

TB NURSE NETWORK MEETING

Wednesday, October 19, 2016

10:00-12:00 PM

Conference call in number: 1-888-557-8511

Passcode: 2544873

****Please Remember to Mute Your Phones****

Agenda

Announcements (15 min)

- New recommendations for LTBI screening
- New resources available
- Publications
- Archived and upcoming webinars

TB in the Long-Term Care Setting (45 min)

- Pamela Hackert, MD; Oakland County Health Division

Open Forum

Close and Adjourn

****Please Remember to Mute Your Phones****

Announcements

Tri-State TB Clinical Intensive Resources

- [Resources available here](#) and will be posted on our website soon

Next TBNN meeting

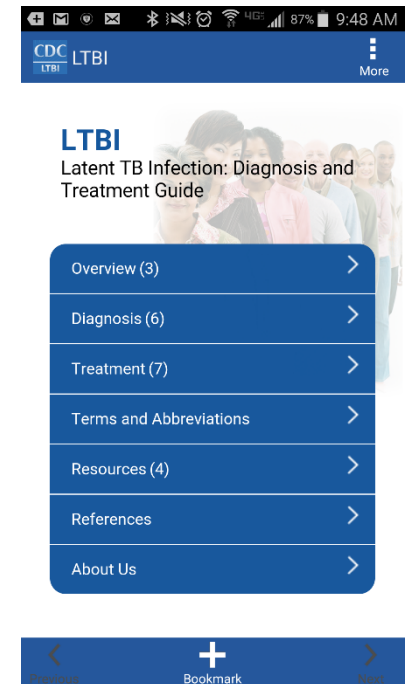
- Wednesday January 18th, 2017
- 10-12 PM EST

New Recommendations for LTBI Screening

- The U.S. Preventive Services Task Force (USPSTF) issued a [recommendation](#) for LTBI screening in high-risk asymptomatic adult populations:
 - People born in or who frequently travel to countries where TB disease is common, including Mexico, the Philippines, Vietnam, India, China, Haiti, and Guatemala; or other countries with high rates of TB.
 - People who currently, or used to, live in large group settings, such as homeless shelters or prisons and jails where TB is more common.
- Targeted towards physicians and private practice
- A [patient tool](#) was also published with the new recommendations

New Recommendations for LTBI Screening

- CDC also continues to recommend testing for LTBI in:
 - Healthcare workers
 - Contacts of people with confirmed or suspected TB disease
 - Part of disease management for people with certain conditions, such as HIV and diabetes, or as indicated prior to the use of certain medications.
- CDC has [latent TB infection resources](#) that you can use as part of your outreach and education efforts.
 - Fact sheets, graphics, pamphlets (see [this PDF](#) for the links)
 - LTBI Mobile App for Health Care Providers
 - CDC guidelines for LTBI treatment, treatment regimens, education and training, share content of app, bookmark
- SNTC: [Treating LTBI in Special Populations](#)



New Resources Available: Mayo Clinic Center for TB

- Field testing [Tuberculosis Management Resources for the Emergency Department](#)
 - “This online resource provides access to a variety of tools that enable health professionals to quickly and easily find information about TB in an emergency department setting. “
 1. Think TB
 2. Managing TB
 3. Public Health Resources – Reporting and General Information
 4. A Deeper Dive – TB Basics, TB Detection, and TB Management
 - To provide feedback, please email the [TBCenter](#)
- [Mayo Clinic Center for TB Knowledge Base](#)
 - “This tool has been developed to provide the clinician with a comprehensive repository of information in a clear and concise manner, so use may be easily incorporated into the clinical workflow.”
- [TB eReview: DRTB](#)
 - Free app in the iTunes store (working on Android)
 - Teaches clinicians to recognize, diagnose, and treat drug-resistant TB, including the management of the most common complications
 1. Learn
 2. Clinical Scenarios

Publications

[The End Game – Eliminating Tuberculosis in America](#) (9/27/16)

- Commentary of new USPSTF Recommendations by Dr. Mermin (Director of CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention)

[TB Drug Designed for Children Launched in Kenya](#) (9/27/16)

- First TB drug specifically designed for children
- Tastes good and dissolves in liquid for easy administration
- More than 20 other counties have expressed interest in drug

[Implementation Failures are Threatening Our Plans to End the TB Epidemic](#) (9/8/16)

- The Huffington Post in Association with The Times of India Group
- Co-authored by Dr. Zelalem Temesgen (Mayo TB Center)



Recently Archived Webinars

Mayo Clinic Center for Tuberculosis

1. ["CDC MDR TB ENM Webinar Series: MDR-CNS"](#)
2. ["TB in the Federal Corrections System: Status, Challenges, and Opportunities"](#)
3. ["Tuberculosis and Biologics"](#)

Curry International Tuberculosis Center

1. ["Changing TB Isolation Practices: New Guidelines for Molecular Testing"](#)
2. ["GeneXpert: Examples from the Field"](#)

Southeastern National TB Center

1. "Elimination of Tuberculosis"
 - 10/6, archived soon
2. "New treatments for latent and active TB disease"
 - 10/7/16, archived soon

Upcoming Webinars

RTMCCs (Jointly sponsored)

- “ATS/CDC/IDSA Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis”
- 11/4/16, 2-3:30 PM EST, registration closed but will be archived

Rutgers Global TB Institute

- [“Tricks of the Trade: Strategies for Pediatric TB Case Management”](#)
- 10/20/16, 1-2:30 EST

Curry International TB Center

- “The Interface of Molecular and Growth-Based Drug Susceptibility Testing Webinar”
- 1/27/17, time TBA, registration not yet open

Mayo Clinic

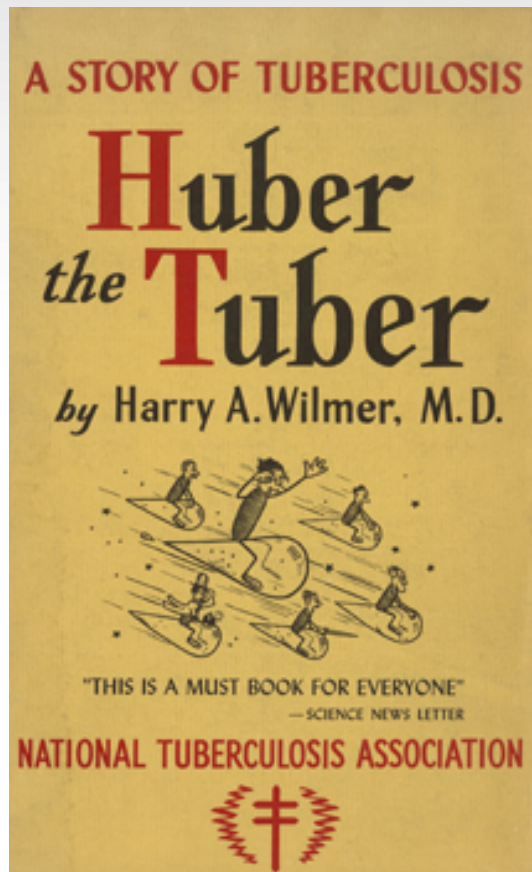
- [“Case Studies in Pediatric TB and HIV Co-Infection”](#)
- 11/9/16, 1-2 EST

TB in the Long-Term Care Setting

Pam Hackert, MD

Chief of Medical Services

Oakland County Health Division



Tuberculosis and Long Term Care Facilities

Pamela B Hackert, MD, JD, MPH



Why Be Specifically Concerned About Long Term Care Facilities?

- Although persons aged 65 years accounted for only 14% of the population in 2012, this group represented 22% of reported cases of TB.
- Even more striking are the disproportionate rates of TB among those living in long-term-care facilities (LTCFs). Previous reports have estimated that adults aged 65 years and older residing in LTCFs may have between 4 and 50 times the risk of developing TB disease than elderly persons living in the community
- Approximately 3.2 million workers were employed in LTCFs (April, 2014)
- Past estimates suggest the TB case rates are 3 times higher among LTCF workers compared with those working in any other job

“ A Decision To Test Is a Decision To Think”



Recognize possible signs and symptoms of Tuberculosis. Early diagnosis and treatment reduces spread.
Contact your Health Department or physician for more information.



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

©Adapted from 1999 Mississippi State Department of Health
Reprinted with permission

TB Testing in Nursing Home Residents

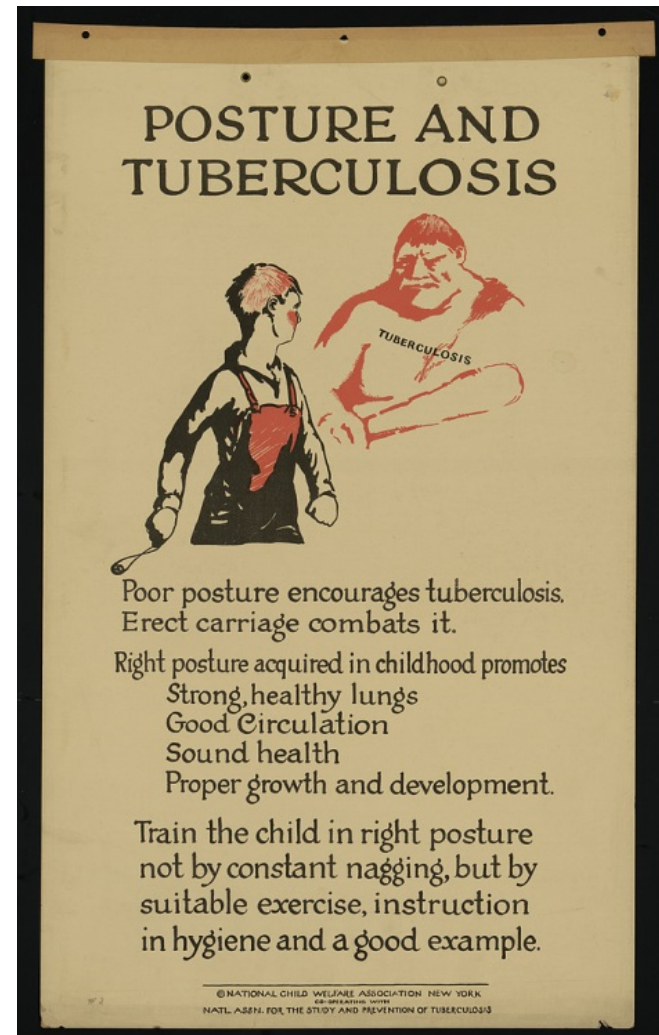
- Remember that NO test can conclusively rule out TB infection
- About 1/3 of our cases are considered “clinical cases”
- Often new residents are required to undergo a two-step PPD skin testing protocol.
 - Retesting is performed if a resident is thought to have been exposed to TB
- With the availability of blood tests, initial testing of new nursing home residents can be a one-step procedure.
- The blood tests can also be used for contact investigations

Diagnostic challenges

- Recognizing signs and symptoms:
 - Poor immune response in aging can lead to atypical presentation of signs and symptoms
 - Classic pulmonary disease features, such as weight loss, cough, hemoptysis, night sweats, may be absent or attributed to another diagnosis such as poor nutrition and chronic disease
 - Dementia and strokes are associated with dysphagia, which presents often as a chronic cough
 - Symptom screening challenging because of cognitive impairments

Additional Challenges in Presentation of TB in Elderly

- Slow immune response may lead to insidious onset
 - Decreased ability to perform activities of daily living
 - New onset or worsening of cognitive impairment
 - Increased fatigue
 - Shortness of breath can mimic COPD
- This leads to delay in diagnosis, allowing more time for transmission



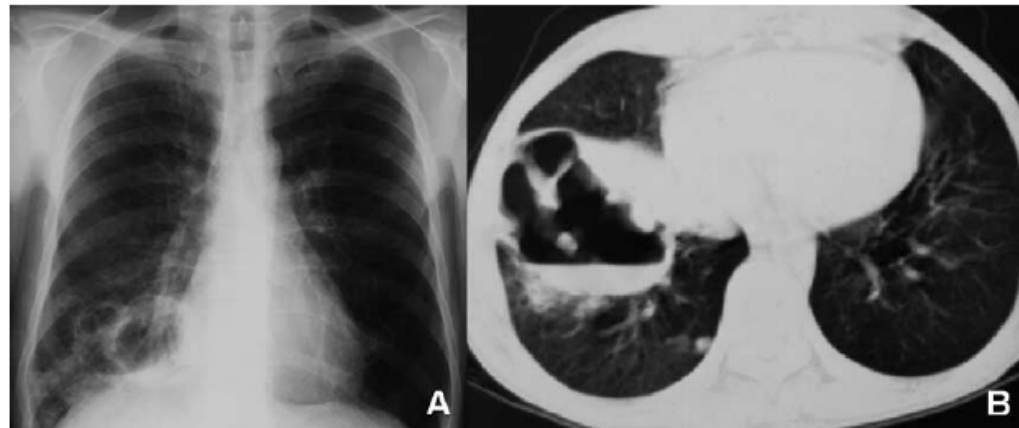
DM Modifies the Clinical Presentation of Pulmonary TB

- Already difficult to remember to “Think TB” in low-incidence states
- Associated with atypical radiological presentation
 - Lower lungs, misdiagnosed as CAP
 - Increased cavitory disease
- Typical features such as cough and weight loss can be less common

‘Tubercles’ (Latin *tuberculum* = a small firm nodule or swelling; a diminutive of *tuber*, potato)

*“Of Animalcula, Phthisis and Scrofula
Historical insights into tuberculosis in the
pre-Koch era”*

Ritu Lakhtakia

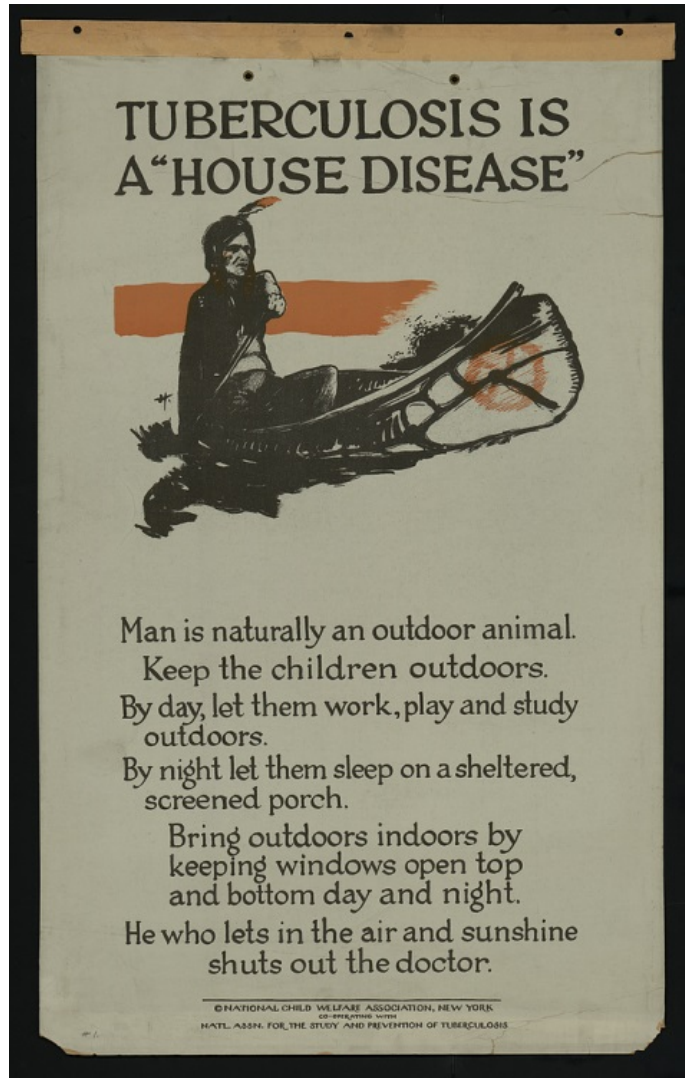


46 year old man with DM and TB

TNF-A INHIBITOR–ASSOCIATED TUBERCULOSIS

- TNF is a cytokine involved in mechanisms that form part of the host response to infection and cancer
- Has a critical role in the pathogenesis of chronic inflammatory diseases such as:
 - rheumatoid arthritis
 - psoriasis
 - ankylosing spondylitis
 - inflammatory bowel disease
- TNF-a Inhibitor medications include:
 - adalimumab
 - certolizumab pegol
 - Cimzia
 - Enbrel
 - etanercept
 - golimumab
 - Humira
 - Inflectra
 - infliximab
 - infliximab-dyyb
 - Remicade
 - Simponi
 - Simponi Aria

Diagnostic testing



- CDC recommendations for TB screening of residents and employees of LTCFs are based on initial and ongoing facility-specific risk assessments.
 - In people with:
 - a baseline positive test for LTBI

OR

 - completion of LTBI or TB disease treatment in the past
- THEN DO**
- one single chest radiograph
- AND**
- Symptom screening annually going forward

Limitations of TST

- Exposure to nontuberculous mycobacteria can cause a false-positive TST result
- False-negative TST results are more common in aging populations due to impaired immunity leading to the possibility of unrecognized TB infection
- TST findings are only valid if the tests are performed and interpreted properly
- **For these reasons, TB should remain in the differential diagnosis in elderly patients residing in LTCFs with clinical signs and symptoms of TB, even for those with a negative TST result**

What Next Then? IGRA Testing

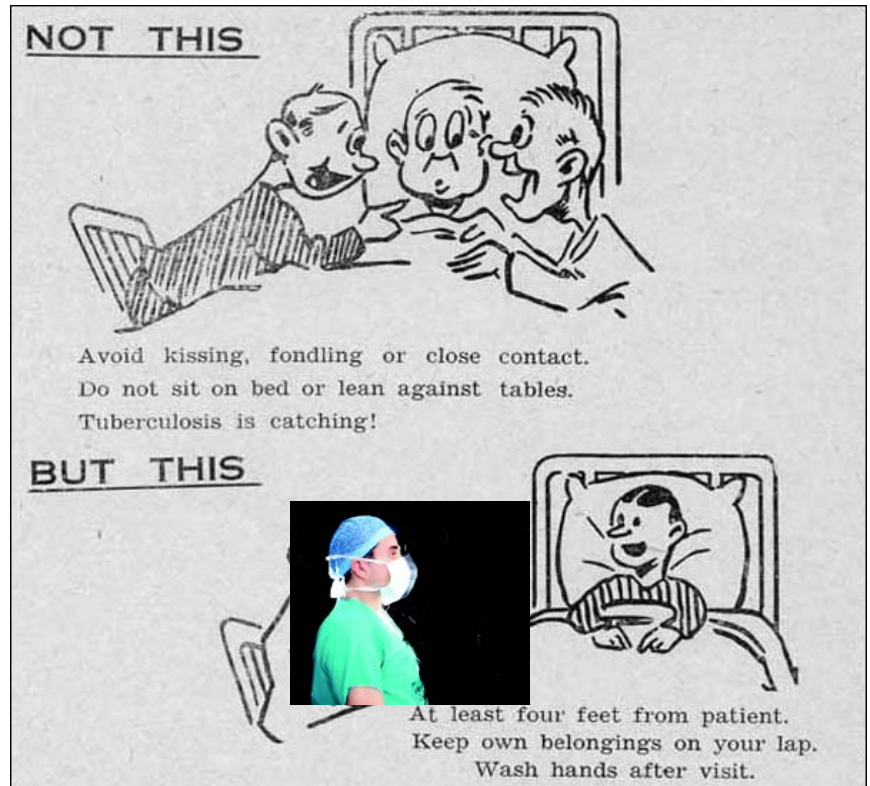
- Two kinds—T-spot and Quantiferon Gold
- Eliminates some of the concern about other causes for positive TST and reduces some of the concern about immunocompromised conditions causing false negatives
- Expensive relative to TST

Discordinate Results?

- In elderly populations, if either test is positive best to treat as positive
- Work up might include additional studies to look for active disease
- Should definitely include a chest x-ray and sputum cultures
- Tell the facilities in your jurisdictions that this is a good time to call their local health department!

Sputum? Really?! Why?

- Is the patient infectious?
- On the right treatment?
- How long will treatment take?
- Where did they get it?



“The List” for Sputum Collection—What We Tell Our LTC Facilities

- If you do not have containers, we will drop them off for you!
- The best time to collect is first thing in the morning
- We will want three—odds of picking up a positive really do increase 30+ percent with three samples compared to two
- Our nursing case managers are willing to help if you have tried already and can't get sputum production
- Testing sputum is free through the state lab when ruling out tuberculosis
- Culture of the sample is critical whether “PCR” or “Gene Expert” is negative or positive

Pearls to Share With LTC—Things To Look For To “Think TB”

- If a patient tells you a family member or close friend has been recently diagnosed with TB
- A previously negative employee, volunteer or patient has recently converted their TST or IGRA to reactive
- You have a new patient who comes into your facility on TB medications
- A sputum or other tissue sample comes back with words such as “Acid fast bacilli seen” or “AFB positive” or “M.tb identified”

Questions?

Open Forum

1. Appropriate ages for use of IGRAs

- T-SPOT says infants are fine
- CDC does not recommend anything less than 5 years old: [CDC Updated Guidelines for Using Interferon Gamma Release Assays to Detect Mycobacterium tuberculosis Infection – United States, 2010](#)
- What do others on the call practice?

2. How many healthcare providers would read a TST that was placed elsewhere?

- Does anyone have policies for this?

3. LHD policies or views on placing TSTs on vocational high school students (low-risk) who will be doing study rotations in health care settings?

- What do other LHDs think about this?
- Do you have policies regarding this?
- How do you/would you handle this situation?
- Do you think the testing should be handled through the hospital or clinic that is hosting the students for their rotation?

Thank you!

- Meeting notes and presentations will be sent to everyone on the TB Nurse Network list and posted on our website: www.michigan.gov/TB
- If you have questions/comments regarding TBNN, please contact:

Helen McGuirk
mcguirkh@michigan.gov
517-284-4957