

Virginia Tuberculosis (TB) Risk Assessment for Children Under 6 Years Old

First screen for TB Symptoms: None (If no TB symptoms present → Continue with this tool)

Cough Fever Wheezing Poor Appetite Failure to Thrive (trouble gaining weight)

Decreased Activity/Playfulness/Energy Lymph Node Swelling (neck, groin, armpit) Personality Changes

If TB symptoms present → Evaluate for active TB disease

Use this tool to identify asymptomatic **children under 6 years old** for latent TB infection (LTBI) testing

- Re-testing should only be done in persons who previously tested negative and have new risk factors since the last assessment. If initial negative screening test occurred prior to 6 months of age, repeat testing should occur at age 6 months or older
- A negative Tuberculin Skin Test (TST) or Interferon Gamma Release Assay (IGRA) does not rule out active TB disease

Check appropriate risk factor boxes below.

TB infection testing is recommended if any of the risks below are checked.

If TB infection test result is positive and active TB disease is ruled out, TB infection treatment is recommended.

Birth, travel, or residence in a country with an elevated TB rate for ≥ 3 months

- Includes countries other than the United States (US), Canada, Australia, New Zealand, or Western and North European countries
- IGRA is preferred over TST for non-US-born persons ≥ 2 years old
- Clinicians may make individual decisions based on the information supplied during the evaluation. Individuals who have traveled to TB-endemic countries for the purpose of medical or health tourism for < 3 months may be considered for further screening based on the risk estimated during the evaluation.

Parent, guardian, or caretaker from a country with an elevated TB rate

Medical conditions increasing risk for progression to TB disease

Radiographic evidence of prior healed TB, low body weight (10% below ideal), silicosis, diabetes mellitus, chronic renal failure or on hemodialysis, gastrectomy, jejunioileal bypass, solid organ transplant, head and neck cancer

Immunosuppression, current or planned

HIV infection, injection drug use, organ transplant recipient, treatment with TNF-alpha antagonist (e.g., infliximab, etanercept, others), steroids (equivalent of prednisone ≥ 2 mg/kg/day, or ≥ 15 mg/day for ≥ 2 weeks) or other immunosuppressive medication

Close contact to someone with infectious TB disease at any time

None; no TB testing indicated at this time

Patient Name _____

Provider Name _____

Date of Birth _____

Assessment Date _____

Guardian Name _____

Virginia Tuberculosis Risk Assessment User Guide

Avoid testing persons at low risk

Routine testing of low-risk populations is not recommended and may result in unnecessary evaluations and treatment because of falsely positive test results.

Virginia Department of Health recommendations

This risk assessment has been customized according to the Virginia Department of Health's TB Program recommendations. Providers should check with local TB control programs, or the VDH TB Program at (804) 864-7906 for local recommendations.

Mandated testing and other risk factors

Several risk factors for TB that have been used to select children for TB screening historically or in mandated programs are not included among the components of this risk assessment. This is purposeful in order to focus testing on children at highest risk. However, certain populations may be mandated for testing by statute, regulation, or policy. This risk assessment does not supersede any mandated testing. Testing can also be considered in children with frequent exposure to adults at high risk of TB infection, such as those with extensive foreign travel to areas with high TB rates.

When to repeat a risk assessment and testing

Risk assessments should be completed on new patients, patients thought to have new potential exposures to TB since last assessment, and during routine pediatric well-child visits. Repeat risk assessments should be based on the activities and risk factors specific to the child. High-risk children who volunteer or work in healthcare settings might require annual testing and should be considered separately. Re-testing should only be done in persons who previously tested negative and have new risk factors since the last assessment (unless they were <6 months of age at the time of testing). In general, new risk factors would include new close contact with an infectious TB case or new immunosuppression, but could also include foreign travel.

Foreign travel

Travel to countries with an elevated TB rate may be a risk for TB exposure in certain circumstances (e.g., extended duration, likely contact with persons with infectious TB, high prevalence of TB in travel location, non-tourist travel). The duration of at least 3 consecutive months to trigger testing is intended to identify travel most likely to involve TB exposure. TB screening tests can be falsely negative within the 8-10 weeks after exposure, so are best obtained 8-10 weeks after return from travel. A list with countries with an elevated TB rate can be found here: <http://www.vdh.virginia.gov/tuberculosis-and-newcomer-health/screening-testing/>

IGRA preference in non-US born children ≥2 years old

Because IGRA has increased specificity for TB infection in children vaccinated with BCG, IGRA is preferred over the tuberculin skin test for non-US-born children ≥2 years of age. IGRAs can be used in children <2 years of age, however, there is an overall lack of data in this age group, which complicates interpretation of test results. In BCG-vaccinated, immunocompetent children with a positive TST, it may be appropriate to confirm a positive TST with an IGRA. If IGRA is not done, the TST result should be considered the definitive result.

Negative test for TB infection does not rule out active TB disease

It is important to remember that a negative TST or IGRA result does not rule out active TB disease. In fact, a negative TST or IGRA in a patient with active TB disease can be a sign of extensive disease. Any suspicion for active TB disease or extensive exposure to TB should prompt an evaluation for active TB disease, including physical exam, symptom review, and a 2-view chest x-ray.

Emphasis on short course for treatment of TB infection

Shorter regimens for treating TB infection have been shown to be as effective as 9 months of isoniazid, and are more likely to be completed. Use of these shorter regimens is preferred in most patients, although the 12-week regimen is not recommended for children <2 years of age, children on antiretroviral medications, or pregnant adolescents. Drug-drug interactions and contact to drug-resistant TB are typical reasons these regimens cannot be used.

| Medication | Frequency | Duration |
|----------------------------|-----------|------------|
| Rifampin | Daily | 4 months |
| Isoniazid+ Rifapentine* | Weekly | 12 weeks** |

*VDH recommends Directly Observed Therapy (DOT)

**11-12 doses in 16 weeks required for completion

Patient refusal of TB infection treatment

Refusal should be documented. Recommendations for treatment should be made at future encounters with medical services. If treatment is later accepted, TB disease should be excluded and CXR repeated if it has been > 3 months from the initial evaluation.

Symptoms that should trigger evaluation for active TB disease

Patients with any of the following symptoms that are otherwise unexplained should be evaluated for active TB disease: cough for more than 2-3 weeks, fevers, night sweats, weight loss, lymphadenopathy, hemoptysis or excessive fatigue.