



## Minding the Gap

### Tuberculosis

World TB Day was March 24th. Per [CDC](#), nationally, TB continued to decline throughout 2013. In Oregon, there was a small increase in the number of cases of TB disease from 2012 although the increase was not significant.

Click [here](#) to find out how much TB there is in your county.

In honor of World TB, we are holding a webinar Monday, March 31, 2014, 2:00-3:30 p.m. on the treatment and diagnosis of latent TB infection. You're invited! Registration found [here](#).

#### The chest x-ray is abnormal...now what?

Figuring out whether or not a patient has pulmonary TB based upon a chest x-ray can be very tricky!

The number one factor to take into consideration is the patient's risk for TB. If there are no risk factors, there's a much greater chance the patient has pneumonia or another disease.

Typical chest x-ray findings for pulmonary TB might include cavitary lesions or infiltrates, however, many cases are not typical!

When in doubt, give us a call or start sputum collection. To rule out TB disease, three sputum should be collected a minimum of eight hours apart, with one of these collected early in the morning. If needed, call our program or your county health department for help with sputum collection.

Love chest x-ray interpretation and want to learn more? Check these out:

[The International Commission on Radiology Education](#)

[Curry International TB Center radiology page](#)

#### Discard open Tuberculin after 30 Days

If you check out the package inserts for [Tubersol](#) and [Apisol](#), you'll find the following language:

**"Vials in use more than 30 days should be discarded due to oxidation and degradation which may affect potency."**

When a vial of tuberculin is opened, write the date it was opened on the vial and dispose of it when 30 days old. This means tuberculin will occasionally be wasted...but it is more important to have a valid test! Also tuberculin shouldn't be frozen or exposed to light except when doses are withdrawn from the bottle.



## Reading TB skin tests (TST)...early and late

### Question: Does the TST need to be read exactly 48– 72 hours after placement?

**Reading early:** CDC guidelines state TSTs should be read 48 hours after placement, however, in reality flexibility is often required. A reasonable approach is to aim for reading the TST sometime in the morning if placed in the morning or sometime in the afternoon if placed in the afternoon (about 44-47 hours after placement).

**Reading late:** Reading a positive TST late is no problem! Per CDC, a positive test may be read up to 7 days after placement. Also, remember, delayed reactions can occur. Some people may have a response after 72 hours. What about a negative test? A reasonable approach is again to aim for reading a negative result sometime in the morning if placed in the morning or afternoon if placed in the afternoon (about 73-75 hours after placement).



## Interferon Gamma Release Assays

Interferon gamma release assays are blood tests that detect latent TB infection. There are two types approved in the U.S.: QuantiFERON and T Spot. QuantiFERON (QFT) is most commonly used. Ordering a IGRA can be useful particularly when the patient has been vaccinated with BCG, when the TST is difficult to interpret or a false positive TST is suspected. Although it's great to have additional testing options, this can also lead to confusion!

Here are few FAQs about QuantiFERON (QFT):

### Can QFT be falsely negative if the patient has TB Disease?

Yes! Individuals who develop TB disease do so because their immune system can't control their infection. This may be a result from a large exposure to TB or it might be because the person has an impaired immune system due to malnourishment, HIV or another factor. Unlike many other lab tests, the IGRA (and TB skin test) measure an immune response by the individual patient. If the immune system is not functioning, a false negative or indeterminate result could occur.

### Does a prior TST influence a QFT result?

There is evidence that suggests a prior TST can induce a positive QFT (a “boosted response”) for a short amount of time although the data on this is limited. QIAGEN (the producer of QFT) recommends administering QFT concurrently or no later than 3 days after a TST.

### Does a positive QFT become negative after LTBI treatment?

Data suggests that among individuals who had INH therapy for LTBI, the QFT response declines with time for some people, but remains positive for a high proportion of individuals.

### TB Resources

- [Local Health Department](#)
- [TB Control, Oregon Health Authority](#)
- [Curry International TB Center](#)
- [Division of TB Elimination, CDC](#)

### Contact us!

- TB:** Heidi Behm 971-673-0169  
**HIV Prevention:** Larry Hill 971-673-0162  
**HIV Care:** Christy Hudson 971-673-0159  
**Hepatitis:** Jude Leahy 971-673-1130