

Table 5. First-Line Anti-TB Medications

Drug	Route	Dose in mg/kg (Maximum Dose)						Adverse Reactions	Monitoring	Comments
		Daily		2 Times/Week*		3 Times/Week*				
		Children	Adults	Children	Adults	Children	Adults			
INH	PO or IM	10 - 20 (300 mg)	5 (300 mg)	20 - 40 (900 mg)	15 (900 mg)	20 - 40 (900 mg)	15 (900 mg)	Rash Hepatic enzyme elevation Hepatitis Peripheral neuropathy Mild CNS effects Drug interactions resulting in increased phenytoin (Dilantin) or disulfiram (Antabuse) levels	Baseline measurements of hepatic enzymes for adults Repeat measurements if - baseline results are abnormal - patient is at high risk for adverse reactions - patient has symptoms of adverse reactions	Hepatitis risk increases with age and alcohol consumption Pyridoxine (Vitamin B ₆) may prevent peripheral neuropathy and CNS effects 10-15 mg/kg should be used for children when treating for latent TB infection
RIF	PO or IV	10 - 20 (600 mg)	10 (600 mg)	10 - 20 (600 mg)	10 (600 mg)	10 - 20 (600 mg)	10 (600 mg)	GI upset Drug interactions Hepatitis Bleeding problems Flu-like symptoms Rash Renal failure Fever	Baseline measurements of CBC, platelets, and hepatic enzymes Repeat measurements if - baseline results are abnormal - patient has symptoms of adverse reactions	Significant interactions with methadone, birth control hormones, and many other drugs Contraindicated or should be used with caution when administered with PIs and NNRTIs Colors body fluids orange May permanently discolor soft contact lenses
RFB ¹	PO or IV	10-20 (300 mg) or (150 mg) [§] or (450 mg) [¶]	5 (300 mg) or (150 mg) [§] or (450 mg) [¶]	10 - 20 (300 mg) or 10 - 20 (300 mg) or (450 mg) [¶]	5 (300 mg) or 5 [§] (300 mg) or (450 mg) [¶]	Not Known Not Known Not Known Not Known	Not Known Not Known Not Known	Rash Hepatitis Fever Thrombocytopenia With increased levels of RFB: - Severe arthralgias - Uveitis - Leukopenia	Baseline measurements of CBC, platelets, and hepatic enzymes Repeat measurements if - baseline results are abnormal - patient has symptoms of adverse reactions Use adjusted daily dose of RFB [§] , and monitor for decreased antiretroviral activity and for RFB toxicity if RFB taken concurrently with PIs or NNRTIs	Reduces levels of many drugs (e.g., PIs, NNRTIs, methadone, dapsone, ketoconazole, hormonal contraceptives, etc.) Colors body fluids orange May permanently discolor soft contact lenses
PZA	PO	15 - 20 (2 g)	15 - 30 (2 g)	50 - 70 (4 g)	50 - 70 (4 g)	50 - 70 (3 g)	50 - 70 (3 g)	Hepatitis Rash GI upset Joint aches Hyperuricemia Gout (rare)	Baseline measurements of uric acid and hepatic enzymes Repeat measurements if - baseline results are abnormal - patient has symptoms of adverse reactions	Treat hyperuricemia only if patient has symptoms May make glucose control more difficult in diabetics
EMB ⁴	PO	15 - 25	15 - 25	50	50	25 - 30	25 - 30	Optic neuritis Rash	Baseline and monthly tests of visual acuity and color vision	Not recommended for children too young to be monitored for changes in vision unless TB is drug resistant Optic neuritis may be unilateral, check each eye separately
SM	IM or IV	20 - 40 (1 g)	15 (1 g)	25 - 30 (1.5 g)	25 - 30 (1.5 g)	25 - 30 (1.5 g)	25 - 30 (1.5 g)	Ototoxicity (hearing loss or vestibular dysfunction) Renal toxicity	Baseline and repeat as needed of hearing and renal function tests	Ultrasound and warm compresses to injection site may reduce pain Avoid or reduce dose in adults ≥60 years old

INH - isoniazid, RIF - rifampin, RFB - rifabutin, PZA - pyrazinamide, EMB - ethambutol, SM - streptomycin, PIs - Protease Inhibitors, NNRTIs - nonnucleoside reverse transcriptase inhibitors
PO - by mouth, IM - intramuscular, IV - intravenous, CNS - central nervous system

Notes: Consult product insert for detailed information.
Children ≤ 12 years old.
Adjust weight-based dosages as weight changes.

*All intermittent dosing should be used with directly observed therapy.

¹The concurrent administration of rifabutin is contraindicated with hard-gel saquinavir and delavirdine. An alternative is the use of rifabutin with indinavir, nelfinavir, amprenavir, ritonavir, efavirenz, and possibly soft-gel saquinavir and nevirapine. Caution is advised when using

rifabutin with soft-gel saquinavir and nevirapine, because data regarding the use of rifabutin with soft-gel saquinavir and nevirapine are limited.

[§]If nelfinavir, indinavir, amprenavir, or ritonavir is administered with RFB, blood concentrations of the PIs decrease. Thus, when RFB is used concurrently with any of these drugs, the daily dose of RFB is reduced from 300 mg to 150 mg when used with nelfinavir, indinavir, or amprenavir; and to 150 mg two or three times a week when used with ritonavir.

[¶]If efavirenz is administered with RFB, blood concentrations of RFB decrease. Thus, when RFB is used with efavirenz, the daily dose of RFB should be increased from 300 mg to 450 mg or 600 mg.

* No maximum dosages for EMB but in obese patients dosage should be calculated on lean body weight.