

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

September 2004

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

- *Foreign-born persons* from endemic TB countries (Mexico/Latin America, Asia, E. Europe, Africa, etc.).
- *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. Exclude isolated granulomata or pleural lesions.).
- *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 the TB risk factors or travel to TB endemic countries for more than two weeks

Frequency of TB testing

- Individuals 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. TB Clinic staff gets tested every six months. Primary care clinic staff gets tested annually.)

Diagnosis of Latent TB infection (LTBI)

- *Rule out active TB* before diagnosing/treating LTBI. Single view PA CXR is adequate for most to rule out pulmonary TB. Consider PA and lateral film for children <4y for pulmonary TB.
- *Record the size of PPD induration* in millimeters at 48-72 hours. Do not just write "Positive" or "Negative" as different populations have different PPD cut-offs.

"**Reactor**": Any individuals listed above with PPD of 10 mm or above
OR

Any individual listed above with PPD of 5 mm or above with HIV+, immunocompromised, or abnormal chest X-Ray (*described above*).

"**Converter**": individual with change by 10mm in PPD reaction over two years (24 mos), regardless of age.

- BCG history in most situations is ignored when considering INH recommendations. BCG does not prevent TB infection and BCG is given in areas where TB is common.

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 should be delayed until ~6wks after delivery unless additional risk factors exist (such as HIV infection, being a close contact or PPD converter).

Candidates for treatment of LTBI

- First: **rule out** active 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
- Fibrotic changes on Chest X-Ray consistent with old or active TB
- 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*) regardless of age
- 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
- All Reactors 35 years of age or younger

As public health policy, we prioritize LTBI treatment for the highest risk groups based on their risk of progression to active TB. **In general we are not administering INH to individuals >35 without other risk factors.** However, if a lower risk individual wishes to take INH after reviewing risks and benefits, we will offer therapy.

LTBI treatment regimens

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

DRUGS	LENGTH of TX	TYPICAL ADULT DOSE	POPULATION INDICATED	COMPLETION CRITERIA
Isoniazid (INH)	6 mo	300mg (5mg/kg) QD or 900mg (15mg/kg) BIW (DOT)	Standard regimen	180 doses w/i 9mo
Isoniazid (INH)	9 mo	300mg (5mg/kg) QD or 900mg (15mg/kg) BIW (DOT)	1. Fibrosis on CXR 2. All children (<18y) 3. HIV+ Adults	270 doses w/i 12mo
Rifampin (RIF)	4-6mo	600mg (10mg/kg) QD	If INH-intolerant	120 doses w/i 8mo
INH/RIF	4mo	300mg/600mg	Old untreated disease	120 doses w/i 6mo
RIF/PZA	2mo	600mg (10mg/kg) /2g QD or 600mg/4g BIW (DOT)	CAUTION: Use only in consult with TB Control	60 doses w/i 3mo

- *Pediatric dosing:* INH QD: 10-20mg/kg (maximum dose 300mg); INH BIW: 20-40mg/kg (max 900mg); BIW (twice weekly) dosing requires Directly Observed Therapy (DOT)
- *At-risk peripheral neuropathy:* Use vitamin B6 (Pyridoxine) 10-50mg daily with INH only if at-risk peripheral neuropathy: (alcoholism, post-partum/breastfeeding women, HIV, diabetes, uremia, age>65)

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.

Please contact the TB Clinic for 1) candidates for retreatment, 2) directly observed therapy (DOT), 3) any other questions.

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 Converters
- PPD Reactors <5 years old