Policy Name: Tuberculosis Surveillance

Section #: 100.3.2  
Section Title: Clinical, Compliance, Ethics & Integrity: Clinical Health, Safety & Patient Care

Formerly Book: 00-01-40-42:00; 40.3.3

Approval Authority: Executive Vice President for Health Affairs & RBHS Chancellor

Adopted: 09/24/2001  
Reviewed: 06/12/2020

Responsible Executives: Executive Vice President for Health Affairs & RBHS Chancellor and Vice President for Health Affairs

Revised: 07/01/2010; 07/01/2013; 06/12/2020

Responsible Office: RBHS Chancellor

Contact:
- EOHSI Employee Health: 848-445-0123
- NJMS Occupational Medicine: 973-972-2900
- Rutgers Occupational Health: 848-932-8254
- RWJMS Employee Health: 732-235-6559

Section: 40.3.3

Section Title: Legacy UMDNJ policies associated with Risk Management

Policy Name: Tuberculosis Surveillance

Formerly Book: 00-01-40-42:00

Approval Authority: Senior Vice President for Finance and Administration

Responsible Executive: Senior Vice President for Finance and Administration

Responsible Office: Office of Risk Management

Originally Issued: 9/24/2001

Revisions: 7/1/2010, 7/1/2013
1. **Policy Statement**

The policy covers Rutgers University employees who are employed within legacy UMDNJ positions: Healthcare Personnel and Public Safety Personnel, as defined in University Policy 100.3.1: Influenza Immunization Policy for Covered Individuals, and also Research Personnel who work with *Mycobacterium tuberculosis* or similar agents or with nonhuman primates. These individuals will be grouped as **TB Surveyed Personnel**. All definitions are summarized in the Definitions section.

2. **Reason for Policy**

To provide guidelines to assist legacy UMDNJ departments/units.

The purpose of this policy is to protect the health and safety of the University Community by establishing a baseline of current information in an effort and to reduce the risk of transmission of tuberculosis (TB) infection.

3. **Who Should Read This Policy**

3.

All Rutgers employees who are employed in legacy UMDNJ positions.

This policy shall apply to all of the following categories of people who work on legacy UMDNJ premises: Rutgers employees, including faculty, staff, interns, residents, clinical fellows; post-doctoral fellows; all personnel who have accepted an offer of employment; and volunteers who will work or be assigned as TB Surveyed Personnel on Rutgers premises. The University pPolicy 100.3.3: on Housestaff Immunizations and Health Requirements, 40.3.2 mandates that housestaff meet the requirements of the University Policy (40.3.3.100.3.2: on Tuberculosis Surveillance). All personnel listed will hereafter be referred to as “personnel.” See also, Section VII: EXEMPTIONS/EXCEPTIONS.

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 *M. tuberculosis*. Such contract agencies shall provide documentation to University Human Resources and to the University administrator for their contract(s) regarding the following: TB surveillance, prevention and control, and education activities, including baseline, two-stage, and periodic TB skin testing and symptom surveys; and TB education and respirator fit testing for all of their employees who work in University-Rutgers patient care service areas and/or perform patient care activities, or research with potential exposure to *M. tuberculosis* or nonhuman primates.

Student requirements are specified in the University Policy 10.3.13: Student Immunizations & Health Requirements, found at http://academicaffairs.rutgers.edu/rbhs-level-policies.

4. **Related Documents/Resources**


All policies are subject to amendment. Please refer to the Rutgers University Policy Library website (policies.rutgers.edu) for the official, most recent version.

All regulations and procedures are subject to amendment.

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B. University Policy 40.3.2100.3.3: Housestaff Immunizations and Health Requirements. RBHS Policy website: http://academicaffairs.rutgers.edu/rbhs level policies.


G. CDC. Tuberculosis Screening, Testing, and Treatment of United States Health Care Personnel: Recommendations from the National Tuberculosis Controllers Association and CDC, 2019. MMWR 2019;68 (No. 19): 439-443. https://www.cdc.gov/mmwr/volumes/68/wr/mm6819a3.htm?s_cid=mm6819a3_x


I. University Policy 100.3.1: Influenza Immunization Policy for Covered Individuals

5. Contacts
Dr. Milind Shah, Rutgers University Occupational Health Department: 848-932-8254

5. Definitions

**High Risk Category:** Refers to areas or occupational groups in which: (a) employee purified protein derivative (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.

**Areas of potential increased occupational risk for TB exposure:** As noted by the CDC. At Rutgers, includes clinicians in the Global TB Institute, pulmonary medicine, emergency medicine and respiratory therapy, researchers in laboratories that use *M. tuberculosis* and related bacteria.

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and all personnel who work with non-human primates. In accordance with the National Research Council “Occupational Health and Safety in the Care and Use of Research Animals.”

**CDC:** Centers for Disease Control and Prevention. A United States federal agency, under the Department of Health and Human Services.

**Clinical Area:** All patient care areas, even if the Covered Individual is not providing clinical care. These areas may include, but are not limited to, outpatient offices and clinics, patient waiting rooms, patient rooms, and meeting rooms used for patient/family consults. Please see University Policy 100.3.1: Influenza Immunization Policy for Covered Individuals.

**Covered Individual:** A Rutgers University clinical faculty or clinical staff member who has contact with a patient in a Clinical Area and all Rutgers University “Public Safety Personnel” at all locations, regardless of whether they have a routine presence in a “Clinical Area” or have routine contact with patients. Please see University Policy 100.3.1: Influenza Immunization Policy for Covered Individuals.

**Interferon Gamma Release Assay for TB (IGRA):** 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.

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

**PEOSH:** Public Employees Occupational Safety and Health Program. Under the State of New Jersey Department of Health, develops and enforces occupational health standards for public employees.

**TB:** Tuberculosis. A highly contagious infection caused by the bacterium *Mycobacterium tuberculosis*.

**Tuberculosis Test Conversion:** A change in TB surveillance 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 TST conversions occurring within a 3-month period among personnel in a specific area or occupational group, and epidemiologic evidence suggests occupational (nosocomial) transmission.

**TB Surveillance Test (TST):** Includes TB skin testing, interferon gamma release assay testing and symptom survey completion, as indicated

**TB Surveyed Personnel:** Healthcare Personnel and Public Safety Personnel, as originally defined in University Policy 100.3.1: Influenza Immunization Policy for Covered Individuals, and also

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d. If the result of any new personnel’s TB skin test taken before starting work is negative, and the individual has a documented negative TB skin test within 12 months of starting work, a second TB skin test is not needed at baseline.

e. If the initial TST result is positive and the individual is diagnosed with latent TB infection (LTBI), the individual will have a focused review of history and physical examination, a chest x-ray (posteroanterior), and will be counseled and be referred for treatment, if not already treated for LTBI. If the individual is not treated, that individual shall have an annual symptom survey thereafter.

f. 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 disease has been excluded, or unless the individual is documented to be on therapy and a determination has been made by the campus Occupational Health office that the individual is noninfectious. The individual will be handled using appropriate infection control methods and be referred for immediate follow-up and evaluation.

g. If an individual is tested with a TBIGRA, the results will be interpreted according to guidelines issued by the CDC, FDA, and manufacturer. A second TBIGRA is not needed at baseline.

2. Periodic Testing

a. If the initial TST result is negative, periodic TB skin testing or IGRA testing shall be performed, based on the initial test, as required by the Public Employees Occupational Safety and Health (PEOSH) Program for all TB Surveyed Personnel who work in areas of with potential increased occupational risk for TB exposure, as detailed in Definitions. All other TB Surveyed Personnel who have negative baseline 2-step TB skin testing or IGRA testing will not be routinely tested annually, unless otherwise directed or required by the appropriate campus patient contact and/or exposure to potentially infectious materials as determined by each school or administrative unit, and for all personnel with non-human primate contact in accordance with the National Research Council “Occupational Health” office and Safety in the Care and Use of Research Animals.

b. For TB Surveyed Personnel who get periodic TB skin testing or IGRA, convert and are diagnosed with LTBI, the individual will have a focused review of history and physical examination, a chest x-ray (posteroanterior), be counseled and be referred for treatment. Such personnel will be referred to Risk Management and Insurance for evaluation if they report possible work-relatedness.

b.c. Annual testing for TB Surveyed Personnel with-in areas of potential increased occupational risk patient contact, or exposure to infectious materials will be conducted based upon the date of the individual’s latest skin test TST, except as follows.

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i. All personnel who work in areas of ongoing transmission or high-risk patient care areas as defined by PEOSH (see High Risk Category, in Definitions EXHIBIT) will be given a TST every three (3) months 8 to 10 weeks.

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

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

iv. All other personnel do not require periodic TST unless otherwise directed or required by the appropriate campus Occupational Medicine/Employee Health Services.

d. TB Surveyed Personnel with a positive TB skin test or IGRA who are diagnosed with LTBI, whether determined at hire or during the course of employment, but do not document completion of treatment for LTBI, shall undergo annual TST using a symptom survey. The symptom survey will include those questions currently recommended by the CDC and may be done online as part of the annual medical screening for respirator fit testing. Each year, the individual will be provided education concerning LTBI and treatment options and will be strongly encouraged to be treated for LTBI.

e. If the online symptom survey indicates potential TB disease, then the individual will be contacted to come to the Occupational Health office for immediate evaluation.

c.f. When the campus director of Occupational Medicine/Employee Health Services determines that other TB testing is advisable, (e.g. a TB cluster has occurred or potential exposure to a documented TB case) (see. Definitions EXHIBIT), the Director may contact personnel to administer testing for tuberculosis TB.

B. Responsibilities

1. 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 TB skin test result may be offered an BATB IGRA to determine whether the TB skin test result is a reaction to the BCG, but otherwise is considered to have latent TB infection LTBI and will be managed as stated in this policy (VI Section 6.B.4).

2. All TSTs TB skin tests and IGRAs must be administered, read, and interpreted in accordance with current PEOSH requirements, and shall be performed by trained personnel at the respective campus Occupational Medicine/Employee Health Services office-site. Rutgers approved office-sites must forward all records to the appropriate campus Occupational Medicine/Employee Health Services director.

3. Personnel who have initial positive TST results, subsequent TST conversions, or symptoms suggestive of TB must be evaluated promptly for active TB disease. This evaluation should include a history, clinical examination, and/or
a chest X-ray (posteroanterior). If the history, clinical examination, and/or chest X-ray is compatible with active TB disease, the person will be referred for additional tests, such as sputum microscopy and culture, shall be performed. If symptoms compatible with active TB disease are present, personnel shall be excluded from work until either (a) a diagnosis of active TB disease is ruled out, or (b) a diagnosis of active TB disease is established, treatment is begun, and a determination is made by the campus Occupational Medicine/Employee Health Services director that the personnel are noninfectious.

4. Personnel who have LTBI, latent TB infection, should be evaluated for therapy according to published CDC guidelines. If the evaluation for active TB disease, treatment for TB, and/or therapy for latent TB infection LTBI are carried out at a facility other than at the campus Occupational Medicine/Employee Health Services, all test results and documentation of care must be provided to the appropriate campus Occupational Medicine/Employee Health Services director. Personnel with latent TB infection LTBI shall not be restricted from normal work activities.

C. Enforcement

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 TB surveillance 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.

VII. 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 Occupational Medicine/Employee Health Services director.

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 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

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VIII. EXHIBIT

Definitions and Requirements

EXHIBIT

Definitions and Requirements

Taken from: Public Employees Occupational Safety and Health (PEOSH) Program
“Requirements for Preventing Occupational Exposure to Tuberculosis,” June 1997.

The definitions of minimal, low, intermediate, and high-risk categories are:

• _______ A minimal risk category applies to areas or occupational groups within a facility that have 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

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 A
TB Surveillance Algorithm
1/17/2020

2-Step TB Skin Test

History of BCG
- Yes
  - IGRA
    - Positive
      - PE, CXR, Counsel, Recommend Rx
    - Negative
      - No

- No
  - IGRA
    - Positive
      - Work in ED, GTBI, Pulmonary, Respiratory Therapy, Lab with MTB or NHP
    - Negative
      - No

PE, CXR, Counsel, Recommend Rx
- Treated
  - Annual Symptom Survey
- Not Treated
  - Annual TB Skin Test or IGRA

Confirm Treatment Completed
- No
  - Annual Education

Annual Symptom Survey
- All

Annual TB Skin Test or IGRA
- All

Annual Education

Legend:
BCG = Bacille Calmette-Guérin vaccine
CXR = Chest x-ray
ED = Emergency Department
GTBI = Global TB Institute
IGRA = Interferon gamma release assay
MTB = Mycobacterium tuberculosis
NHP = Nonhuman primate
PE = Physical examination
RX = Treatment
TB = Tuberculosis