



Title: **TUBERCULOSIS EXPOSURE CONTROL PLAN**

Purpose

In accordance with the principles of the OSHA and the Centers for Disease Control's Guidelines for Prevention of the Transmission of Tuberculosis, the following exposure control plan has been developed. The plan's purpose is to eliminate or minimize employee occupational exposure to mycobacterium tuberculosis and thereby protect City employees and their clients from the hazards of tuberculosis.

I. Tuberculosis Exposure Control Program

- A. Each Department shall review their work operations to evaluate the risk of tuberculosis transmission in each department; work area and work group so that appropriate controls can be instituted.
 1. Departments should begin with an Exposure Determination as described in section II, and departments should ensure that the determination in IIA adequately identifies all departmental employees with occupational exposure to tuberculosis.
 2. The department should also identify any employees who are potentially exposed to individuals suspect of having TB, but who are not included in IIA. OSHA has identified the following groups as populations with a greater incidence of TB than the general population: health care facilities, correctional institutions, long-term care facilities for the elderly, homeless shelters, and drug treatment centers.
 3. Departments must forward to the Medical Evaluation Unit the name, payroll number, department sub-group, and job title, of each employee to be included in the medical surveillance program.
 4. Departments must forward to the Safety and Loss Prevention Unit of the Risk Management Division the names, total number of employees, work location and departmental sub-group of those work groups potentially exposed to tuberculosis.
- B. A Departmental Tuberculosis Program Coordinator shall be designated to the Fire, Police, Prisons, Health, Office of Emergency Services, and Human Services departments, as the number of occupationally exposed employees is great for these departments. This coordinator will be responsible for administering the elements of this program in the department. In other departments the departmental safety officer should carry out this function.

- C. The elements of the program are as follows:
 - 1. Exposure Determination and Risk Assessment
 - 2. Medical Testing and Surveillance
 - 3. Controls
 - 4. Training and Education
 - 5. Record keeping

II. Exposure Determination and Risk Assessment

- A. The following employee populations have occupational exposure to tuberculosis based on their workplace environment
 - 1. Correctional Officers, prison social workers and psychologists, prison food service and health care workers, prison maintenance workers and others in direct contact with prison inmates; [This category includes the following class codes: 5H, 5A (Correctional), 5B, 5D09, 4A11, 4C51, 7Q, 8B09, and 8B10.]
 - 2. Emergency medical technicians and paramedics [This category includes the following class code: 6B.]
 - 3. Health care providers; [This category includes the following class codes: 4A, 4B, 4C, 4D, 4E, 4F, 4G and 5E.]
 - 4. Social workers and case workers [This category includes the following class code: 5A]
 - 5. Fire fighters - who perform first response for medical emergencies, first aid, emergency medical and paramedic functions [This category includes the following class code: 6B.]
 - 6. Police Officers - who perform first aid, emergency medical and jailer functions [This category includes the following class code: 6A.]
 - 7. Sanitarians and Housing and Fire Inspectors [This category includes the following class codes: 4J41-45 and 6G03-05]
 - 8. Workers working with the homeless such as the Office of Emergency Services.
 - 9. Workers at drug treatment centers.

III. Medical Testing and Surveillance

- A. The Employee Medical Services Unit is the provider of medical testing and surveillance under this program. Because this surveillance is initiated and maintained in workers who do not have disease, this surveillance is conducted outside of the employee disability system. If workers in high-risk groups experience a positive TB test following negative TB tests, this latent tuberculosis infection should be considered to be work-related and the worker should proceed to clinical evaluation within the City's Employee Disability System. Each department is responsible for ensuring that covered employees participate in initial testing and any necessary follow-up examinations, e.g. X-ray, etc.

B. Tuberculin Skin Testing

1. Beginning on January 1, 2002, all those workers identified in paragraph IIA. shall receive a purified protein derivative (ppd) tuberculin skin test on at least an annual basis. All initial testing will be two step testing with initial non-reactors getting a second 5-TU test should be given within one to three weeks of the first. Those non-responsive to that test would be considered negative and those responsive would be considered reactive but not converters. Beginning on July 1, 2002, the frequency of the ppd testing shall be increased to at least two tests per year.
 2. Beginning on July 1, 2002, all new employees hired by the City of Philadelphia must be given a tuberculin skin test prior to beginning work with the City.
 3. Those workers with a documented history of a positive PPD test and adequate treatment for disease or adequate preventive therapy for infection should be exempt from further PPD screening.
 - a. Workers from category IIA. with a history of a positive PPD shall be counseled periodically on the need to be promptly evaluated for symptoms suggesting TB.
 4. Testing shall be done according to patient testing criteria identified in appendix D.
- C. Test Interpretation - Interpretation of the results of tuberculin skin testing shall be according to the guidelines listed in the appendix C (excerpted from the Guidelines for Preventing Transmission of Tuberculosis in Health Care Facilities).
- D. Follow-up/Case Management
1. Those identified as positive by a PPD test will be informed of the test result; and will be evaluated to determine if they have active tuberculosis. Positive tuberculin tests will be followed up by a chest x-ray and a clinical evaluation. Positive tests should also be followed up with a history to elicit contacts and a possible source. Follow-up tests will be conducted by the EMSU.
 2. Those testing positive should be evaluated for preventive therapy according to current clinical guidelines approved by the Department of Public Health's Tuberculosis Control Program.
 3. All high-risk workers should be reminded periodically that they should be evaluated promptly for any signs of pulmonary tuberculosis i.e., cough, fever, night sweats, weight loss, fatigue and bloody sputum.
- E. Termination testing - whenever possible, employees identified in section II shall be offered a termination PPD test to determine their tuberculosis status at the end of their City career.

IV. Controls

- A. General—Management of Exposure to Tuberculosis - The source of tuberculosis infections is the *Mycobacterium tuberculosis* organism as expelled by individuals with active pulmonary tuberculosis. Early identification and isolation of those who might have active pulmonary tuberculosis will greatly reduce the chance of spread of the disease.
 - 1. All those working closely with clients who have a cough, especially one of several weeks duration, should ask the person to cover their mouth as they cough. Tissues should be available to allow the client to cover their mouth.
 - 2. Those clients who have a cough in the health centers should be asked to move to an isolated waiting area to reduce the spread of the disease in the center's waiting room. They could also be issued a surgical mask or other disposable respirator and asked to wear the respirator while awaiting examination.
 - 3. All workers who are potentially exposed to tuberculosis should comply with City infection control procedures or more specific procedures developed by their department.
 - 4. Health Care Facilities - Health care workers shall follow the guidelines for preventing the Transmission of tuberculosis in Health-care facilities. (see Appendix A).
 - 5. Laboratory workers shall follow the guidelines for biosafety level three as outlined in the CDC/NIH Biosafety in Microbiological and Biomedical Laboratories 3rd edition. (see appendix B).
- B. Engineering Controls - As much as possible, engineering controls such as ventilation systems shall be used to limit employee exposure to mycobacterium tuberculosis.
- C. Respiratory Protection - Employees exposed to significant concentrations of mycobacterium tuberculosis must wear a high-efficiency particulate air (HEPA) filter respirator for the performance of specified tasks.
 - 1. The use of National Institute for Occupational Safety and Health (NIOSH)-approved high efficiency particulate air (HEPA) respirators is a minimum level of respiratory protection when employees perform high hazard procedures, enter isolation rooms housing individuals who may have tuberculosis or transporting such individuals in a closed vehicle. Whenever respirator use is indicated, a complete respirator protection program must be in place.

V. Training and Education

- A. All workers identified by the exposure assessment in paragraph II shall receive training about TB, appropriate to their job level. This training shall cover at a minimum the following:
 - 1. Basics of how TB is transmitted, the effects of the disease, it's course in man, the difference between TB infection and active TB disease, signs and symptoms of TB and the possibility of reinfection of those with a positive PPD.

2. The potential for occupational exposure to persons with TB in their job, with particular emphasis on situations with an increased risk of TB exposure.
 3. The principles and practices of infection control that reduce the risk of TB transmission including programs to identify and isolate possible sources, and where appropriate, site-specific control measures
 4. The incidence of TB in their work group, and where possible to determine, in the community which they serve.
 5. The purpose of PPD testing, the importance of participation in the PPD testing program and the significance of a positive test.
 6. The basics of preventive therapy for latent tuberculosis infection.
 7. The workers' responsibility to seek medical evaluation promptly if symptoms develop that may be due to tuberculosis or if PPD test conversion occurs.
 8. The principles of drug therapy for active tuberculosis.
 9. The higher risk posed by tuberculosis to individuals with HIV infection including rapid development of clinical tuberculosis after infection, the differences in the clinical signs of the disease, and the high mortality rate associated with MDR-TB in such individuals
- B. This training should be carried out within 15 days of first assignment to a position identified in II. and should be updated annually.

VI. Record keeping

- A. The department tuberculosis program coordinator shall maintain departmental exposure and exposure determination records related to the tuberculosis exposure control program.
- B. The Employee Medical Services Unit shall maintain the medical records generated by this program. Where an employee is treated for tuberculosis within the employee disability system, copies of the medical records related to that treatment shall be provided to the Employee Medical Services Unit.
- C. Employee exposures to individuals known or suspected to have active pulmonary tuberculosis shall be recorded on an employee accident form.

Revision History

Revision #1 September 6, 1996

Revision #2 September 7, 2001