
OSHA
adds value to business,
work and life.

Why we do what we do

Professionals preoccupied with the language of technology and regulations.

What should be one of the central themes in our activities: the prevention of human suffering.

We must understand, at a purely human level, the true value of that for which we work and fight, and the cost of failure. (thanks Steve Levine)

Who is this guy ?

- Infectious disease specialist for MIOSHA
- Certified Industrial Hygienist
- Dad two daughters

What will we accomplish

- Provide an overview of MIOSHA enforcement procedures for occupational exposure to tuberculosis.
- Answer questions
- Share some interesting facts.

Tuberculosis

- 9,421 TB cases in the US (a rate of 2.96 cases per 100,000 persons) CDC, 2014
- Not an accident
- Thanks

OSHA and TB

- Only applies to occupational exposure
- Generally found in:
- Health care facilities
- Correctional Institutions
- Homeless Shelters
- Long-term Care Facilities for the Elderly
- Drug Treatment Centers
- Home health care

Division Instruction GISHD COM-5-2R4 Tuberculosis

- Complicated way to say “we adopt federal OSHA’s CPL for TB”
- Issued January, 2016
- CPL stands for Compliance Directive (CD already taken)
- Updated June 30, 2015
- Adopted by MIOSHA in January of this year.
- Has you shall not you should

What Has Changed

- Uses the term Tuberculin Skin Test (TST) instead of Purified Protein Derivative test (PPD)
- Introduces the acceptance of a newer screening method the blood analysis for M. tuberculosis (BAMT)
- Health Care Setting is not defined as “any setting in which healthcare is delivered and workers might share air space with persons with TB disease or come in contact with clinical TB specimens”.
- Uses the following risk classifications: low, medium and potential ongoing transmission.

What Has Changed

- Criteria for serial testing for TB infection of health care workers have been more clearly defined. In certain settings, this change will decrease the number of health care workers who need serial TB screening.
- The frequency of TB screening for health care workers has been decreased in various settings, and the criteria for determination of screening frequency have been changed.
- Cited under general duty clause

What Has Changed

- New terms, airborne infection precautions (airborne precautions) and airborne infection isolation room (AII room), are introduced.
- Recommendations for annual respirator training, initial respirator fit testing, and periodic respirator fit testing have been added.
- The evidence of the need for respirator fit testing is summarized
- Information on ultraviolet germicidal irradiation (UVGI) and room-air recirculation units has been expanded.
- Additional information regarding multidrug-resistant TB and HIV infection has been included.

Screening for TB

Appendix C. Risk classifications for various health-care settings and recommended frequency of screening for *Mycobacterium tuberculosis* infection among health-care workers (HCWs)*

Setting	Risk classification†		
	Low risk	Medium risk	Potential ongoing transmission§
Inpatient <200 beds	<3 TB patients/year	≥3 TB patients/year	Evidence of ongoing *M. tuberculosis* transmission, regardless of setting
Inpatient ≥200 beds	<6 TB patients/year	≥6 TB patients/year	
Outpatient; and nontraditional facility-based	<3 TB patients/year	≥3 TB patients/year	
TB treatment facilities	Settings in which • persons who will be treated have been demonstrated to have latent TB infection (LTBI) and not TB disease • a system is in place to promptly detect and triage persons who have signs or symptoms of TB disease to a setting in which persons with TB disease are treated • no cough-inducing or aerosol-generating procedures are performed	Settings in which • persons with TB disease are encountered • criteria for low risk are not otherwise met	
Laboratories	Laboratories in which clinical specimens that might contain *M. tuberculosis* are not manipulated	Laboratories in which clinical specimens that might contain *M. tuberculosis* might be manipulated	

Recommendations for Screening Frequency

Appendix C from CDC Guidelines.

- For **low risk** settings
- Screening upon hire
- No serial screening for TB
- TST or BAMT for HCWs upon unprotected exposure to M. tuberculosis Perform a contact investigation (i.e., administer one TST or BAMT as soon as possible at the time of exposure, and, if the result is negative, give a second test [TST or BAMT, whichever was used for the first test] 8–10 weeks after the end of exposure to M. tuberculosis)

Appendix C from CDC Guidelines.

- For **medium** risk settings
- Screening upon hire
- Repeated at least every 12 months
- TST or BAMT for HCWs upon unprotected exposure to M. tuberculosis Perform a contact investigation (i.e., administer one TST or BAMT as soon as possible at the time of exposure, and, if the result is negative, give a second test [TST or BAMT, whichever was used for the first test] 8–10 weeks after the end of exposure to M. tuberculosis)

Appendix C from CDC Guidelines.

- For facilities with **potential ongoing transmission**
- Screening upon hire
- As needed in the investigation of potential ongoing transmission
- During an investigation of potential ongoing transmission of M. tuberculosis, testing for M. tuberculosis infection should be performed every 8–10 weeks until a determination has been made that ongoing transmission has ceased. Then the setting should be reclassified as medium risk for at least 1 year.

Screening

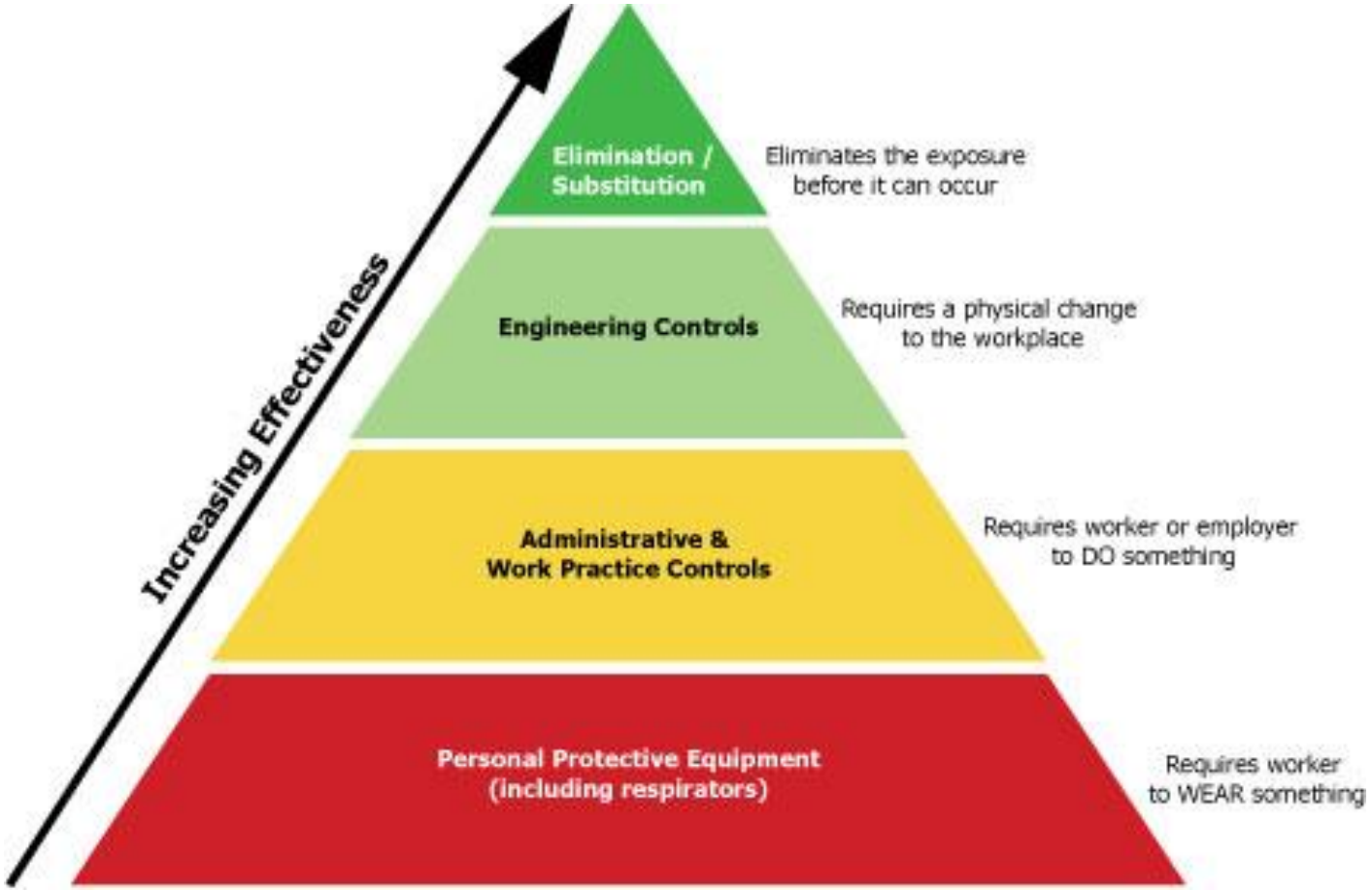
- Must be free of charge and at times and locations that are convenient to employees.

Testing can be discontinued

- Employee has a documented history of TB
- Documented positive test result
- Documented completion of treatment for latent TB infection or TB disease.
- These employees need one baseline chest radiograph to exclude a diagnosis of TB disease.
- Further testing if employee exhibits signs of TB disease.
- Instead of serial testing these employees should receive a medical evaluation and symptom screening.

Controlling Exposure

- Use the hierarchy of controls



Isolation Rooms

- Testing of isolation rooms is covered in appendix b of the CPL.
- The CDC guidance has a section on environmental controls.
- ASHRAE also has guidance for infection control.

Respiratory protection

- The primary means to control occupational diseases caused by breathing contaminated air is through the use of feasible engineering controls such as enclosures, confinement of operations, ventilation or substitution of less toxic materials.
- When these controls are not feasible, or while they are being instituted, appropriate respirators shall be used.

Respiratory protection

- Respirators are common in health care settings for protection from airborne contaminants.
- Respiratory protection is also used to protect patients from contamination. Can be used to keep patients from becoming a source of contamination.
- Covered establishments must comply with 29 CFR 1910.134 (Part 541 in Michigan) when using respirators for protection from TB.

Respiratory protection

- When respiratory protection is used your facility must have:
- Written Respirator Program Elements
- Selection
- Medical evaluation
- Fit testing
- Use
- Maintenance and care
- Breathing air quality and use
- Training
- Program evaluation

Respiratory protection

- Employees must wear NIOSH certified respirators in the following circumstances:
- When workers enter rooms housing individuals with suspected or confirmed TB disease;
- When workers perform high hazard procedures on persons who have suspected or confirmed TB disease; and
- When emergency response employees or others must transport in a closed vehicle, an individual with suspected or confirmed TB disease.

Accident Prevention
Signs and Tags

- In accordance with 1910.145 (f)(8), a warning shall be posted outside the respiratory isolation or treatment room or a message referring one to the nursing station for instruction may be posted.
- 1910.145 (f)(4) requires that a signal word or biological hazard symbol may be presented as well as a major message.

Accident Prevention
Signs and Tags

- Employers are also required to use biological hazard tags on air transport components which identify TB hazards to employees associated with working on air systems that transport contaminated air.

TB Resources

- OSHA.GOV has a TB page
- MIOSHA has our enforcement documents online at Michigan.gov
- CDC
- WHO

While I have you here

Tom Peterson, MD

- Healthcare is first in two prominent areas.
- We lead in both preventable deaths to our customers (patients)
- As well as injuries to our employees.
- Our time is far overdue

While I have you here

Tom Peterson, MD

- As many as 400,000 deaths caused each year to patients in American Hospitals (James, Jour Pat Saf, 2013)
- ~1 in 2 surgeries had a medication error and/or an adverse drug event (Nanji, 2015)
- >12 million patients each year experience a diagnostic error in outpatient care (Singh et al. 2014). – As high as 15% of all new diagnoses (Newman-Toker, 2013)
- 670,000 injuries every year to healthcare and social industry workers (1)
- Healthcare leads all industries in workers injuries – 10-20 times higher than such industries as high rise construction and aluminum plants (Janocha JA, Smith RT. Workplace Safety and Health in the Health Care and Social Assistance Industry, 2003–07. Washington, DC: US Bureau of Labor Statistics; 2012)

While I have you here

- If you are in an organization that is having problems in these areas (or any other health and safety area).
- Bloodborne pathogens (sharps/needlesticks)
- Musculoskeletal disorders (MSDs) related to
- patient/resident handling
- Slips, trips and falls (STFs)
- Workplace violence
- Tuberculosis
- MIOSHA can help.

Thank you for your attention

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