

# PREVENTING TB DISEASE IN 4 STEPS

With the passage of AB 2132, all primary care providers in California are required to evaluate their adult patients for tuberculosis. To help providers implement this initiative, the California TB Controllers Association (CTCA) provides the following guidance for TB evaluation.

## 1 Identify patients at risk for TB infection

- Use [California TB Risk Assessment](#)

**TB disease:** Usually presents with a cough that lasts more than 2 weeks, fever, night sweats, or unintended weight loss. TB is transmitted through the air and infects the lungs, but can spread to other organs and is often highly infectious.

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

**Latent TB infection (LTBI):** Asymptomatic infection with TB bacteria. Persons with LTBI are not infectious, but can develop highly infectious TB disease months or years after being infected.

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

**You can prevent TB cases by finding and treating people with LTBI.**

Risk present

Risk absent

- Testing low risk individuals is not recommended

## 2 Test patients for TB infection

- Use interferon gamma release assay (IGRA) 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 there is a suspicion of active TB disease, contact your local TB control program ([ctca.org/locations.html](http://ctca.org/locations.html))

Normal symptom screen and CXR

Abnormal symptom screen or CXR

- Consider sputum x3 for AFB smear, culture, and nucleic acid amplification test
- 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

# Latent Tuberculosis Treatment Regimens

Shorter treatment 3-4 months rifamycin based regimens are preferred and more likely to be completed than the isoniazid regimens. The limitations of the shorter regimens are potential drug-drug interactions with multiple classes of drugs such as oral contraceptives (OCPs) and direct oral anticoagulants (DOACs)<sup>1</sup>. CTCA recommends the use of drug interactions guide such as Epocrates or Lexicomp prior to the initiation of rifamycin-based regimens.

Regimen	Adult Dosing	Duration	Treatment Considerations
<b>Rifampin (4R)</b>	10 mg/kg/day (max 600mg daily)	4 months	
<b>Isoniazid and Rifapentine (3HP)</b>	INH – 900mg weekly Rifapentine – 900mg weekly Pyridoxine – 50mg weekly	12 weeks	Monitor for hypersensitivity reaction <sup>2</sup>
<b>Isoniazid/ Rifampin</b>	Rifampin – 10 mg/kg/day (max 600 mg daily) Isoniazid – 5 mg/kg/day (max 300 mg daily) Pyridoxine – 25 mg daily; if patient has neuropathy comorbidities – 50mg daily	3 months	Hepatotoxicity risk – requires closer monitoring
<b>Isoniazid</b>	Isoniazid – 5mg/kg/daily 300mg daily (max) Pyridoxine – 25mg daily; if patient has neuropathy comorbidities – 50mg daily	6–9 months	Hepatotoxicity risk – requires closer monitoring Few drug-drug interactions

## Initiating treatment

- Baseline liver function tests (LFTs) are needed prior to starting LTBI treatment for all pregnant patients and patients with the following medical conditions:
  - HIV infection, liver disease (including cirrhosis, non-alcoholic fatty liver disease, chronic hepatitis B/C), heavy alcohol use
  - use of hepatotoxic medication
  - age >50 years
- 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 at least monthly for symptoms of liver toxicity (anorexia, fatigue, abdominal pain)
- 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](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/>)