

RECOMMENDED DRUG REGIMENS FOR TREATMENT OF LTBI					
Drug	Interval and Duration	Adult Dosage (max)	Pediatric Dosage (max)	Criteria for Completion	Comments
INH	Daily for 9 mos.	5 mg/kg (300 mg)	10-20 mg/kg (300 mg)	270 doses within 12 mos.	Completion of 9 month regimen is 90% effective in HIV-infected persons exposed to INH-resistant TB
	Twice-weekly for 9 mos.	15mg/kg (900 mg)	20-30 mg/kg (900 mg)	76 doses within 12 mos.	In HIV-infected persons, INH may be administered concurrently with NRTIs, protease inhibitors, or NNRTIs
INH	Daily for 6 mos.	5 mg/kg (300 mg)	180 doses within 9 mos.	Completion of 6 month regimen is 70% effective INH-resistant TB	Not indicated for persons with HIV infection or fibrotic lesions, or for children, or for persons exposed to
	Twice-weekly for 6 mos.	15mg/kg (900 mg)	52 doses within 9 mos.	Completion of 6 month regimen is 70% effective	• DOT must be used with twice-weekly dosing
RIF	Daily for 4 mos.	RIF 10 mg/kg (600 mg)	120 doses within 6 mos.	For contacts of patients with INH-resistant, RIF-susceptible TB or when shorter course treatment is preferred	In HIV-infected persons, protease inhibitors or NNRTIs should not be administered concurrently with RIF, an alternative is rifabutin 300 mg daily
	Daily for at least 6 mos.	10-20 mg/kg (600 mg)	180 doses within 9 mos.		

Abbreviations: INH = isoniazid, RIF = rifampin, NRTIs = nucleoside reverse transcriptase inhibitors, NNRTIs = non-nucleoside reverse transcriptase inhibitors, DOT = directly observed therapy, mos. = months

MDR-TB exposure: Consult expert. Decision to treat must consider likelihood of recent infection with MDR-TB strain, likelihood of developing TB diseases, effective alternative regimen, monitoring, and follow-up.

MONITORING OF PATIENTS ON TREATMENT FOR LTBI

For all patients:

- Initial clinical evaluation, including radiologic studies to rule out active TB
- Consider possible rifamycin-associated drug interactions, e.g., oral contraceptives, antiretrovirals, methadone, oral hypoglycemics, and anticoagulants
- Pyridoxine (B₆) supplements are also recommended for pregnant and breast feeding women, breast-feeding infants, children and adolescents on milk- and meat-deficient diets, children who experience paresthesias while taking INH, and those with HIV infection
- Educate patients and caregivers about importance of good adherence. Also emphasize possible side effects and adverse reactions associated with LTBI treatment. Advise to stop treatment and promptly seek medical evaluation if these occur. Ensure effective communication by having clients explain what they understand back to you. If language is a barrier use a trained interpreter
- Follow-up evaluations at least monthly. These should include careful questioning about adherence and side effects, and a physical examination checking for evidence of hepatitis or other adverse reactions
- If side effects occur, a prompt physician's evaluation is necessary and change in treatment as indicated
- Routine monthly monitoring of liver function tests (LFTs) not generally indicated, except in the following circumstances:
 - Abnormal LFT at baseline
 - Chronic liver disease
 - HIV infection
 - Risk for hepatic disease, including other potentially hepatotoxic drugs (e.g., anti-convulsants or over-the-counter drugs, e.g., acetaminophen)
 - Regular alcohol use
 - Pregnancy or immediate postpartum

Medication should be withheld and patients evaluated if:

- Transaminase levels >3 times upper limit of normal in presence of symptoms
- Transaminase levels >5 times upper limit of normal in asymptomatic patient


Pediatrics: If children taking LTBI treatment develop hepatitis, seek other causes. Discontinue LTBI treatment in cases of symptomatic hepatitis, noting transaminase levels stated above

In all patients, therapy may be resumed when LFTs are normal, if appropriate

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CANDIDATES FOR TREATMENT OF LATENT TUBERCULOSIS INFECTION (LTBI)


Only test persons at high risk for tuberculosis infection — Support adherence to ensure successful prevention					
CATEGORY OF PERSON TESTED					
TST < 5 mm	TST ≥ 5 mm	TST ≥ 10 mm	TST ≥ 15 mm	IGRA+	IGRA+
TREAT	TREAT	TREAT	TREAT	TREAT	TREAT
Do Not Treat	Do Not Treat	TREAT	TREAT	TREAT	TREAT
Do Not Treat	Do Not Treat	Do Not Treat	TREAT	TREAT	TREAT
Do Not Treat	Do Not Treat	Do Not Treat	Do Not Treat	TREAT	TREAT
No risk factors (testing discouraged)	Persons < 8 years exposed to high-risk adults	Child < 4 years	High-risk clinical conditions†	Mycobacteria lab personnel	Resident/Employee institutional settings§
	Infection drug user	Recent arrival from endemic country			
	Contact of TB case (not immunosuppressed)	Fibrotic changes on chest X-ray (adults)			
	Immunosuppressed persons	HIV-infected			
	Contacts who are: children < 5 years and HIV-infected or otherwise immunosuppressed persons*				



TB

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Diagnosis and Treatment of Latent Tuberculosis Infection (LTBI)

- Use a tuberculin skin test (TST) or an interferon gamma release assay (IGRA) to detect LTBI
- A decision to test is a decision to treat if LTBI is confirmed
- Treat LTBI – it benefits the individual and the community

Based on the *Targeted Testing and Treatment of Latent Tuberculosis Infection*, 2000 Official Joint Statement of the American Thoracic Society and Centers for Disease Control & Prevention and *Red Book: 2006 Report of the Committee on Infectious Diseases* from the American Academy of Pediatrics

* Contacts should receive a TST or IGRA immediately. Even if TST or IGRA is negative, high-risk groups should be treated and tested again 8-10 weeks after last exposure to TB case. Treatment can be discontinued in a healthy child if second test is negative.

† TST Conversion: An increase in reaction size of ≥ 10 mm within 2 years should be considered a TST conversion indicative of recent infection with *M. tb.* Siltosis, diabetes mellitus, chronic renal failure, some hematologic disorders (e.g., leukemias and lymphomas), other specific malignancies (e.g., carcinoma of the head and neck or lung), weight loss of ≥ 10% of ideal body weight, gastrectomy, and splenectomy.

‡ History of BCG Vaccination: Disregard history of BCG vaccination when testing and treating for LTBI. A positive TST result indicates need to treat LTBI. IGRA: Guidelines for using IGRA to detect LTBI are currently being established. FDA has approved use of QuantiFERON®-TB Gold and T-SPOT®.TB. For updated information see www.cdc.gov/tb/pubs/mmwr/mol_guide.htm