



TUBERCULOSIS: SURVEILLANCE AND PREVENTIVE THERAPY

Exposure to TB is a fact of life for healthcare workers in poorly ventilated and crowded urban healthcare facilities. Prevention of infection from serious exposure depends on a comprehensive infection control program. The following text discusses one important facet--a good surveillance and preventive therapy program for healthcare workers.

Surveillance goes hand and hand with other critical control measures which are discussed in the fact sheet "Tuberculosis and the Healthcare Worker: Control Measures Against Exposure" (which may be obtained from the AFT Healthcare Occupational Safety and Health Program).

Unfortunately, there are currently no good environmental methods to measure for TB bacillus in the air of a healthcare facility. Instead, facilities must rely on a less than perfect system of testing patients and healthcare workers to detect dangerous exposure and infection.

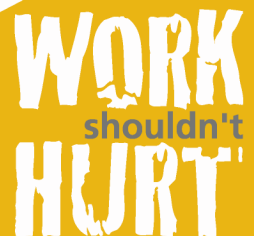
The Mantoux Test

The foundation of a screening program is tuberculin skin testing. The Centers for Disease Control (CDC) recommends the intradermal Mantoux test; multiple puncture tests such as the tine test are not recommended. The typical Mantoux test calls for 0.1 ml of purified protein derivative (ppd) to be injected under the skin of the forearm. This test should be read in 48 to 72 hours. Any rise in the skin (induration) is measured in millimeters (mm). The test is read as follows:

5 mm is positive when	10 mm is positive when
<ul style="list-style-type: none"> • There has been recent contact with a TB patient, or; • A person is HIV-positive, or; • A person has an abnormal X-ray. 	<ul style="list-style-type: none"> • A person has other risk factors, such as: <ul style="list-style-type: none"> - diabetes; - some cancers; - corticosteroid therapy; - is 10 percent under ideal weight.

A negative test does not mean that a person has not been infected. Tuberculin reaction may be absent in persons infected with TB who: (1) are HIV-positive (30 percent to 60 percent of such persons have little or no reaction to the Mantoux test); (2) have other conditions such as Hodgkin's disease; or (3) have only recently been infected with TB.

Two-step testing is recommended for people who must be screened frequently. A week after a first negative result, the test is repeated. If the second test is positive, the person is considered positive for TB.



Screening and Surveillance for Healthcare Workers

The CDC recommends that tuberculin skin testing be performed for healthcare workers as follows:

1. Pre-employment screening.
2. Screening every six months for those frequently exposed to patients with tuberculosis or those who perform high-risk procedures on TB patients.
3. Annual screenings for all other healthcare workers.
4. Screenings when a worker is exposed to a patient with clinical tuberculosis and there have been gaps in infection control. If the skin test is negative, the test should be repeated in 12 weeks.

When a Skin Test is Positive

Healthcare workers with a skin conversion should be evaluated for active tuberculosis. Those diagnosed with active TB should be offered counseling and tested for human immunodeficiency virus.

Healthcare workers with current pulmonary tuberculosis should be excluded from work until adequate therapy has begun and their sputum is free of TB bacilli on three consecutive smears.

When there is no evidence of clinical TB, workers should be counseled about options for preventive therapy. Healthy workers who cannot or will not accept preventive therapy can probably work without restrictions. They should be counseled to seek medical evaluation for any symptoms that may be associated with tuberculosis.

Preventive Therapy

Healthcare facilities should offer the appropriate preventive therapy to workers who have skin conversions. The usual preventive therapy regimen is isoniazid (INH-10 mg/kg) daily. Treatment varies from six to 12 months of continuous therapy. HIV-positive persons should be on therapy for 12 months.

Other new recommended treatment protocols call for simultaneous treatment with two or more drugs. This is especially important if a person has been infected with a multiple-drug-resistant strain. In any event, workers should be monitored carefully during the treatment regimen. INH can cause liver toxicity; therefore, it may be important to monitor liver enzymes from time to time.

When preventive therapy is recommended for pregnant women, INH should probably not be given during the first trimester.

Worker Rights and Union Action

AFT Healthcare believes that tuberculosis is an occupational disease for healthcare workers. Therefore, it is our opinion that employers must assume responsibility for surveillance, treatment, follow-up and counseling.

Employers must also be rigorous about providing education and training for healthcare workers on preventing tuberculosis exposure.

When a worker becomes infected, he or she should not have to seek attention from a private physician and pay for preventive therapy out-of-pocket or through personal health insurance. Instead, preventive therapy should be paid for by the employer and/or by workers' compensation.

Individual healthcare workers should keep all results of tuberculin skin tests to help document that a skin conversion was associated with a work-related exposure. This may support a workers' compensation claim.

A worker has a right to a copy of any tests performed by an employer through the OSHA "Access to Medical and Monitoring Records" standard (29 Code of Federal Regulations Part 1910.20).

Unions can assist their members through the maze of workers' compensation claims. At the same time, they can monitor the employer's tuberculosis infection control program to make sure that it is being conducted in a reasonable fashion. Under the OSHA standard, a union can request the collective results of TB surveillance (e.g., how many skin conversions, etc.). They can use this data to find out where the trouble spots are in the hospital (e.g., the emergency room etc.).

For more information, contact the AFT Healthcare Occupational Safety and Health Program at 202/393-5674.