

**Table 6. Second-Line Anti-TB Medications**

Drug	Route	Daily Dose** (Maximum Dose)	Adverse reactions	Monitoring	Comments
Capreomycin	IM or IV	15 - 30 mg/kg (1 g)	Toxicity - auditory - vestibular - renal	Assess vestibular function and hearing function prior to initiation of therapy and at regular intervals during treatment  Measure blood urea nitrogen and creatinine throughout treatment	After bacteriologic conversion, dosage may be reduced to 2 -3 times per week  Safety and effectiveness in children have not been established
Kanamycin	IM or IV	15 - 30 mg/kg (1 g)	Toxicity - auditory - vestibular - renal	Assess vestibular function and hearing function prior to initiation of therapy and at regular intervals during treatment  Measure blood urea nitrogen and creatinine throughout treatment	After bacteriologic conversion, dosage may be reduced to 2 -3 times per week  Not approved by FDA for TB treatment
Amikacin	IM or IV	15 - 30 mg/kg (1 g)	Toxicity - auditory - vestibular - renal Chemical imbalance Dizziness	Assess vestibular function and hearing function prior to initiation of therapy and at regular intervals during treatment  Measure renal function and serum drug levels	After bacteriologic conversion, dosage may be reduced to 2 -3 times per week  Not approved by FDA for TB treatment
Ethionamide	PO	15 - 20 mg/kg (1 g)	GI upset Hepatotoxicity Hypersensitivity Metallic taste	Measure hepatic enzymes	Start with low dosage and increase as tolerated  May cause hypothyroid condition, especially if used with PAS
Para-aminosalicylic acid (PAS)	PO	150 mg/kg (16 g)	GI upset Hypersensitivity Hepatotoxicity Sodium load	Measure hepatic enzymes Assess volume status	Start with low dosage and increase as tolerated Monitor cardiac patients for sodium load May cause hypothyroid condition, especially if used with ethionamide
Cycloserine	PO	15 - 20 mg/kg (1 g)	Psychosis Convulsions Depression Headaches Rash Drug interactions	Assess mental status Measure serum drug levels	Start with low dosage and increase as tolerated Pyridoxine may decrease CNS effects
Ciprofloxacin	PO	750 - 1500 mg/day	GI upset Dizziness Hypersensitivity Drug interactions Headaches Restlessness	Drug interactions	Not approved by the FDA for TB treatment Should not be used in children Avoid coadministration within 2 hours of: - antacids - iron - zinc - sucralfate
Ofloxacin	PO	600 - 800 mg/day	GI upset Dizziness Hypersensitivity Drug interactions Headaches Restlessness	Drug interactions	Not approved by the FDA for TB treatment Should not be used in children Avoid coadministration within 2 hours of: - antacids - iron - zinc - sucralfate
Levofloxacin	PO	500 mg/day	GI upset Dizziness Hypersensitivity Drug interactions Headaches Restlessness	Drug interactions	Not approved by the FDA for TB treatment Should not be used in children Avoid coadministration within 2 hours of: - antacids - iron - zinc - sucralfate
Clofazimine	PO	100 - 300 mg/day	GI upset Discoloration of skin Severe abdominal pain and organ damage due to crystal deposition	Drug interactions	Not approved by FDA for TB treatment Avoid sunlight Consider dosing at mealtime Efficacy unproven

PO - by mouth, IM - intramuscular, IV - intravenous

\* Consult product insert for detailed information

\*\*Adjust weight-based dosages as weight changes.

**Notes:: Doses for children the same as for adults. Use these drugs only in consultation with a clinician experienced in the management of drug-resistant TB.**