PREVENTING PEDIATRIC TB DISEASE IN 4 STEPS

TB screening is important for children and recommended annually by the American Academy of Pediatrics. The California TB Controllers Association (CTCA) provides the following guidance for pediatric TB evaluation.

1 Identify patients at risk for TB infection

- Use California Pediatric TB Risk Assessment

Risk present

Risk absent

- Testing low risk individuals is not recommended

2 Test patients for TB infection

- Use interferon gamma release assay (IGRA) for all ages if possible, especially for non-U.S.-born patients

Test positive

Test negative

- No further evaluation unless recent contact to TB case, or have symptoms of TB disease; discuss these patients with local TB program

Test indeterminate

- Repeat IGRA test. For persistent indeterminate, consult local/state TB experts

3 Use TB symptom screen, physical exam, and chest x-ray (CXR) to evaluate for TB disease

- Do not treat for latent TB infection (LTBI) until TB disease is excluded
- If an abnormal symptom screen, physical exam or CXR (including adenopathy), contact your local TB program (ctca.org/directory)

Normal symptom screen and CXR

Abnormal symptom screen or CXR

- Consider sputum x3 for AFB smear, culture, and nucleic acid amplification test; if induced sputum is not feasible, gastric aspirates should be obtained
- For patients with highly suspected or confirmed TB, report to your local TB program and consider treatment for TB disease

4 Prevent TB disease — treat LTBI before patients develop TB disease

TB disease: Lung disease is most common, but may infect other organs and lymph nodes. Symptoms include cough more than 2 weeks, fever, night sweats, weight loss or poor weight gain. Intrathoracic adenopathy in children should always be treated regardless of symptoms.

TB disease is deadly: more than 1 in 10 patients die.

Latent TB infection (LTBI): Persons with LTBI are asymptomatic and not infectious but can develop active TB disease months or years after being infected.

80% of TB disease in California results from progression of untreated LTBI.

Treating LTBI prevents deadly TB disease.

7/2025, California Tuberculosis Controllers Association
Adapted from TB Free California Provider Resources

CTCA
CALIFORNIA TUBERCULOSIS CONTROLLERS ASSOCIATION

Pediatric Latent Tuberculosis Treatment Regimens

Shorter, rifamycin-based treatment regimens are preferred, and more likely to be completed than isoniazid (INH) alone. However, rifampin and rifapentine can interact with oral contraceptives (OCPs), direct oral anticoagulants (DOACs), and other classes of drugs.[1] CTCA recommends using of a drug interaction guide, such as Epocrates or Lexicomp, prior to the initiation of rifamycin-based regimens.

Baseline liver function tests (LFTs) are not routinely needed prior to starting LTBI treatment, but can be considered for children with liver disease or on other hepatotoxic medications.

Regimen	Dosing	Duration	Treatment Considerations
Rifampin (4R)	15–20 mg/kg/day (max 600mg daily)	4 months	
3HP – INH and Rifapentine	INH – max 900mg weekly 25 mg/kg weekly ages 2–11 years 15 mg/kg weekly ages 12 years and older Rifapentine – max 900mg weekly 10.0–14.0 kg = 300 mg 14.1–25.0 kg = 450 mg 25.1–32.0 kg = 600 mg 32.1–50 kg = 750 mg >50 kg = 900 mg	12 weeks	Not for children < 2 years Large pill burden, preferred for children who can swallow pills Monitor for hypersensitivity reaction[2] **Add pyridoxine (see below)**
Rifampin and INH	Rifampin – 15–20 mg/kg/day (max 600 mg daily) INH – 10–15 mg/kg/day (max 300 mg daily)	3 months	Higher risk for hepatotoxicity **Add pyridoxine (see below)**
INH	10–15mg/kg/daily (max 300mg daily)	6–9 months	Higher risk for hepatoxicity Few drug-drug interactions **Add pyridoxine (see below)**

Add pyridoxine for the duration of INH-containing treatments for children who are exclusively breastfed, malnourished, or symptomatic and living with HIV, or adolescents who are pregnant

Pyridoxine	<25 kg –12.5 mg per dose of INH 25–49 kg – 25 mg per dose of INH ≥50 kg or for 3HP - 50 mg per dose of INH

Initiating treatment

- When LFTs are evaluated:
  - If ALT is normal, proceed with LTBI treatment, routine LFT testing not needed
  - If ALT is elevated <3x upper limit of normal, consult MD and consider LTBI treatment with monthly LFT testing

Monitoring while on LTBI treatment

- Monitor child's weight and symptoms monthly for signs of active TB disease or medication toxicity (e.g., peripheral neuropathy or anorexia, fatigue, abdominal pain, nausea/vomiting).
- Serial monitoring labs are recommended for patients with symptoms or evidence of liver toxicity, baseline elevated labs, or higher risk health conditions.

1 California Department of Public Health, Rutgers Ernest Mario School of Pharmacy, Rutgers Global Tuberculosis Institute, and the Curry International Tuberculosis Center 2022: *Rifamycin Drug-Drug Interactions: A Guide for Primary Care Providers Treating Latent Tuberculosis Infection* (https://www.currytbcenter.ucsf.edu/sites/default/files/2022-12/Rifamycin_2022.pdf)

2 National Society of Tuberculosis Clinicians (NSTC), a section of the National Tuberculosis Coalition of America, 2024: Testing and Treatment of Latent Tuberculosis Infection in the United States: A Clinical Guide for Health Care Providers and Public Health Programs (https://www.tbcontrollers.org/resources/tb-infection/clinical-recommendations/)