

**NURSING DIRECTIVES/GUIDELINES**

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

**SECTION:** Standards of Care

**SUMMARY:** Screening for tuberculosis infection (TBI) and providing treatment to prevent progression to active disease are important in 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 including the evaluation and treatment of contacts, and disease surveillance. As resources become more limited, it will become increasingly more important to direct any screening performed toward those populations where the yield and benefit is likely to be greatest. Only screening programs that target specific high-risk populations and that include not only an initial evaluation for infection but also a specific plan to assure completion of treatment should be undertaken.

Local health districts vary in their ability to offer targeted testing and screening services. At a minimum, all districts must ensure the appropriate screening and testing of contacts to potentially infectious TB cases and TB-classified immigrants and refugees, the highest priorities for targeted screening efforts.

**BRIEF BACKGROUND:** The primary goal for any screening and testing program for latent TB infection (TBI) is the successful treatment of those found to be infected. Case management is the preferred strategy for coordinating client care to ensure that the client is educated about TB infection and its treatment and completes 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 involved in the management of screening, testing, and treatment programs for clients with tuberculosis infection, 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), Division of Disease Prevention, TB Control and Prevention program (DDP-tb).

**PROCEDURE/DIRECTIVE:**

***Screening for TB Infection***

* All individuals screened for TB infection (TBI) should have a risk assessment completed using the current TB Risk Assessment form (TB512) or similar form to determine the need for a test for TB infection, either a tuberculin skin test (TST) or an InterFeron Gamma Release Assay (IGRA) blood test such as the T-Spot-TB or Quantiferon TB Gold-in-Tube (QFT-GIT). See VDH DDP-tb policy on Screening for Infection and Disease. Available from: http://www.vdh.virginia.gov/TB/Policies/screening.htm
* Only those individuals with a risk for progression to active disease once infected, risk for acquiring TB infection, or needing baseline testing for an locally approved infection control program will be offered a test for TBI by VDH.
* Follow CDC, VDH, and local district guidelines for the administration, reading and interpretation of tuberculin skin tests.
* According to the Code of Virginia, only prescribers, registered nurses, and licensed practical nurses under the direct supervision of a registered nurse may administer and interpret a TST.
* The tasks of palpating and measuring any reaction to the TST may be delegated to non-licensed personnel. Non-licensed personnel may not make a determination of the significance of any reaction to a TST, e.g., positive versus negative

***Required Evaluation to Determine TBI versus Active Disease***

* All individuals found to have a new positive TST or IGRA should be evaluated to rule out the presence of active disease. A review of TB signs and symptoms, past exposure history and a chest x-ray (CXR) should be performed. Per current VDH Eligibility Guidelines, this evaluation and x-ray should be at no charge to the client.
* Collection of sputum is recommended if CXR shows abnormalities consistent with active tuberculosis or if the client is symptomatic and able to produce sputa. If necessary, sputum induction should be attempted if the client is unable to produce a sample.
* If bacteriology samples are collected for any individual screened, treatment for TBI should be deferred until final culture results are received and active disease is ruled out. As appropriate, an individual may be started on multiple anti-TB drugs as a TB suspect prior to receipt of culture results.

***Management of Individuals with TB Infection***

* All individuals with latent TB infection should be offered treatment for TBI according to guidelines found in MMWRs “Targeted Testing and Treatment of Latent TB Infection” or “Recommendations for Use of an Isoniazid–Rifapentine Regimen with Direct Observation to Treat Latent *Mycobacterium tuberculosis* Infection.”
* All individuals initiating treatment should be provided with client education regarding possible side effects and adverse reactions to the treatment regimen selected. Clients should be informed regarding steps to take such as calling the local health department/PHN or holding medications should problems arise.
* All individuals undergoing treatment for latent TBI should receive a monthly clinical assessment by a licensed staff member, i.e., RN, MD, etc.
* Monitor for adverse reactions and document any reported reactions in the client record.
* Report any adverse reactions to the clinician within one (1) business day.
* Assure medications are held until the clinician has been contacted according to local protocol.
* Follow guidelines in MMWR “Targeted Testing and Treatment of Latent Tuberculosis Infection” and district protocol for blood work frequency.
* Rarely, ethambutol or other drugs might be used to treat clients with latent TBI who are contacts to active cases with drug resistant disease.
* If ethambutol or other drug is used that might impair the vision, baseline and monthly visual acuity and color vision screening should be done while the client is on the drug. Vision screening can be stopped once ethambutol or other drug that impairs vision is discontinued.
	+ All changes in results from previous screening should be reported to the clinician within one business day.
	+ If clients are started on medications that might impair vision prior to the local health district becoming aware of the cli**e**nt, baseline screening should occur at the first health department encounter and before any continued treatment is initiated by the local health district.
* Individuals with a past positive TST or IGRA do not need additional follow-up or a chest x-ray unless they are symptomatic. If the individual has not completed treatment for TBI, this can be considered if the individual is interested. If a CXR result within the last three (3) months is not available, a new CXR would need to be obtained before treatment for TBI is initiated

***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 DDP-tb guidelines for Use of the TB Case Management record. Case records and records for suspects on a trial course of treatment for presumed active disease should be filed in a 6-prong folder. A folder with fewer sections may be used for other records.
* Forms, test results, and other medical records should be filed in the client record according to agency or local health district guidelines for assembling client records.
* A case management record is needed for:
* All cases and suspects regardless of source of care
* All clients who meet one or more of the following criteria
* Referred for chest x-ray
* Sputum collected
* Identified as a suspect or active case of TB disease regardless of the source of medical care.
* Recommended for treatment for TBI as a contact to an active case regardless of the source of medical care.
* Recommended for treatment for TBI 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 prong folder adjacent to the client record. The folder should be labeled “Contacts of [*Case Name*].”
* Individual client Risk Assessment for 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.

**EVIDENCE BASE:**

*Code of Virginia* (§ 54.1-3408 G.) Professional Use by Practitioners. Retrieved from:

 <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+54.1-3408>

Controlling Tuberculosis in the United States. Centers for Disease Control and Prevention. MMWR 2005; 54(No. RR-12). Retrieved from:

 <http://www.cdc.gov/mmwr/PDF/rr/rr5412.pdf>

Essential Components of a Tuberculosis Prevention Program, MMWR Vol. 44 # RR-11, September 8, 1995. Retrieved from:

 <http://www.cdc.gov/mmwr/PDF/rr/rr4411.pdf>

Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis. Centers for Disease Control and Prevention. MMWR 2005; 54(No. RR-15). Retrieved from:

 <http://www.cdc.gov/mmwr/pdf/rr/rr5415.pdf>

Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005. Centers for Disease Control and Prevention. MMWR 2005:54(No. RR-17). Retrieved from:

 <http://www.cdc.gov/mmwr/pdf/rr/rr5417.pdf>

Prevention and Control of Tuberculosis in Correctional and Detention Facilities: Recommendations from the CDC. Centers for Disease Control and Prevention. MMWR 2006; 55(No. RR-9). Retrieved from:

 <http://www.cdc.gov/mmwr/PDF/rr/rr5509.pdf>

[Recommendations for Use of an Isoniazid–Rifapentine Regimen with Direct Observation to Treat Latent *Mycobacterium tuberculosis* Infection](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6048a3.htm?s_cid=mm6048a3_w). MMWR 2011 60 (1650–1653). Retrieved from: <http://www.cdc.gov/mmwr/pdf/wk/mm6048.pdf>Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection. Centers for Disease Control and Prevention. MMWR 2000; 49(No. RR-6). Retrieved from: <http://www.cdc.gov/mmwr/PDF/rr/rr4906.pdf>

Virginia Department of Health. (2012) *Guidelines for the Use of Isoniazid/Rifapentine for Treatment of Latent TB Infection in Health Department Settings*. Virginia Department of Health: Division of Disease Prevention. Available at: <http://www.vdh.virginia.gov/TB/documents/VDHGuidelines_INHRifapentine_100112_002.pdf>

Virginia Department of Health. (2011). *Guidelines for Tuberculosis Records and For Use.* Virginia Department of Health: Division of Disease Prevention. Available at:

 <http://www.vdh.virginia.gov/TB/Forms/documents/GuidelinesforTBRecordsandFormUse060811.pdf>

Virginia Department of Health. (2013) *Policy on Screening for Infection and Disease*. Virginia Department of Health: Division of Disease Prevention. Available at:

 <http://www.vdh.virginia.gov/TB/Policies/screening.htm>

Virginia Department of Health. (2005). *Tuberculosis Service Plan.* Virginia Department of Health: Division of Disease Prevention. Available at:

 <http://www.vdh.virginia.gov/TB/ResourcesforLHDinVA.htm#forms>

**Electronic File Location: C:\Documents and Settings\jwakeham\My Documents\nursdirectives\_TBI\_093008.doc**

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