

Los Angeles County Pediatric TB 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.

Los Angeles County 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 4 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 in areas with high TB rates.

Decision to test is a decision to treat

Because testing of persons at low risk of TB infection should not be done, persons that test positive for TB infection should generally be treated once active TB disease has been ruled out with a physical exam, chest radiograph and, if indicated, sputum smears, cultures, and nucleic acid amplification testing (NAAT). However, clinicians should not be compelled to treat low risk persons with a positive test for TB infection, and may consult with a local TB expert.

When to repeat a risk assessment and testing

Risk assessments should be completed on new patients, persons 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 health care 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 a person with active TB disease or new immunosuppression, but could also include foreign travel.

Immunosuppression

The exact level of immunosuppression that predisposes to increased risk for TB progression is unknown. The threshold of steroid dose and duration used here are based on data in adults and in accordance with ACIP recommendations for live vaccines in children receiving immunosuppression.

Foreign travel or residence

Travel or residence in countries with an elevated TB rate may be a risk for TB exposure in certain circumstances (e.g., extended duration, likely exposed to a person with active TB disease, high TB prevalence of TB in travel location, non-tourist travel). The duration of at least 1 consecutive month to trigger testing is intended to identify travel most likely to involve TB exposure. TB screening tests can be falsely negative within the 8 weeks after exposure, so are best obtained 8 weeks after a child's return.

IGRA preference in non-U.S. 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-U.S. 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

It is important to remember that a negative TST or IGRA result does not rule out active TB. A negative TST or IGRA in a patient with active TB can be a sign of extensive disease. Any suspicion for active TB or extensive exposure to TB should prompt an evaluation for active TB disease.

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 exposure to drug resistant TB are other contra-indications for shorter regimens.

Medication	Frequency	Duration
Rifampin	Daily	4 months
Isoniazid + rifapentine*	Weekly	12 weeks**

*The CDC currently recommends DOT for this regimen; however, preliminary data suggests that SAT is not inferior to DOT in the United States. Many clinicians are using SAT or modified DOT.

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

LA County 3HP Fact Sheet: available on the LA County TBCP website: <http://publichealth.lacounty.gov/tb>

Refusal of recommended TB Infection treatment

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

Symptoms that should trigger evaluation for active TB

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

ACIP= Advisory Committee on Immunization Practices; IGRA= Interferon gamma release assay (e.g., QuantiFERON-TB Gold, T-SPOT.TB); BCG=Bacillus Calmette-Guérin; TST= tuberculin skin test; DOT=Directly observed therapy; CXR=chest x-ray

Adapted from the California Tuberculosis Risk Assessment available on the PROVIDERS page at www.ctca.org

