Table of Contents

Patient Pretreatment Evaluation and Monitoring

Policy: Latent Tuberculosis Infection (LTBI) must be diagnosed and active TB Disease ruled out prior to initiating treatment. LTBI patients should be evaluated at least monthly during treatment.

Purpose: To ensure safe and appropriate treatment for LTBI.

Procedure:

1. **Rule out active TB Disease.** Ensure that the client has received a medical evaluation and current anterior/posterior (AP) chest x-ray (CXR) to rule out active TB Disease, **prior to beginning treatment for LTBI.** Children under 18 years of age need an AP/lateral CXR. The TB signs and symptoms checklist should be completed as soon as possible for each individual with a positive TST or Interferon Gamma Release Assay (IGRA).

   If patient is symptomatic, collect three sputums and submit to the Missouri State Public Health Lab for evaluation (see Section 3). The three sputums must be collected at least eight hours apart, with one of the three being an early morning collection. If cultures are pending, wait for results before beginning LTBI treatment, even if sputum results are smear negative.

2. **Clinical Monitoring:** Schedule a home or clinic visit with the patient at least once per month to include:
   - Brief physical assessment for signs of hepatitis (See Appendix: Urine Chart)
   - Assessment of adherence to treatment
   - Review of symptoms for possible adverse medication reactions or interactions
   - Review of signs and symptoms of TB Disease (Signs and Symptoms Checklist)

3. **Liver Function (LFT) Testing:**
   a. Baseline AST/SGOT, ALT/SGPT at the start of LTBI therapy is recommended for clients with any of the following:
      - Liver disorders
      - History of liver disease (hepatitis B or C, alcoholic hepatitis or cirrhosis)
      - Regular use of alcohol
      - Risks for chronic liver disease
      - HIV infection
      - Pregnancy or immediate postpartum period (within 3 months of delivery)

b. Baseline testing can be considered on an individual basis, especially for patients taking other medications for chronic medical conditions. LFT's will only be covered by the Diagnostic Services Program (DSP) on a case by case basis, with prior approval by the DHSS TB Elimination Program. (See TB Manual-DSP Program)

c. Routine periodic retesting is recommended for individuals with abnormal initial results and other persons at risk for hepatic disease.

d. Laboratory testing is recommended for any patient who has symptoms suggestive of hepatitis such as:

Fatigue, weakness, malaise, anorexia, nausea, vomiting, abdominal pain, pale stools, dark urine, chills, or signs of jaundice

e. AST level 3 or more times the upper limit of normal can be accepted if the patient is free of hepatitis symptoms and up to 3 times the upper limit of normal if there are signs and symptoms of liver toxicity.

Also see *MMWR Treatment of Tuberculosis* at:
https://www.cdc.gov/mmwr/PDF/rr/rr5211.pdf Page 43 - Section 6.3.4. Hepatitis

4. **Patient Education:**
   a. Explain the disease process and rationale for medication in the absence of symptoms or CXR abnormalities.
   b. Provide patient education, written and verbal instructions, in patient's primary language, if available.
   c. Advise the patient to abstain from the consumption of alcohol, to include beer and wine. The combination of alcohol and TB medications together can cause life threatening liver conditions.
   d. Reinforce patient education at each visit.
   e. Ensure confidentiality.
   f. Review the importance of completing treatment for LTBI.
5. **Patients should be instructed to take the following steps if symptoms of hepatitis develop:**
   - **Immediately stop taking medications and contact Case Manager/clinic. Follow instruction of Case Manager/clinic personnel regarding medical attention.**
   - **If Case Manager/clinic personnel are not immediately available, leave a message notifying of the development of symptoms, then seek emergency medical attention.**
   - **Follow up with Case Manager/clinic regarding continuation or alteration of LTBI treatment regimen**

6. **Assessing Adherence:**

   a. Many variables affect a patient's adherence to the medication regimen for treatment of LTBI. Episodes of non-adherence should be addressed as soon as possible.

   b. Adherence Questionnaire:

   - When do you take your medicines?
   - How do you remember to take your medicines?
   - How many pills did you miss?
   - How many pills do you have left in your medication bottle?
   - When was the last time you missed any of your LTBI medications?

   c. Request patient to bring medication bottles with them to each clinic visit. Count the remaining pills in each bottle.

   d. Discuss patient reminders such as pill boxes or calendars to increase adherence to medication regimen.

7. **Directly Observed Therapy (DOT)** should be considered under the following circumstances:

   a. Medication is prescribed intermittently. There are several treatment regimens available for the treatment of LTBI. Providers should choose the appropriate regimen based on:

   - Drug-susceptibility results of the presumed source case (if known);
   - Coexisting medical illnesses; and
   - Potential for drug-drug interactions.

   b. For persons who are at especially high risk for TB disease and are either suspected of non-adherence or are given an intermittent dosing regimen, directly observed therapy (DOT) for LTBI should be considered. (**For more information on DOT, see the; *Case Management: Disease* located at: http://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap4.pdf).**

   This method of treatment is especially appropriate if the person in need of LTBI treatment lives with a household member who is on DOT for TB disease, or lives in an institution or facility where treatment for LTBI can be observed by a staff member. It is necessary to exclude TB disease before starting LTBI treatment.

   c. The patient is high risk (HIV positive, TB contact or child less than 5 years of age).

8. **Dispensing TB Medications:**
    a. Ensure the five rights of medication administration are followed: Right patient, right medication, right time, right dose, and right route.
    b. Check patient allergies.
    c. Do not issue more than a 30-day supply of medication at each monthly clinic visit.
    d. Medication provided by the state contracted pharmacy may be transferred to another outpatient agency (i.e. school or university) who will be providing DOT for the patient. *Medication provided thru the state contracted pharmacy cannot be transferred with a patient being admitted to an inpatient facility (i.e. long-term care facility, detention center).* If the patient is transferring out of state, obtain the new address and phone number and notify the state TB Program. Do not send more than a 30 day supply of LTBI medications with the patient if they are transferring out of state. Notation of the transfer of medication should be documented in the patient record and DHSS's TB Elimination Program shall be notified. LPHA staff are responsible for monthly follow up of all patients receiving LTBI treatment.

9. **Documentation of Clinic Visit:**
    a. If it is not documented, it did not happen.
    b. Signs/symptoms of adverse reactions must be documented with actions taken in the patient record.
    c. Information can be entered into the encounter page of the WebSurv program.
    d. Information is to be documented on page 2 (backside) of the TBC-4.
    e. Send a copy of the completed TBC-4 to the DHSS's TB Elimination Program if not entered in WebSurv.

Back to Top

Obtaining TB Medications

Policy: To provide medications for the treatment of Latent Tuberculosis Infection (LTBI) as funding allows.

Purpose: To eliminate all barriers in providing LTBI medications to patients that are at increased risk for progression of LTBI to TB disease. To facilitate nursing case management of LTBI patients through the Local Public Health Agency (LPHA).

Procedure:

1. If the patient meets any of the eligibility criteria from the CDC Core Curriculum on Tuberculosis, sixth edition 2013, page 32, Table 2.6

   https://www.cdc.gov/tb/education/corecurr/pdf/chapter2.pdf

   The LPHA should complete the LTBI Medication Authorization (TBC-9) and FAX, or send encrypted email to TBProgram@health.mo.gov, with a copy of the CXR report, Tuberculin Testing Record (TBC-4), and the prescriptions (see appendix for forms) to the state TB program. Copies should be retained in the patient record. Once the state nurse has reviewed the documents and authorized the TBC-9 it will be faxed back to the LPHA. The LPHA should fax the authorized TBC-9 along with the prescription(s) to the state contracted pharmacy (see TBC-9 for pharmacy fax number).

   - State TB Program Fax number: (573) 526-0234

2. The prescription may be written for the entire expected course of treatment. The pharmacy will dispense ONE MONTH at a time.
3. Check the Five "R"s of medication before administering: Right medication, Right dose, Right patient, Right route, and Right time.
4. The medication is only to be given to the patient and/or legal guardian in which the medication bottle is labeled and for whom the prescription is written.
5. The LPHA should see the patient at least monthly to monitor for adverse effects to the medications, evaluate for signs and symptoms of TB and document the monthly finding on the back of the TBC-4. If the patient reports any adverse effects or signs and symptoms of TB disease, then **HOLD** the patient's medications, and notify the medical provider immediately for further direction. ***If it is an emergency refer the patient to the closest emergency room.***

If the health care provider chooses to evaluate the patient monthly, instead of the LPHA, then the LPHA is responsible for calling the health care provider monthly (See Introduction/Roles and Responsibilities). Complete the back of the TBC-4 for each monthly call and document the follow up. Once the patient has completed treatment FAX the completed, front and back, of the TBC-4 to the state TB program. **Back to Top**

LTBI Treatment Regimens

Policy: All individuals taking treatment for LTBI should be on a standard treatment regimen as indicated by the CDC/ATS recommendations.

Purpose: To ensure safe and appropriate treatment for LTBI.

Drug(s)	Duration	Dose	Frequency	Total Doses
Isoniazid (INH)* and Rifapentine (RPT	3 months	Adults and Children aged 12 years and older: INH: 15mg/kg rounded up to the nearest 50 or 100 mg; 900 mg maximum RPT: 10-14.0 kg 300 mg 14.1-25.0 kg 450 mg 25.1-32.0 kg 600 mg 32.1-49.9 kg 750 mg ≤50.0 kg 900 mg maximum Children aged 2 – 11 years: INH*: 25 mg/kg; 900 mg maximum RPT†: as above	Once weekly	12
Rifampin (RIF)§	4 months	Adults: 10 mg/kg Children: 15–20 mg/kg¶ Maximum dose: 600 mg	Daily	120
Isoniazid (INH)* and Rifampin)§	3 months	Adults: INH*: 5 mg/kg; 300 mg maximum RIF§: 10 mg/kg; 600 mg maximum Children: INH*: 10-20 mg/kg; 300 mg maximum RIF§: 15-20 mg/kg; 600 mg maximum	Daily	90
Isoniazid (INH)	6 months	Adults: 5 mg/kg Children: 10–20 mg/kg¶ Maximum dose: 300 mg	Daily	180
		Adults: 15 mg/kg Children: 20–40 mg/kg¶ Maximum dose: 900 mg	Twice weekly‡	52
	9 months	Adults: 5 mg/kg Children: 10–20 mg/kg¶ Maximum dose: 300 mg	Daily	270
		Adults: 15 mg/kg Children: 20–40 mg/kg¶ Maximum dose: 900 mg	Twice weekly‡	76

Reference: *Core Curriculum on Tuberculosis: What the Clinician Should Know*. Sixth Edition 2013. Chapter 5, Treatment of LTBI.
https://www.cdc.gov/tb/topic/treatment/ltbi.htm

***Isoniazid (INH); Rifampin (RIF); Rifapentine (RPT)**

****updated age recommendations:** https://www.cdc.gov/tb/topic/treatment/ltbi.htm

Peripheral Neuropathy

- Uncommon at doses of 5 mg/kg
- Those at risk may also be given pyridoxine (vitamin B6)
    - ♦ Persons at high risk for neuropathy (e.g., diabetes, uremia, alcoholism, malnutrition, HIV infection)
    - ♦ Pregnant women
    - ♦ Persons with a seizure disorder
    - ♦ Patients who develop signs and symptoms of peripheral neuropathy

Medication Fact Sheets: (see the *TB Manual; Appendices/Educational Materials* located at: http://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Appendices.pdf

Checklist for Latent TB Infection – (see *TB Manual; Appendices/Other Resources* located at: http://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Appendices.pdf

Back to Top

LTBI Medications – Adverse Effects

Policy: To educate the patient concerning the adverse effects of medications used for the treatment of LTBI.

Purpose: To ensure the patient has education concerning the adverse effects of TB medications and what action to take.

NOTE: **Patients should be instructed initially and at each monthly visit to stop taking TB medications and to seek medical attention immediately if symptoms of hepatitis (liver toxicity) develop and not to wait until a clinic visit to stop medications.**

Three of the first line anti-tuberculosis drugs, INH, Rifampin, and PZA, can cause drug-induced liver injury. If the LFT (liver function tests) AST level is three or more times the upper limit of normal in the presence of hepatic symptoms, or five or more times the upper limit of normal in the absence hepatic symptoms. The medications should be stopped immediately and the patient should be evaluated by a medical provider. If the AST is less than 5 times the upper limit of normal, toxicity can be considered mild, an AST level of 5-10 times normal defines moderate toxicity, and AST level of greater than ten times normal (i.e., greater than 500 IU) is severe. It is important to note that an asymptomatic increase in AST concentration occurs in nearly 20% of patients being treated with the standard four-drug regimen. In the absence of clinical and laboratory monitoring should be increased.

Possible adverse effects of INH:

- Risks of fulminant INH-related hepatitis appear to be greatest if INH is continued after onset of symptoms of hepatotoxicity. (In one study, 7 of 8 patients requiring INH related liver transplant continued taking INH for at least 10 days after onset of symptoms.
- In addition to clinical monitoring, it is essential to educate patients about the symptoms of hepatotoxicity and instructing them to stop treatment immediately if such symptoms occur and report to the clinician for evaluation.
- Clinical hepatitis occurs in 0.1% to 0.15% of people taking INH, and is more common when INH is combined with other agents. Factors that may increase either these rates or the severity of the hepatitis include:
    - alcohol consumption,
    - underlying liver disease
    - use of other medications which are metabolized in the liver such as Acetaminophen.

- Peripheral neuropathy, caused by interference with metabolism of Vitamin B6 (pyridoxine) can occur in less than 0.2% of people taking INH at regular doses (300 mg a day), and is more likely in the presence of other conditions associated with neuropathy such as diabetes, HIV, renal failure and/or alcoholism. 10-50 mg of Vitamin B6 (pyridoxine) supplementation is recommended for:

    a. Pregnant or breastfeeding women.

    b. Individuals with seizure disorders.

    c. Patients with conditions in which neuropathy is common (e.g. diabetes, uremia, alcoholism, malnutrition, HIV infection).

Recommended dosage for adults 5 mg/kg daily (300 mg per day maximum) or 15 mg/kg 2 – 3 times weekly (up to 900 mg maximum), as prescribed by the physician.

Patients unable to tolerate INH can often tolerate Rifampin.

Possible adverse effects of Rifampin:

1. Hepatotoxicity may occur in 0.6% of persons taking Rifampin. Hepatitis is more likely when combined with INH.

2. Cutaneous skin reactions, such as flushing and itching with or without a rash, may occur in 6% of persons taking Rifampin. It is generally self-limiting and may not be a true hypersensitivity; continue treatment if possible.

3. Gastrointestinal symptoms such as nausea, anorexia, diarrhea and abdominal pain are rarely severe enough to discontinue treatment.

4. Reddish orange to reddish brown discoloration of body fluids (urine, stool, saliva, sputum, sweat and tears) is expected and harmless, but patients should be advised and prepared to see this side effect. Soft contact lenses may be permanently stained.

5. Rifampin interacts with a number of drugs. It is known to reduce concentrations of oral hypoglycemic agents, methadone, warfarin, oral contraceptives and phenytoin. Women using oral or other systemic hormonal contraceptives are at greater risk of becoming pregnant during Rifampin therapy therefore these patients should use a backup barrier form of contraception, such as condoms, to avoid pregnancy during treatment.

   If patient thinks they have become pregnant during treatment, stop treatment and notify physician.

6. All drugs in treating TB can cause a rash. The response to a patient with a rash depends on its severity. Thrombocytopenia (low platelets) is a possible adverse reaction to Rifampin. A baseline complete blood count (CBC), including platelet count should be obtained for

7. all adults. A petechial rash may suggest thrombocytopenia (dangerously low blood count) in patients taking Rifampin. If a petechial rash occurs the platelet count should be checked and, if low, Rifampin hypersensitivity should be presumed to be the cause. Rifampin should be stopped and the platelet count monitored until it returns to baseline; Rifampin should not be restarted. If the rash is generalized, especially associated with fever and/or mucous membrane involvement, all drugs should be stopped immediately and the physician should be notified. If emergency the patient should seek immediate medical attention. If the patient has been assessed by their medical provider and the rash has substantially improved, the medications can be restarted one by one, at intervals of 2-3 days. Rifampin should be restarted first, followed by INH, and EMB or PZA. If the rash recurs the last drug added should be stopped. If no rash appears after the first three drugs have been restarted, the fourth drug should not be restarted unless the rash was relatively mild and the fourth drug is considered essential for therapy.

8. Rifampin is contraindicated in HIV infected patients being treated with certain protease inhibitors (PI) or nonnucleoside reverse transcriptase inhibitors (NNRTI). In the situation, Rifabutin may be substituted for Rifampin.

Back to Top

Interruption of Therapy

Policy: To provide the patient with the recommended treatment for LTBI when interruptions of therapy occur.

Purpose: To provide recommendations to ensure the patient receives the recommended doses of medication to complete therapy.

Procedure:

1. Completion of therapy is based on the total number of doses administered – not on the duration of therapy alone.
   a. The 4-month regimen of daily Rifampin (RIF) consists of 120 doses, at minimum, administered within 6 months.
   b. The 3-month regimen of INH and RIF (3HR) consists of 90 doses, at minimum, administered within 4 months.
   c. The 12 dose once weekly regimen of INH/Rifapentine (3HP) consists of 12 doses, 11 doses at minimum, administered within 16 weeks (there must be 3 days minimum between doses).
   d. The 6 month regimen of daily INH consists of 180 doses, at minimum, administered within 9 months. Twice weekly INH for 6 months consists of 52 doses, at minimum, administered within 9 months and must be given by DOT.
   e. The 9 month regimen of daily INH consists of 270 doses, at minimum, administered within 12 months. Twice weekly INH for 9 months consists of 76 doses, at minimum administered within 12 months and must be given by DOT.
2. Ideally, the patient should receive medication on a regular dosing schedule until completion of the indicated course of therapy. However, in practice some doses may be missed, requiring the course to be lengthened.
3. When restarting therapy for patients who have interrupted treatment, clinicians may need to continue the regimen originally prescribed or restart (renew the entire regimen if interruptions were frequent enough to preclude treatment doses as recommended above) the entire treatment regimen depending upon the length of the interruption and if there is sufficient time for the patient to complete the recommended doses within the recommended length of time (e.g. 4 month regimen of RIF within 6 months and complete 120 doses or a 6 month regimen of INH within 9 months and complete 180 doses).

4. If greater than a 2-month interruption of therapy occurs, a medical examination to rule out active TB disease is indicated.

***Intermittent regimen should be given utilizing DOT.**

****12 dose regimen must be given by DOT.**

Back to Top

Special Considerations in Treatment of LTBI

Policy: To provide appropriate treatment for LTBI for all individuals.

Purpose: To address special conditions while treating individuals for LTBI.

Contacts to Cases:

1. Contacts are those with recent, prolonged exposure to a person with known or suspected infectious TB. They should be evaluated immediately for TB disease and LTBI.

2. If TST or IGRA is positive, LTBI treatment guidelines should be followed, after ruling out active TB disease.

3. If TST or IGRA is negative, the contact should be retested in 8 – 10 weeks to allow time for the contact's immune response to TB infection to be detectable.

4. Window Treatment:

    - If a contact is a child less than 5 years of age, or an immunocompromised person of any age, they should have a TST or IGRA, medical evaluation and an anterior/posterior (AP), chest x-ray (CXR). The CXR for children should include a lateral view. If they are all negative, then treatment with daily RIF (preferred) should by initiated immediately until the 2nd follow up TST or IGRA is done in 8-10 weeks. (If the child is less than 6 months of age, the follow-up TST or IGRA should be done after the child is over 6 months of age, due to possible anergy). If the follow-up TST or IGRA is negative, no further treatment is needed for LTBI. If the follow-up TST or IGRA are positive, then treatment should be continued as an LTBI, until they have completed 4 months (120 doses) of RIF within 6 months. If it is known that the disease case is resistant to RIF then INH can be given. Please contact the State TB nurse for guidance if needed.

5. DOT is recommended for infected contacts of active disease cases, especially children under 5 years of age and any individual that is immunocompromised.

Re-Infection:

In general, TST or IGRA positive contacts with a **documented** history of prior adequate treatment for LTBI do not need to be retreated. Re-treatment may be indicated for persons at high risk of becoming infected and progressing to TB disease again, such as immunocompromised persons.

HIV-Positive Individuals:

1. HIV infected individuals should be treated with a 9-month regimen of daily INH.

2. Rifampin is contraindicated in HIV-infected person being treated with certain combinations of antiretroviral drugs. In those cases, Rifabutin may be substituted for Rifampin. See CDC website: https://www.cdc.gov/tb/topic/treatment/tbhiv.htm.

3. If TST or IGRA is negative, treat if person has recent, prolonged exposure to infectious TB or if there is ongoing risk for exposure.

Pregnancy:

1. Consider immediate treatment for LTBI if the woman is HIV-infected or is a recent contact to TB disease case.

2. In the absence of risk factors for active TB, wait until three months post-partum to avoid administering medication during pregnancy.

3. INH daily or twice weekly by DOT is the preferred regimen.

4. Supplementation with 50 mg daily, of vitamin B6 is recommended.

Breastfeeding:

1. Breastfeeding is **NOT** contraindicated in women taking INH.

2. Supplementation with 50 mg daily, of vitamin B6 is recommended for nursing women and breastfed infants.

3. Amount of INH in breast milk is inadequate for treatment of infants exposed to TB.

Infants and Children:

1. Infants and children under 5 years of age with LTBI have been recently infected and, therefore, are at high risk for progression to disease.

2. Risk of INH-related hepatitis in infants, children and adolescents is minimal.

3. Routine monitoring of serum liver enzymes is not necessary.

4. DOT is the standard of care.

Back to Top

Post-Treatment Follow-Up

Policy: All individuals completing a course of treatment for LTBI will be provided documentation of that treatment.

Purpose: To ensure that the patient has a record of LTBI treatment for any future medical care.

Procedure:

1. Patient should receive documentation of TST/IGRA results and treatment completion that includes: names and doses of medications, date of test, administered and read, date of CXR and date started treatment and completed. A copy of the TBC-18 and letter of treatment completion should be given to the patient for their records. In addition, a copy of the TBC-19 may be given to the patient.

   See the *TB Manual; Appendices/Sample Forms* located at:
   http://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Appendices.pdf

2. The patient should be instructed to present this documentation in lieu of a TB test any time future testing is requested of the patient. See *Annual Statement for Tuberculin Reactors Form.

3. Patients should be re-educated about the signs and symptoms of TB disease and told to contact his/her medical provider or local health department should any of these symptoms develop.

4. **Routine CXRs are NOT needed, regardless of whether the client completes treatment for LTBI. An annual signs and symptom review should be done in place of a CXR. A CXR is only indicated if the patient develops signs or symptoms of TB Disease.**

*Annual Statement for Tuberculin Reactors Form: located at http://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Appendices.pdf

Back to Top

Declining Treatment for LTBI

Policy: Treatment for latent TB infection (LTBI) is recommended to every person who is diagnosed with LTBI.

Purpose: To ensure that each person has access to education to make an informed decision about receiving treatment for LTBI.

Procedure:

1. Ensure the patient has received a medical evaluation and CXR to rule out active TB disease.
2. Educate the patient concerning the risks and benefits of receiving LTBI treatment.
3. Provide written TB educational materials for the patient, in their primary language, if available. Contact the TB Elimination Program for assistance in obtaining such materials.
4. Allow the patient an opportunity to ask questions and keep lines of communication open. It is important to build trust, so that the patient feels comfortable to ask questions or discuss concerns, which could prevent possible future issues.
5. Have the patient sign the document: "Declining Treatment for LTBI", and place this document in the patient's record. If the client agrees to take the treatment, have them sign the Corresponding Medication Fact Sheet and keep in the patient's record also give the patient a copy to take with them.

   See the *TB Manual; Appendices/Sample Forms* located at:
   http://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Appendices.pdf

   If after starting treatment the patient decides they no longer wish to take the medication, have them sign the Declining Treatment for LTBI and attach to the signed INH Medication Fact Sheet and place in patient's record.
6. Explain to the patient that if they change their mind concerning taking treatment for LTBI, they should contact their local health department. If this occurs, please notify the State TB nurse.

Back to Top

Latent Tuberculosis Infection Case Definition

Clinical criteria:

- Clinical criteria alone are not sufficient to classify a case of TB Infection. Clinical criteria to confirm a suspected case of TB Infection are as follows:
    - No clinical evidence compatible with TB Disease including:
        - No signs or symptoms consistent with TB Disease, AND
            - Chest imaging without abnormalities consistent with TB (chest radiograph or CT scan), OR
            - Abnormal chest imaging that could be consistent with TB Disease with microbiologic testing that is negative for *M. tuberculosis* complex AND where TB Disease has been clinically ruled out

Laboratory Criteria for Diagnosis:

- Laboratory/diagnostic criteria alone are not sufficient to confirm a case of TB Infection. Laboratory criteria to identify suspected cases of TB Infection are as follows:
    - A positive tuberculin skin test (TST), * OR
    - A positive interferon gamma release assay (IGRA)

Criteria to Distinguish a New Case from an Existing Case

- A new case is an incident TB Infection case that meets the suspected or confirmed case criteria and has not previously been diagnosed or treated for TB Infection OR previously treated for TB Disease

Case Classification

- Suspect**
    - A case that meets one or more of the laboratory criteria, AND
    - *M. tuberculosis* complex was not isolated from a clinical specimen, if a specimen was collected
- Confirmed
    - A case that meets one of the laboratory criteria for TB Infection, AND
    - *M. tuberculosis* complex was not isolated from a clinical specimen, if a specimen was collected, AND
    - Meets the clinical criteria for TB Infection as listed above

*See "Classifications of TST Reactions" in Section 2 of the Tuberculosis Case Management Manual for more information: https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap2.pdf

**Entered as "NON-LTBI" in Websurv

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Back to Top

Interjurisdictional Transfer

Policy: To provide prompt notification to the state, city, or county when a patient relocates.

Purpose: To ensure continuity of care when Tuberculosis (TB) patients relocate.

Procedure:

1. **Moving within the state**:
   a. Notify by phone the receiving jurisdiction as soon as possible when a patient is relocating. The receiving county should immediately contact the patient. If the receiving county cannot locate the patient – contact the original county and see if additional information is available.
   b. Provide a copy of the patient's record to the receiving health department/
   c. A signed release is NOT needed to transfer patient information to another health department.
   d. Notify the state TB Program of the patient relocation.

2. **Moving outside the state**:
   a. The Local Public Health Agency (LPHA) must notify the Bureau of Communicable Disease Control and Prevention (BCDCP)/TB Elimination Program **prior** to a patient moving outside the state of Missouri. An Interstate Reciprocal Notification of Disease form will be forwarded to the state to which the patient has moved.

3. **Moving to Missouri from out of state**:
   a. When a patient moves into Missouri, the state receives the Interstate Reciprocal Notification of Disease form from the originating state. The information will be passed to the LPHA were the patient is moving.

4. **Patient's moving to Mexico**:
   a. Contact the BCDCP/TB Elimination Program if a patient is relocating to Mexico.
   b. CURE-TB is an organization that provides linkage between Mexico and United States health departments. It helps improve continuity of care for TB patients traveling between the US and Mexico.
   c. For additional information on the Cure-TB Program the web site is: http://www.sdcounty.ca.gov/hhsa/programs/phs/cure_tb/

5. **Supervision in the county other than residence**:
   a. If a patient receives a service in a LPHA other than his county of residence, notify the State TB Control Program.

Back to Top

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Back to Top