

SUBJECT/TITLE: Management of Individuals with Latent Tuberculosis Infection (LTBI)

SUMMARY: Screening for latent tuberculosis infection (LTBI) and providing treatment to prevent progression to active disease are important for the ultimate elimination of tuberculosis. However, these strategies are lower priority than core control activities such as the identification and treatment of active cases, contact investigations that include the evaluation and treatment of contacts, and disease surveillance. As resources become more limited, it is increasingly important to direct screening performed toward those populations where the yield and benefit are likely to be greatest. Consequently, the only screening programs that should be undertaken are those that target specific, high-risk populations and that include an initial evaluation for infection and a plan to ensure completion of treatment.

Local health districts vary in their ability to offer targeted testing and screening services. At a minimum, all districts must ensure appropriate screening and testing of contacts to potentially infectious TB cases, individuals with a TB classification, and individuals eligible for an initial refugee health screening.

BRIEF BACKGROUND: The primary goal for any screening and testing program for LTBI is the successful treatment of those who are infected. Case management is the preferred strategy for coordinating client care, for it not only ensures that the client is educated about LTBI and its treatment, but that he or she will be more likely to complete a course of appropriate therapy.

It is beyond the scope of this document to cover all situations that may arise during the course of treatment or investigation of any one individual or community. All nurses and practitioners involved in the management of screening, testing, and treatment programs for clients with LTBI should have immediate access to guidelines, policies, and procedures published by the [Centers for Disease Control and Prevention \(CDC\)](#) and the [Virginia Department of Health \(VDH\) Tuberculosis and Newcomer Health Program](#).

PROCEDURE/DIRECTIVE:

Screening and Testing for Latent TB Infection

- Before testing for latent TB infection (LTBI), screening should be performed with an approved VDH risk assessment form. See the VDH [Screening and Testing](#) webpage for more information.
- CDC, VDH, and local district guidelines should be utilized for the administration, reading, and interpretation of tuberculin skin tests (TST).
- According to the Code of Virginia [§ 54.1-3408](#), only practitioners and registered nurses may administer and interpret a TST. Licensed practical nurses working under the direct

supervision of a registered nurse may place and measure a TST, but may not provide interpretation.

- Non-licensed personnel may not place a TST, but may palpate and measure a reaction. Non-licensed personnel may not provide interpretation of the TST.

Required Evaluation to Determine LTBI versus Active TB Disease

- Individuals with a new positive TST or interferon-gamma release assay (IGRA) should be evaluated to rule out the presence of active TB disease. A review of TB signs and symptoms, past exposure history, and a chest x-ray (CXR) should be performed.
- Individuals with a past, positive TST or IGRA who want to pursue treatment must have a CXR within three months prior to initiating treatment.
 - If they refuse treatment, a CXR is not needed unless they are symptomatic or have a new risk for progression to active TB disease.
- Collection of sputum is recommended if CXR shows abnormalities consistent with active TB disease, or if the client is symptomatic and able to produce sputa. If necessary, sputum induction should be attempted.
- If bacteriology samples are collected for any individual screened, treatment for LTBI should be deferred until final culture results are received and active TB disease is ruled out. As appropriate, an individual may be started on multiple anti-TB drugs for presumptive active TB disease prior to receipt of culture results.

Management of Individuals with Latent TB Infection

- All individuals with LTBI should be offered treatment for LTBI according to CDC or VDH guidelines. See the VDH [Screening and Testing](#) webpage for more information.
- All individuals initiating treatment should be provided with client education regarding possible side effects and adverse reactions to the selected treatment regimen, including what to do should problems arise, e.g., calling the local health department/public health nurse or holding medications.
- All individuals undergoing treatment for LTBI should receive a monthly clinical assessment by a licensed staff member.
- Baseline laboratory testing is not routinely indicated for all patients at the start of LTBI.
 - Baseline testing is indicated for patients with HIV infection, pregnant women, and women in the immediate post-partum period (i.e., within 3 months of delivery), persons with chronic liver disease, persons who use alcohol regularly, and persons at risk for liver disorder.
 - Baseline testing is not routinely indicated in older persons. However, such testing may be considered on an individual basis, particularly for patients taking medication for chronic medical conditions.

Evaluation and Treatment of Latent TB Infection

- The public health nurse (PHN) will obtain a medical and drug history, complete a VDH-approved [Initial/Monthly TB Clinical Assessment form](#), and collect the results of the CXR report and all other objective tests for the practitioner to review.
 - If abnormal findings are found at the nurse visit, then the client should be referred to the clinician for an exam prior to any further actions.
- The practitioner will review the TB risk assessment form, medical and drug history, the Initial TB Clinical Assessment form, the CXR report, and all other objective tests.
 - The CXR report serves as an “appropriate examination” to meet the physical examination requirement to establish the bona fide practitioner-patient relationship needed for a practitioner to write a prescription.
- The practitioner must document the review, assessment of the information, diagnosis, recommendations, and orders on a VDH-approved Clinician Orders and Progress Note forms in the client record, as indicated.
- VDH practitioners may prescribe a Schedule VI antibiotic for the treatment of LTBI when the requirements above are met. Treatment should be in accordance with CDC and/or VDH guidelines.
- The practitioner will direct the public health nurse to provide information to the patient about the risk and benefits of the medication that the practitioner prescribes to the patient. The practitioner will direct the PHN to initiate additional interventions and follow-up care, if necessary. This information must be documented in the client record.
- The PHN will conduct a monthly nursing assessment and review side effects of the prescribed medication.
 - Any adverse reactions must be reported to the practitioner within one (1) business day and documented in the client record.
 - Medications should be held until the practitioner has been contacted according to local protocol.

Recordkeeping

- Documentation is needed for all encounters with the TB program.
- Documentation by Exception chart forms are not appropriate for inclusion in the TB case management record. Refer to the [Recommendations for TB Record and Form Use](#) for more information.
- Forms, test results, and other medical records should be filed in the client record according TB program standards and agency or local health district guidelines.
- A case management record is needed for
 - All presumed or confirmed cases regardless of source of care, or
 - All clients who meet one or more of the following criteria:
 - Referred for CXR,
 - Sputum collected,
 - Identified as presumptive or active case of TB disease regardless of the source of medical care,

- Recommended for treatment for LTBI as a contact to an active case regardless of the source of medical care, and/or
 - Recommended for treatment for LTBI as a reactor or convertor by the local health department.
- TB 502 Contact Investigation forms and all other documentation related to the investigation should be filed in a separate folder adjacent to the client record. The folder should be labeled, “Contacts of [*Case Name*].”
 - Individual client Risk Assessment or Contact Evaluation [forms](#) should be stored in client records or elsewhere according to district policy and not within the Contacts of [*Case Name*] folder.
 - A summary document detailing the findings of the contact investigation should be placed in the case record. This summary should be a summary of findings and aggregate data and should not contain information that would identify individual contacts.
- Contact investigation is the responsibility of the local health department. Services related to the investigation and evaluation of contacts are provided free of charge. The current VDH [Eligibility Guidelines](#) and [Tuberculosis Contact Investigation Guidelines](#) should be utilized.

Notes

- [Virginia Code § 54.1-3303](#) establishes that a prescription shall be issued only to persons with whom the practitioner has a bona fide practitioner-patient relationship. A bona fide practitioner-patient relationship exists if the practitioner has
 - Obtained or caused to be obtained a medical or drug history of the patient;
 - Provided information to the patient about the benefits and risks of the drug being prescribed;
 - Performed or caused to be performed an appropriate examination of the patient, either physically or by use of instrumentation and diagnostic equipment through which images and medical records may be transmitted electronically; and
 - Initiated additional interventions and follow up care, if necessary, especially if prescribed drug may have serious side effects.
- Definition of practitioner: Licensed physician, nurse practitioner, or physician assistant with prescriptive authority in the state of Virginia.

EVIDENCE BASE:

Borisov AS, Bamrah Morris S, Njie GJ, et al. *Update of Recommendations for Use of Once-Weekly Isoniazid-Rifapentine Regimen to Treat Latent Mycobacterium tuberculosis Infection*. MMWR Morb Mortal Wkly Rep 2018; 67:723–726.
DOI: <http://dx.doi.org/10.15585/mmwr.mm6725a5External>.

Code of Virginia (§ 54.1-3408 G.) Professional Use by Practitioners. Retrieved from: <http://law.lis.virginia.gov/vacode/title54.1/chapter34/section54.1-3408/>

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