Latent Tuberculosis Infection Screening, Diagnosis and Treatment Guide

NYC Health

Recommendations and Questions

This tool helps you identify asymptomatic adults and children at risk for tuberculosis (TB) infection.
Do not repeat testing unless there are new risk factors since the last TB test.
Do not treat for latent TB infection (LTBI) until active TB disease has been excluded.[1]

Testing for LTBI is recommended if your patient answers yes to any of the following questions.

☑ Have you lived with or spent time with anyone who had or may have had TB?

- In addition to testing for LTBI, notify the New York City Department of Health and Mental Hygiene (NYC Health Department) if your patient has had close contact with anyone with active TB disease. Call the NYC Health Department's **TB Hotline** at **844-713-0559, available Monday to Friday, 9 a.m. to 5 p.m.**

☑ Are you living with HIV, cancer or an immune disorder?

- Immunosuppression includes the following: HIV infection, cancer, prolonged corticosteroid use (equivalent to 15 milligrams/day or more of prednisone for one month or more), other immunosuppressive treatments (for example, TNF-α antagonists, JAK Inhibitors, IL-1 receptor antagonists, chemotherapy, organ transplant medications).

☑ Were you born in, or have you traveled to or lived in (for more than 30 days in a row), a high TB incidence area, such as Africa, Asia, Mexico, Central or South America, the Caribbean, or Eastern Europe?

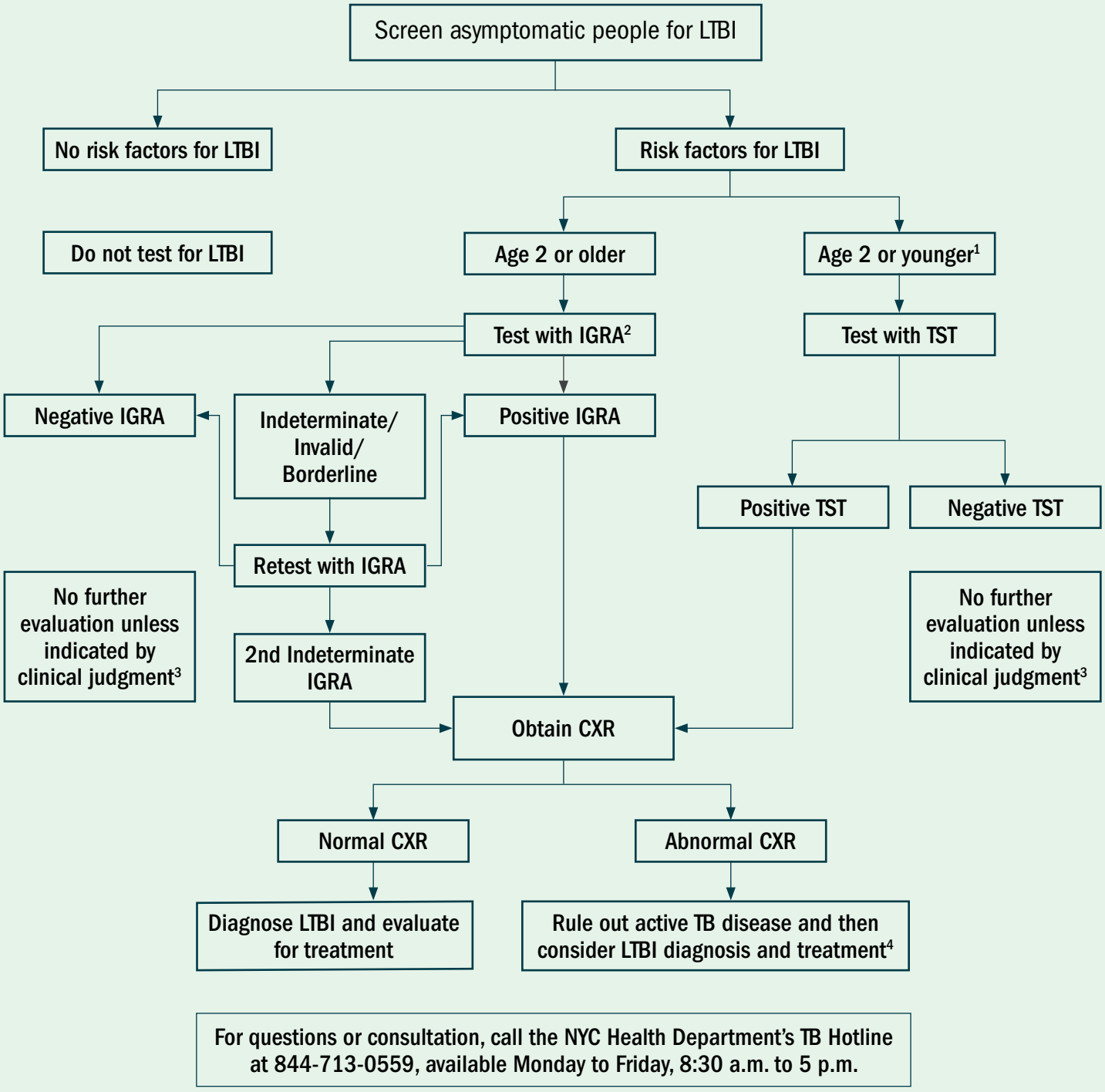
- If your patient was born outside of the U.S. in a high TB incidence area —or— traveled or lived outside the U.S. for 30 days in a row or more in a high TB incidence area, they may be at greater risk of infection.

If the TB test result is positive and active TB disease is ruled out,[1] treatment for LTBI is recommended.

We have observed TB and COVID-19 co-infection in NYC. We strongly recommend that health care providers consider active TB disease if patients show TB symptoms (such as a cough that lasts longer than two weeks, unintentional weight loss or hemoptysis), regardless of SARS-CoV-2 diagnostic test results.

1. Evaluate, by medical history and physical examination, all people with TB symptoms, positive TB test results or abnormal chest radiographs (CXRs) consistent with active TB disease. Following NYC Health Code Article 11, report all people with presumptive or confirmed active TB disease and children younger than 5 years of age diagnosed with LTBI to the NYC Health Department. For more information, visit **nyc.gov/health/tb**.

Testing Algorithm for LTBI



1. Interferon Gamma Release Assays (IGRAs) are preferred for people age 2 and older, particularly those who have previously received the Bacille Calmette-Guérin (BCG) vaccine since IGRAs do not cross-react with BCG. Some experts recommend using IGRAs for people of all ages.
2. IGRA results may be indeterminate and may need to be repeated. When IGRA result is negative, no further evaluation is needed unless indicated by clinical judgement (for example, clinical suspicion of active TB disease, immunosuppression, a new TB risk factor, the person lives or works in high-risk setting). See footnote 3.
3. For example, evaluate if there is clinical suspicion of active TB disease, immunosuppression, new TB risk factors or exposure to high-risk settings.
4. If there are no symptoms of TB disease and chest X-ray and other diagnostic tests are negative for active TB (such as sputum), diagnose LTBI and evaluate for treatment.

Treatment for LTBI*

Regimen	Interval, Duration and Completion Criteria	Dosage	This Regimen
Rifampin (RIF)	Daily for four months **Completion:** 120 doses within six months	*Adults*: 10 milligrams per kilogram (mg/kg) (600 mg maximum) *Children*: 15 to 20 mg/kg (600 mg maximum)	• **Preferred for people of all ages** • **May be used in people living with HIV not on antiretroviral therapy (ART)† or are taking ART with acceptable drug-drug interactions with RIF** **Not recommended for:** People with a history of severe RIF-induced reaction; people living with HIV who are taking certain ART (for example, most protease inhibitors [PI], non-nucleoside reverse transcriptase inhibitors [NNRTI], integrase strand transfer inhibitors [INSTI], and tenofovir alafenamide fumarate [TAF]-containing regimens); people exposed to RIF-resistant TB.
Isoniazid (INH)/ Rifapentine (RPT)	Weekly for 12 weeks **Completion:** 12 scheduled doses within a 16-week period	**INH** *Age 2 to 11 years*: 25 mg/kg rounded up to the nearest 50 or 100 mg (900 mg maximum) *Age 12 years and older*: 15 mg/kg rounded up to nearest 50 or 100 mg (900 mg maximum) **RPT** • 10.0 to 14.0 kg: 300 mg • 14.1 to 25.0 kg: 450 mg • 25.1 to 32.0 kg: 600 mg • 32.1 to 49.9 kg: 750 mg ≥ 50.0 kg: 900 mg max	• **Preferred for people age 2 years and older** • **May be used in people living with HIV who are not receiving ART or are taking ART with acceptable drug-drug interactions with RPT** **Not recommended for:** People with a history of severe RIF-, RPT- or INH- induced reaction; people who are pregnant or breastfeeding (due to RPT); people living with HIV who are taking certain ART† (for example, most PIs, NNRTIs, INSTIs, and TAF-containing regimens) (due to RPT); people exposed to INH or RIF-resistant TB.
Isoniazid‡ (INH)	Daily for six months **Completion:** 180 doses within 9 months Daily for nine months **Completion:** 270 doses within 12 months	*Adults*: 5 mg/kg (300 mg maximum) *Children*: 10 to 20 mg/kg (300 mg maximum)	• **No longer a preferred regimen because of its long treatment duration** • **May be used for people of all ages** • **May be used if RIF or RPT are contraindicated** **Not recommended for:** People with a history of severe INH-induced reaction (for example, hepatic, skin or allergic reaction) or neuropathy; people exposed to INH-resistant TB.

*See the Guide to Prescribing Treatment for Latent Tuberculosis Infection for additional information.

†Visit **aidsinfo.nih.gov** for more information.

‡Biweekly INH dosing, as Directly Observed Therapy, is available but not preferred.

LTBI Tools and Resources for Providers

- Talking About Latent Tuberculosis Infection With Your Patients: A Guide for Providers
- My Latent Tuberculosis Infection Medicine Tracker
- Common Questions About Isoniazid and Rifapentine
- Common Questions About Rifampin
- To view **LTBI: A Guide for Primary Health Care Providers**, visit **cdc.gov** and search for **LTBI**.
- People with diabetes and who have LTBI are more likely to progress to active TB disease. For counseling information on diabetes, visit **nyc.gov/health** and search for **diabetes coaching guide**.
- People who smoke and who have LTBI are more likely to progress to active TB disease. For counseling information on smoking, visit **nyc.gov/health** and search for **quit smoking coaching guide**.
- We Are TB is a patient TB advocacy organization. For more information, visit **wearetb.com**.
- For expert medical consultation or assistance with reporting or referrals for no-cost care at the NYC Health Department Chest Centers, call the TB Provider Hotline at 844-713-0559. Patients who need health insurance can call **311** for assistance.

How to Report a Case of Tuberculosis

All patients, alive or deceased, with presumptive or confirmed active TB disease must be reported to the NYC Health Department within 24 hours of diagnosis or clinical suspicion, as required by the NYC Health Code §§11.03 and 11.05. Health care providers must report these patients, in addition to microbiologists and pathologists.

Submitting the Report

Reports must be submitted either electronically or via fax using the Universal Reporting Form (URF). **Note: NYC providers are encouraged to submit electronically through their NYCMED account.**

- To download a URF, visit **nyc.gov/health** and search for **URF**.
- To create a NYCMED account, visit **nyc.gov/nycmed**.
- To fax a URF to the NYC Health Department's Bureau of TB Control, fax to 844-713-0557.

For more information, visit **nyc.gov/health** and search for **TB reporting requirements**, or call **311** and ask for the Bureau of TB Control Surveillance Unit.

Do not delay reporting pending identification of *M. tuberculosis* with a nucleic acid amplification (NAA) test or culture. Report active TB disease whenever suspected, even if bacteriologic evidence of active TB disease is lacking or treatment has not been initiated.

See the fact sheet titled "How to Report Active Tuberculosis Disease and Latent TB Infection" in the LTBI action kit for additional information.

Reporting LTBI in children age 5 years or younger

- Report any child age 5 years or younger with a positive TST or IGRA result, as well as subsequent evaluation to rule out active TB disease, regardless of whether the child has previously received a BCG vaccination.
- Include quantitative and qualitative results from blood-based IGRA tests or induration (millimeters) for TSTs, as well as related chest imaging results and any preventive medication initiated for LTBI.

Civil surgeons[§] are required by the Centers for Disease Control and Prevention to report patients diagnosed with LTBI to health departments.

- Use IGRA instead of TST in all patients age 2 years and older to test for TB infection. Report all patients diagnosed with LTBI to the local health department of jurisdiction, based on patient's residence.
- Include all IGRAs and documentation of positive IGRA or TST, chest radiography and other diagnostic results to rule out active TB disease.
  - All IGRAs and chest X-rays ordered by civil surgeons must be performed independently from a health department.

[§]The U.S. Citizenship and Immigration Services designates certain doctors (civil surgeons) to perform the medical exam required for most Green Card applicants.

For more information and additional resources, visit **nyc.gov/health/tb**.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