

# PRESCRIBING PREVENTATIVE THERAPY FOR TB CONTACTS

*Helping Patients with Latent TB Infection Avoid Illness*

## *TB Causes Major Suffering in Peru*

**33,000**

*cases of TB  
per year*



**2nd**

*most cases of TB  
in the Americas*

## *Latent TB infection leads to a significant number of these TB cases*



**8.6 million people in  
Peru have latent TB**



**People with latent TB  
have a 1 in 10 chance of  
developing active TB**



*Primary Care Doctors Can Prevent TB Cases  
by Diagnosing and Treating Latent TB Infection:*

- 1. Evaluate contacts for BOTH active TB disease and latent TB infection**
- 2. Prescribe preventive therapy to those diagnosed with latent TB infection**

# 1. Evaluate contacts for BOTH active TB disease and latent TB infection



## Active TB:

TB bacteria are multiplying within the body and have overcome the immune system.

Patients are often symptomatic and contagious (but not always).

Active TB must be treated with multiple drugs.



## Latent TB:

Relatively few TB bacteria are in the body, and the immune system is controlling them

Patients are asymptomatic and are not contagious

Caused by fewer bacteria, so it can be treated with a single drug.



*Treating latent TB infection prevents it from developing into active TB disease.*

### WHAT THE NATIONAL GUIDELINES RECOMMEND:

*"All identified contacts should have a medical evaluation to rule out infection or disease caused by M. tuberculosis."*

*2013 National TB Guidelines, Section 6.3.1.2*

*A complete evaluation for active and latent TB includes:*



**Clinical examination**



**Chest x-ray**



**Sputum testing when indicated**



**Tuberculin skin tests [TST]**

Latent TB infection is diagnosed when a person has a positive TST but no evidence of active TB disease

The diagnosis of active TB disease versus latent TB infection may be straightforward or may require a period of observation

#### WHAT THE NATIONAL GUIDELINES RECOMMEND:

"The managing physician must decide whether to prescribe treatment for TB disease, isoniazid preventive therapy (IPT), or observation, according to what is presented in these guidelines."

*2013 National TB Guidelines, Section 6.3.1.2*

#### Diagnose Latent TB when contact has:

- Positive TST
- No symptoms
- Normal chest x-ray
- Negative sputum test (if sputum test done)

#### Observe and Reassess when contact has:

- Positive TST
- Symptoms or abnormal chest x-ray that raise concern for active TB but are not compelling enough to make a diagnosis
- Negative sputum test

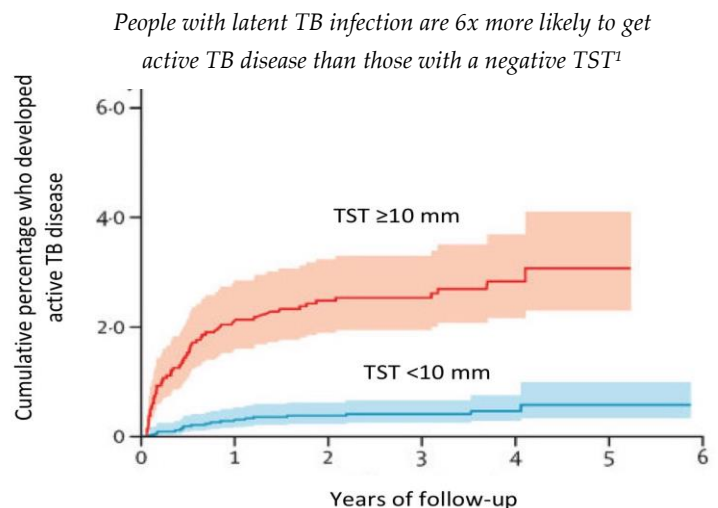
### How to Observe and Reassess

*2013 National TB Guidelines, Section 6.3.2.1.*

- ▶ Doctors need to actively follow up when results are concerning for active TB but not definitive.
- ▶ Reassessment visits should occur weekly to make sure that patients are not lost to follow-up.
- ▶ The guidelines recommend repeat evaluation, including sputum testing if indicated
- ▶ Doctors should use these reassessments to make a diagnosis of either latent TB or active TB.

People with latent TB infection are at high risk of developing active TB in the next few years.

Treating their latent TB infection can reduce this risk.



## 2. Prescribe preventive therapy to those diagnosed with latent TB infection

*IPT is the correct treatment for a person with latent TB infection.*

### PREVENTIVE THERAPY:

**is effective**

*IPT can prevent 60-95% of cases of active TB among patients with latent TB.<sup>2,3</sup>*

**is safe**

*Side effects are rare and can be prevented with close monitoring.<sup>4</sup>*

**does not lead to resistance**

*Isoniazid monotherapy is sufficient to treat the low burden of TB bacteria causing LTBI<sup>5</sup>*

### WHAT THE NATIONAL GUIDELINES RECOMMEND:

#### **Contacts who should receive isoniazid preventive therapy:**

*(once active TB disease has been ruled out)*

- **All children < 5 years old** who are contacts of a pulmonary TB patient regardless of TST result
- **People 5-19 years old** with a PPD  $\geq 10$  mm who are contacts of a pulmonary TB patient

*2013 National TB Guidelines, Table 2*

#### **Prescribing preventive therapy for contacts > 19 years old:**

- The current guidelines do not address whether contacts >19 years old with latent TB infection should receive IPT or not.
- There is clear scientific evidence that these contacts are also at high risk of developing active TB disease and benefit from IPT.
  - 1) Contacts of all ages are likely to have been infected recently if they have spent time in close contact with a TB patient.
  - 2) People infected within the past 2 years have the highest risk of developing active TB disease.
- For older contacts (age > 35), consider the risks and benefits to decide whether the contact should receive IPT.

## References

[1] Abubakar et al. *Lancet Infectious Diseases*. 2018; 18(10):1077-1087. [2] Smieja et al. *Cochrane Database of Systematic Reviews*. 1999;(2):CD001363 (2) [3] Reichler et al. *Clinical Infectious Diseases*. 2019; doi:10.1093/cid/ciz438.

[4] Smith et al. *Canadian Medical Association Journal*. 2011; 183(3):173-179. [5] van Halsema et al. *AIDS* 2010; 24(7):1051-1055.