

Sonoma County Department of Health Services Latent Tuberculosis Infection (LTBI) Guidelines

January 2018

Persons who should be screened for TB with a Symptom Review & Skin Test (PPD)

- Foreign-born persons from a country with an elevated TB rate. This includes any country other than the United States, Canada, Australia, New Zealand, or a country in western or northern Europe.
- Individuals with medical risk factors for TB reactivation (diabetes, renal dialysis, renal failure, cancer, silicosis, malnutrition, HIV, or who are on immunosuppressive drugs).
- Patients found to have abnormal chest radiograph (CXR) consistent with old or active TB without prior evaluation or treatment (e.g. CXR = fibrotic upper lobe infiltrates. Include those with parenchymal infiltrates even if stable over time).
- Patients with unexplained chronic cough or weight loss.
- Residents and employees of high-risk congregate settings (nursing homes, prisons, jails, health care facilities, homeless shelters, substance abuse treatment facilities).
- Homeless individuals, injection drug users, organ transplant patients (planned or post-transplant).
- Contacts to active TB cases.
- Children who have the above risk factors or live with adults with TB risk factors or travel to TB endemic countries for more than two weeks.

Frequency of TB testing

- People who have had prior positive TB test for infection do not need to have PPD repeated.
- Individuals with previous negative results should be re-tested on a regular basis if there is an ongoing risk of exposure or TB infection.
- The frequency of testing should depend on the risk of TB exposure (e.g. Mycobacteriology laboratory workers are tested every six months. Primary care clinic workers are tested annually).
- Despite CDC recommendations to the contrary, many schools and workplaces have their own administrative or legal requirements for testing groups not otherwise considered at increased risk for TB infection.

Diagnosis of Latent TB infection (LTBI)

- Record the size of PPD *induration* (not erythema) in millimeters at 48-72 hours. Do not just write "Positive" or "Negative" as different populations have different PPD cut-offs.
- **Converter** refers to a change from a negative to a positive result, either on a TB skin test or TB blood test within a maximum of a 2 year time period. The definition of conversion for a skin test is a minimum of 10 mm increase in reaction size within a maximum of 2 years between tests.
- **Reactor** refers to any positive result that does not meet the definition of a converter (see previous bullet point).
- BCG history is important when evaluating a PPD reaction since BCG has been found to cause false positive reactions due to sensitization. BCG does not prevent TB infection and BCG is used in areas where TB is common.
- IGRA (blood test for TB) is preferred for patients with a history of having received a BCG or who were born in a country with an elevated TB rate (see above). For more details about IGRA go to:
<http://www.cdc.gov/tb/publications/factsheets/testing/IGRA.pdf>

Candidates for treatment of LTBI

- **Rule out active TB before diagnosing/treating LTBI.** Single view PA CXR is adequate for most patients to rule out pulmonary TB. Consider PA and lateral film for children <5y for pulmonary TB.

TREAT REGARDLESS OF PPD all recent close contacts to active TB cases if they are also:
1) Child<5y 2) HIV+ or 3)Immunosuppressed

Treat those with PPD = 5mm or greater:

- All other recent contacts
- Changes on Chest X-Ray consistent with old TB if not fully treated previously.
- HIV+ or other immunosuppression (s/p transplant, chronic prednisone or other immunosuppressive therapy, leukemia/lymphoma)

Treat those with PPD = 10mm or greater for all other risk groups:

- All PPD Converters (*described above*)
- Reactors who are newcomers to the US (< 5 years in US) from areas with high incidence of TB
- Reactors who are injection drug users with unknown HIV status
- Reactors who are homeless
- Reactors with medical situations of increased risk (*described above*)
- Reactors who are six weeks post-partum women
- Treat regardless of age

LTBI treatment regimens

See patients monthly to check 1) adherence 2) side effects

DRUGS	LENGTH of TX	TYPICAL ADULT DOSE	POPULATION	COMPLETION CRITERIA
Isoniazid (INH)	9 mo	300mg (5mg/kg) QD	Standard regimen	270 doses within 12 months
Rifampin (RIF)	4 mo	600mg (10mg/kg) QD	If INH-intolerant	120 doses within 6 months
INH/rifapentine (see CDPH Fact Sheet**):	12wks	900mg/900mg Qwk (DOT*)	1. Healthy, ≥ 12 years old. 2. OK for HIV+, NOT taking ARV medication	12 weekly doses within 16 wks

* DOT = *Directly Observed Therapy*

** <http://www.cdph.ca.gov/programs/tb/Documents/TBCB-INH-RIF-LTBI-fact-sheet.pdf>

- Pediatric dosing: INH QD: 10-20mg/kg (maximum dose 300mg)
- Use vitamin B6 (Pyridoxine) 10-50mg daily with INH.

Clinical monthly monitoring during LTBI treatment

- Not everyone needs Liver Function Tests ("LFTs" or Alanine Aminotransferase (ALT) & Total Bilirubin).
- Initial LFTs if known liver disease, HIV+, post-partum, alcoholism or hepatotoxic medications.
- Follow-up LFTs monthly if abnormal baseline or symptoms of hepatitis (anorexia/fatigue, etc.)
- Consult TB Control if hepatotoxicity or other side effects develop with LTBI treatment.

Pregnancy and TB infection

- Rule out active TB disease in pregnancy with shielded CXR at 20-22 weeks or sooner if symptomatic.
- LTBI treatment is not contraindicated in pregnancy but in general may be delayed 2-3 mos. after delivery unless additional risk factors exist (such as HIV infection, being a close contact or PPD converter).

Who MUST be reported to the TB Control Program

- **All Active TB cases or suspects** (required within one working day by California law per H&S Code, Title 17, CCR, Section 2500)
- PPD Reactors <5 years old

For more information, contact TB Control at 565-4567(Nurse's line), or "Ask a Disease Control Nurse" online at:

http://www.sonoma-county.org/health/services/diseasecontrol_ask.asp

See also the California TB Controllers Association (CTCA) Guidelines: <http://www.ctca.org/>