Oregon Health Authority

March, 2012

HIV, STD, TB, VIRAL HEPATITIS PROGRAM, OREGON HEALTH AUTHORITY

Minding the Gap

Tuberculosis

World TB Day 3/24/2012

This issue will focus on Tuberculosis in honor of World TB Day on March 24th. The slogan this year is "Stop TB in my Lifetime" calling for a world free of TB. Despite being curable, tragically, TB causes *several million* deaths annually worldwide. For more information and World TB Day posters click here.

For World TB Day, TB Control, OHA will host a webinar by Kevin Winthrop, MD, MPH about screening/treating TB for patients on TNF alpha inhibitors (commonly used to treat autoimmune diseases such as rheumatoid arthritis and Crohn's disease). Patients on these drugs are particularly susceptible to TB. To attend call 971-673-0174 or email gayle.wainwright@state.or.us.

Interpreting hard to read TB skin tests (TSTs)

Anyone who has spent time reading TSTs has encountered one that's difficult to interpret. It's inevitable! What should you do in this situation?

Some tips:

- Don't read the TST before 48 hours. Sometimes there is a reaction immediately after the test which later disappears.
- Read across the arm (transverse) only.
- Record the reading in mm, even if it's negative (example: 2 mm, negative). For most inmates ≥ 10 mm is a positive test. If the person has HIV, an abnormal chest x-ray indicative of TB, is on immunosuppressive drugs or is a recent contact to TB case ≥ 5 mm is a positive test.
- Use a pen to mark the induration (bump) margins.
- Use your fingertips to feel the surface for induration. Sometimes it isn't visible.
- Measure only the induration and not the redness.
- Ask another health care worker for their opinion.

Still not sure?

- Wait 24 hours and look again. Some people have a delayed reaction to the test and you will find a larger induration after more time has elapsed.
- Repeat the TST on the other arm. You can do this immediately.
- If available, order a QuantiFERON or T SPOT test. Both are blood tests for latent TB infection.

TB Disease in a Jail: Could it happen at your facility?

In 2009,16% of Oregon TB cases reported a history of incarceration. Given this, most correctional facilities will encounter a patient with TB disease at some time. Will you make the diagnosis quickly?

J.G. was a 20 y.o. Hispanic male who arrived from Mexico 4 years ago. He had no TB symptoms at intake and his TST was negative. About 3 months later, he reported to medical with a cough for 1 month with no fever. He was given cough syrup. He returned the following week reporting a worsening cough and exhaustion. He was again given cough syrup. Another TST was placed. It was negative.

Two (2) months later he returned with hemoptysis, weight loss and fatigue. A chest x-ray (CXR) was ordered which was abnormal with infiltrates in the right upper lobe. Azithromycin and prednisone were started for pneumonia. After 3 weeks, the patient still was coughing. Another CXR was ordered which read "abnormal, increasing infiltrates right upper lobe". The patient was than appropriately placed in a negative pressure room, staff wore N95s masks and a 4 drug TB regimen was started. Sputum collected was smear +3, culture M. tuberculosis. His HIV test was positive. The jail and health department identified over 300 contacts needing follow-up testing.

Why was diagnosis delayed? *(NOTE: the above is a compilation of several cases)*

Medical staff in this situation were "fooled" by:

1- A negative TST. Many times people with TB disease have a negative TST because the immune system is so overwhelmed fighting TB that it doesn't respond normally to the test. A negative TST is also common in patients with immunocompromising conditions, such as HIV infection.

2- The patient didn't seem very sick. Often TB patients do not appear severely ill.

3- The radiologist's report didn't state that the chest x-ray was suspicious for TB.

Abnormal CXR readings such as pneumonia, infiltrates, consolidation, cavitation or miliary findings may be TB! The radiologist may not indicate this on the report. Radiographic findings in the upper lobes are particularly concerning, but abnormalities can appear anywhere.

Take away message...if a patient has risk factors for TB and a cough for more than 3 weeks obtain a chest x-ray and consider ordering sputum ***even if the TB skin test is negative***.

New Jail Rule Updates

The new OAR about TB testing for jails is in effect and can be viewed by clicking here. A recorded webinar on the rule is available upon request and an algorithm for jail TB testing will be completed soon. Below are questions from the webinar.

Q: If an inmate transfers from one facility to another, would testing from the first facility cover the second?

A *Yes, any documented TST or IGRA in the past year would meet the requirements.*

Q: Does documented completion of TB treatment mean previous treatment for either LTBI or TB disease?

A: *Yes, either applies.*

Q: What chest x-ray view should we get for someone who has a positive TST?

A: *A PA (posterior anterior) view is sufficient*

TB Resources

Click on the links below for more info:

- 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: *Cessa Karson 971-673-0150*

HIV Care: *Christy Hudson* 971-673-0159

Hepatitis: *Jude Leahy 971-673-1130*