

G. Movement and Isolation Procedures for TB suspects
Offenders who are identified as TB suspects based on symptoms or x-rays must be moved to a temporary isolation room pending transportation by ambulance to the negative pressure isolation at MCF-OPH (adult male offenders only) or a regional medical center (female, juvenile, or adult male offenders). Placement in a temporary isolation room may not exceed six hours.

1. Offenders who are symptom-free and refuse to comply with TB testing are not TB suspects. Such offenders must, however, be placed on administrative segregation status as outlined in Procedure E for the purpose of gaining compliance with

testing. Individuals coming into contact with offenders in administrative segregation are not required to wear personal protective equipment.

2. Anyone entering a temporary isolation room must wear protective respiratory equipment, and have medical certification and training in the use of that equipment. Offenders must wear a disposable surgical mask whenever staff are in the room.

3. Anyone entering the negative pressure isolation at MCF-OPH must be medically certified to wear the required respirator (N 95) and be trained in the use of that device.

4. Any offender with suspected or confirmed TB who has been placed in a negative pressure isolation room or sent to a regional medical center must remain in that environment until the attending physician, in consultation with the DOC medical director, certifies that the offender is no longer considered infectious.

5. During movement, offenders with suspected or infectious TB must wear a protective disposable surgical mask and all other offenders must be secured. All persons involved in moving the offender or who have contact with the offender must wear protective respiratory equipment (see Policy 105.115, "Respiratory Protection Program").

6. All TB suspects must be transported by ambulance. This includes transportation to the negative pressure isolation room at MCF-OPH or a regional medical center. The emergency medical services (EMS) provider should be informed that the patient is a TB suspect.

7. If a TB suspect has used a common area such as a shower, day space, or vehicle, the area must be ventilated for minimum of five air exchanges before other offenders or staff may occupy the area. No other protective or decontamination procedures are medically indicated.

H. Collection of Diagnostic Sputum Specimens

For TB suspects who have been transported to a negative pressure isolation room, nursing staff and the practitioner must:

1. Obtain three sputum specimens for smear and culture. If possible, obtain early morning specimens on three consecutive days.

2. Collect expectorated sputums only in a negative pressure isolation room.

3. If induced sputums must be collected, send offenders to a medical facility.

4. Keep offenders in a negative pressure isolation room until three negative sputum culture results have been confirmed or another method of confirmation has been completed.

I. Documentation

1. The results of symptom screening must be documented in the Annual Tuberculosis Symptom Screening form (attached)

2. Screening and testing information must be maintained in the offender's medical record. Mantoux testing information must also be entered on the offender's immunization record.

3. All Mantoux test reactions must be recorded in mm of induration, even those classified as negative. If no induration is found, "0 mm" must be noted.

J. Release of TB Offenders

1. When an offender is to be released before completing treatment for active TB, the facility medical release planner or health services administrator/designee must, as far in advance as possible, notify MDH to ensure continued adherence and timely completion of treatment.

2. When an offender is released before completing preventative therapy for latent TB, the facility medical release planner or health services administrator/designee must complete and forward a Latent TB Infection Interjurisdictional form (attached) to the appropriate county. Staff must also educate the offender on the importance of completing preventative therapy and provide the offender with a copy of the Latent TB Infection Interjurisdictional form.

3. Where applicable, the offender must be given at least a seven-day supply of medication and a prescription for 30 days.

4. Information concerning an offender's Mantoux testing must be included in the Release Health Care Summary that is forwarded to the supervision agent upon release from a correctional facility (see Policy 203.012, "Release Health Care Summary").

INTERNAL CONTROLS:

A. TB screening, monitoring, and treating is documented in the offender's medical record.

B. Copies of all forms related to TB screening, monitoring, and treating are retained in the offender's medical record.

ACA STANDARDS: 4-4362, 4-4365, 4-4348, 4-4355

REFERENCES: Minn. Stat. § 144.445
Policy 105.115, "Respiratory Protection Program"
Policy 203.012, "Release Health Care Summary"
Policy 500.203, "Release Medications"
Policy 500.522, "Negative Pressure Isolation Rooms"

Centers for Disease Control and Prevention, "Prevention and Control of Tuberculosis in Correctional and Detention Facilities: Recommendations from CDC." *Morbidity and Mortality Weekly Reports* July 7, 2006/55 (RR_9); 1-54.
OSHA instruction CPL 02-02-078, "Enforcement Procedures and Scheduling for Occupational Exposure to Tuberculosis." 06/30/2015.
Order and Consent Decree 4-73 CIV.387.
Core Curriculum of Tuberculosis, 6th Edition 2013, U.S. Department of Health and Human Services.
Minnesota Department of Health resource page, "Targeted Tuberculin Testing and Treatment of Latent Tuberculosis".
National Tuberculosis Controllers Association (NTCA), "Using the Isoniazid/Rifapentine Regimen to Treat Latent Tuberculosis Infection (LTBI)"
Minnesota Department of Health, "Updated Latent Tuberculosis Infection (LTBI) Screening and Treatment Recommendations "

REPLACES: Policy 500.520, "Tuberculosis Prevention and Control for Offenders," 8/6/19.
All facility policies, memos, or other communications whether verbal, written, or transmitted by electronic means regarding this topic.

ATTACHMENTS: Offender Annual Past Positive Mantoux Screening form (500.520A)
Latent TB Infection Interjurisdictional Transfer Form (500.520B)
Mantoux Tuberculin Skin Testing Procedure (500.520D)
Recommended Regimens for Treatment of LTBI (500.520E)

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