



UNIVERSITY POLICY

SUBJECT: HEALTH SERVICES **TITLE:** TUBERCULOSIS SURVEILLANCE

CODING: 00-01-40-42:00 **ADOPTED:** 9/24/01 **AMENDED:** 06/19/07

LAST REVIEWED: 06/19/07

I. PURPOSE

To establish a base line of information and to reduce the risk of transmission of tuberculosis (TB) infection.

II. ACCOUNTABILITY

Under direction of the President, the Executive Vice President for Academic and Clinical Affairs and the Senior Vice President for Administration shall ensure compliance with this policy. The Deans, President/CEOs of the Healthcare Units, Vice Presidents, Department Chairs, the Director of Human Resources Services, and Directors of the Occupational Medicine Services and Volunteer Services shall implement this policy.

III. APPLICABILITY

This policy shall apply to all of the following categories of people who work on UMDNJ premises: employees, including faculty, staff, interns, residents, clinical fellows; post-doctoral fellows; all persons who have accepted an offer of employment; and volunteers. **All persons listed will hereafter be referred to as "personnel."**

Contract agencies shall be required by contract to follow all Occupational Safety and Health Administration (OSHA) regulations and Centers for Disease Control and Prevention (CDC) recommendations including those concerning tuberculosis. Such contract agencies shall provide documentation to Human Resources and to the University administrator for their contract(s) regarding the following: TB surveillance, prevention and control activities, including baseline, two-stage, and periodic skin testing, TB education and respirator fit testing for all of their employees who work in University patient care service areas and activities.

Student requirements are specified in UMDNJ policy, Student Immunizations & Health Requirements, 00-01-25-40:00.

Housestaff requirements are specified in UMDNJ policy, Housestaff Immunizations and Health Requirements, 00-01-40-45:00.

IV. DEFINITIONS

See EXHIBIT A.

V. REFERENCES

A. Student Immunizations & Health Requirements 00-01-25-40:00

B. Housestaff Immunizations and Health Requirements 00-01-40-45:00

VI. POLICY

A. PREPLACEMENT TESTING

1. At the time a position is offered, candidates for staff positions shall be informed of the TB testing requirements by the Human Resources Generalist. Candidates for faculty positions shall be informed by the hiring department.
2. All new personnel shall undergo a TB surveillance test (TST) using the TB skin test Mantoux method, 5 tuberculin units of purified protein derivative (PPD) injected intradermally before starting work, or a Food and Drug Administration (FDA)-approved blood assay for TB (BATB), e.g., the Quantiferon-TB Gold test, unless exempted pursuant to this policy.
3. At the time of TB testing, if a diagnosis of active TB is clinically suspected, the personnel shall not be allowed to begin work until a diagnosis of active TB has been excluded or unless the personnel is on therapy and a determination by each campus's employee healthcare provider has been made that the individual is noninfectious.
4. If the result of any new personnel's PPD test taken before starting work is negative, a second PPD test shall be performed 1-3 weeks after the first test. This second test may be performed after the individual begins work. If the second test is positive, this is most likely a boosted reaction and not a new infection, and the individual shall be considered to have been previously infected and managed in accordance with this policy found in section VII. C. This two-step method shall be used in order to detect boosting phenomena that might be misinterpreted at subsequent testing as a new infection.
5. If the result of a new personnel's PPD test taken before starting work is negative, and the individual has a documented negative PPD test within 12 months of starting work, the a second PPD test is not needed at baseline.
6. If a person is tested with a BATB, the results will be interpreted according to guidelines issued by the CDC, FDA and manufacturer. A second BATB is not needed at baseline.

B. PERIODIC TESTING

1. If the initial TST result is negative, periodic testing shall be performed as required by the Public Employees Occupational Safety and Health (PEOSH) program for all personnel with potential patient contact and/or exposure to potentially infectious materials as determined by each school or administrative unit and personnel with non-human primate contact in accordance with the National Research Council Occupational Health and Safety in the Care and Use of Research Animals.

2. Annual testing for personnel with potential patient contact, or exposure to infectious materials will be conducted based upon the date of the personnel's latest skin test.

All personnel who work in areas of ongoing transmission or high-risk patient care areas as defined by PEOSH (see EXHIBIT A) will be given a TST every three (3) months.

All personnel who work in intermediate risk areas as defined by PEOSH (see EXHIBIT A) will be given a PPD every six (6) months.

Personnel with non-human primate contact shall receive periodic testing every six (6) months.

All other personnel do not require periodic TST unless otherwise directed or required by the appropriate campus's employee healthcare provider.

3. When a Director of Occupational Medicine Services determines that other TB testing is advisable, (e.g. a TB cluster has occurred or potential exposure to a documented TB case) (see EXHIBIT A), the Director may contact personnel to administer testing for tuberculosis.

VII. PROCEDURES

- A. Personnel with a history of Bacille Calmette-Guerin (BCG) vaccination are not exempt from the TB testing. Anyone with a history of BCG vaccination with a positive PPD test result may be offered a BATB to determine whether the PPD result is a reaction to the BCG, but otherwise is considered to have latent TB infection and will be managed as stated in this policy. (Section VII D).
- B. All TST tests must be administered, read and interpreted in accordance with current PEOSH requirements, and shall be performed by trained personnel at each campus's employee healthcare site, other UMDNJ sites or UMDNJ approved site. UMDNJ sites or UMDNJ approved sites must forward all records to the appropriate campus's employee healthcare provider.
- C. Personnel who have initial positive TST results, subsequent TST conversions or symptoms suggestive of TB must be evaluated promptly for TB disease. This evaluation should include a history, clinical examination and a chest X-ray. If the history, clinical examination or chest X-ray is compatible with TB disease, additional tests such as sputum microscopy and culture shall be performed. If symptoms compatible with active TB are present, personnel shall be excluded from work until either (a) a diagnosis of active TB is ruled out, or (b) a diagnosis of active TB is established, treatment is begun and a determination is made by the campus employee healthcare provider that the personnel is noninfectious.
- D. Personnel who have latent TB infection should be evaluated for therapy according to published CDC guidelines. If the evaluation for TB disease, treatment for TB and/or therapy for latent infection are carried out at a facility other than at the UMDNJ campus employee healthcare provider, all test results and documentation of care must be provided to the appropriate campus employee healthcare provider. Personnel with latent TB infection shall not be restricted from normal work activities.

Compliance with this policy is a condition of employment and continuation of employment. Personnel shall not be permitted to have contact with patients and non-human primates unless they have received PPD testing and any required follow-up. An individual's direct supervisor may take disciplinary action up to and including termination of work for personnel who fail to comply with their TB testing obligation. Any such termination shall be in consultation with the Human Resources Generalist.

VIII. EXEMPTIONS/EXCEPTIONS

Other than the exceptions/exemptions listed below, this policy shall apply to all personnel.

A. Prior Documentation

Documentation of having met the requirements of this policy may be accepted at the discretion of the campus employee healthcare provider.

B. Medical Contraindications

Personnel may be exempted from TST if there is a medical contraindication and if failure to receive testing does not prevent fulfillment of the requirements of the job. Such personnel must present a written statement from a physician licensed to practice medicine in the United States stating that the TST test is medically contraindicated, and giving the reasons for the contraindication and its duration, if not permanent. The written physician's statements shall become part of the personnel's health record and shall be reviewed by the appropriate campus employee healthcare provider. When a medical contraindication no longer exists, the personnel must then comply with the policy's requirements.

C. Other Exemptions

Exemptions to this policy may be made by the Directors of the Occupational Medicine Services based upon medical considerations.

IX. EXHIBITS

A. Definitions and Requirements

B. Bibliography

By Direction of the President:

Executive Vice President for Academic and Clinical Affairs

Senior Vice President for Administration

EXHIBIT A

Definitions and Requirements

Public Employees Occupational Safety and Health (PEOSH) Program's "Requirements for Preventing Occupational Exposure to Tuberculosis", June 1997.

Definition of a minimal, low, intermediate, or high-risk category is:

- A minimal risk category applies to an entire facility that has not treated, transported, or admitted individuals with suspected or confirmed infectious TB during the preceding year.
- A low risk category refers to areas or occupational groups within a facility that treated, transported, and/or admitted fewer than six (6) individuals with suspected or confirmed infectious TB disease during the preceding year.
- An intermediate risk category refers to areas or occupational groups within a facility that treated, transported, and/or admitted six (6) or more individuals with suspected or confirmed infectious TB disease during the preceding year.
- A high risk category refers to areas or occupational groups in which a) employee PPD conversion rates were significantly greater than for areas or groups in which occupational exposure to *Mycobacterium tuberculosis* was unlikely or than previous rates for the same area or occupational group, and epidemiological evaluation suggests nosocomial transmission; or b) a cluster of PPD test conversions occurred, and epidemiological evaluation suggests nosocomial transmission of *M. tuberculosis*; or c) possible person-to-person transmission of *M. tuberculosis* has been detected.

Blood Assay for TB (BATB): In vitro blood tests which aid in diagnosing *Mycobacterium tuberculosis*. The tests detect the release of interferon-gamma in prepared whole blood from patients sensitized to TB. Current BATB tests approved by the Food and Drug Administration include the Quantiferon-TB Gold test.

Latent TB Infection: A condition in which living tubercle bacilli are present in the body but the disease is not clinically active. Infected persons usually have positive tuberculin reactions, but they have no symptoms related to the infection and are not infectious. However, infected persons remain at lifelong risk for developing disease unless preventive therapy is given.

Purified Protein Derivative (PPD)-Tuberculin Test Conversion: A change in PPD test results from negative to positive. A conversion within a 2-year period is usually interpreted as new *M. tuberculosis* infection, which carries an increased risk for progression to active disease. A booster reaction may be misinterpreted as a new infection.

TB Case: A particular episode of clinically active TB disease. This term should be used only to refer to the disease itself, not the patient with the disease. By law, cases of TB must be reported to the local health department.

TB Cluster: Two or more PPD skin-test conversions occurring within a 3-month period among Healthcare Workers in a specific area or occupational group, and epidemiologic evidence suggests occupational (nosocomial) transmission.

EXHIBIT B

Bibliography

- A. Centers for Disease Control and Prevention (CDC) “Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection,” Morbidity and Mortality Weekly Report, June 9, 2000, 49(RR06); 1-54.
- B. New Jersey Department of Health and Senior Services Public Employees Occupational Safety and Health Program Requirements “Preventing Occupational Exposure to Tuberculosis,” revised April 1997.
- C. Centers for Disease Control. Guidelines for using the QuantiFERON-TB Gold test for detecting Mycobacterium tuberculosis infection, United States. MMWR 2005:54(No. RR-15):49-55.
- D. Centers for Disease Control. Guidelines for preventing the transmission of Mycobacterium tuberculosis in health-care setting, 2005. MMWR 2005:54(No. RR-17):1-141.
- E. National Research Council. Occupational Health and Safety in the Care and Use of Research Animals. National Academy Press, Washington, DC 1997.
- F. New Jersey Public Employee Occupational Health and Safety Program. Requirements for Preventing Occupational Exposure to Tuberculosis, July 1, 1997.