Tuberculosis Screening and Targeted Testing of College and University Students

WPI Health and Wellness Services

Part I: Tuberculosis (TB) Screening Questionnaire (to be completed by incoming students)

Please answer the following questions:

Have you ever had close contact with persons known or suspected to have active TB disease? □ Yes □ No

Were you born in one of the countries listed below that have a high incidence of active TB disease? □ Yes □ No

If yes, please CIRCLE the country, below

Afghanistan Côte d'Ivoire
Algeria Democratic People’s Republic of Korea
Angola Democratic Republic of the Congo
Argentina Democratic Republic of the Congo
Armenia Djibouti
Azerbaijan Dominican Republic
Bahrain Ecuador
Belarus El Salvador
Benin Equatorial Guinea
Bhutan Eritrea
Bolivia (Plurinational State of) Ethiopia
Bosnia and Herzegovina Fiji
Botswana Gabon
Brazil Gambia
Brunei Darussalam Georgia
Bulgaria Ghana
Burkina Faso Guatemala
Burundi Guinea
Cabo Verde Guinea-Bissau
Cambodia Guyana
Cameroon Haiti
Central African Republic Honduras
Chad India
China Indonesia
Colombia Iran (Islamic Republic of)
Comoros Iraq
Congo Kazakhstan

Source: World Health Organization Global Health Observatory, Tuberculosis Incidence 2012. Countries with incidence rates of ≥ 20 cases per 100,000 population. For future updates, refer to http://apps.who.int/ghodata.

Have you had frequent or prolonged visits* to one or more of the countries listed above with a high prevalence of TB disease? (If yes, CHECK the countries, above) □ Yes □ No

Have you been a resident and/or employee of high-risk congregate settings (e.g., correctional facilities, long-term care facilities, and homeless shelters)? □ Yes □ No

Have you been a volunteer or health-care worker who served clients who are at increased risk for active TB disease? □ Yes □ No

Have you ever been a member of any of the following groups that may have an increased incidence of latent *M. tuberculosis* infection or active TB disease – medically underserved, low-income, or abusing drugs or alcohol? □ Yes □ No

If the answer is YES to any of the above questions, WPI requires that you receive TB testing as soon as possible but at least prior to the start of the subsequent semester).

If the answer to all of the above questions is NO, no further testing or further action is required.

*The significance of the travel exposure should be discussed with a health care provider and evaluated.*
Part II. Clinical Assessment by Health Care Provider

Clinicians should review and verify the information in Part I. Persons answering YES to any of the questions in Part I are candidates for either Mantoux tuberculin skin test (TST) or Interferon Gamma Release Assay (IGRA), unless a previous positive test has been documented.

History of a positive TB skin test or IGRA blood test? (If yes, document below)  Yes _____ No _____

History of BCG vaccination? (If yes, consider IGRA if possible.)  Yes _____ No _____

1. TB Symptom Check¹
Does the student have signs or symptoms of active pulmonary tuberculosis disease?  Yes _____ No _____

If No, proceed to 2 or 3

If yes, check below:
- Cough (especially if lasting for 3 weeks or longer) with or without sputum production
- Coughing up blood (hemoptysis)
- Chest pain
- Loss of appetite
- Unexplained weight loss
- Night sweats
- Fever

Proceed with additional evaluation to exclude active tuberculosis disease including tuberculin skin testing, chest x-ray, and sputum evaluation as indicated.

2. Tuberculin Skin Test (TST)
(TST result should be recorded as actual millimeters (mm) of induration, transverse diameter; if no induration, write “0”. The TST interpretation should be based on mm of induration as well as risk factors.)*

Date Given: ____/____/____  Date Read: ____/____/____
M D Y M D Y

Result: ________ mm of induration  **Interpretation: positive____ negative____

Date Given: ____/____/____  Date Read: ____/____/____
M D Y M D Y

Result: ________ mm of induration  **Interpretation: positive____ negative____

**Interpretation guidelines

>5 mm is positive:
- Recent close contacts of an individual with infectious TB
- Persons with fibrotic changes on a prior chest x-ray, consistent with past TB disease
- Organ transplant recipients and other immunosuppressed persons (including receiving equivalent of >15 mg/d of prednisone for >1 month.)
- HIV-infected persons

>10 mm is positive:
- Recent arrivals to the U.S. (<5 years) from high prevalence areas or who resided in one for a significant* amount of time
- Injection drug users
- Mycobacteriology laboratory personnel
- Residents, employees, or volunteers in high-risk congregate settings
- Persons with medical conditions that increase the risk of progression to TB disease including silicosis, diabetes mellitus, chronic renal failure, certain types of cancer (leukemias and lymphomas, cancers of the head, neck, or lung), gastrectomy or jejunooileal bypass and weight loss of at least 10% below ideal body weight.

>15 mm is positive:
- Persons with no known risk factors for TB who, except for certain testing programs required by law or regulation, would otherwise not be tested.

* The significance of the travel exposure should be discussed with a health care provider and evaluated.

3. Interferon Gamma Release Assay (IGRA)

Date Obtained: ____/____/____ (specify method) QFT-GIT T-Spot other_____  
Result: negative___ positive___ indeterminate___ borderline___ (T-Spot only)

Date Obtained: ____/____/____ (specify method) QFT-GIT T-Spot other_____  
Result: negative___ positive___ indeterminate___ borderline___ (T-Spot only)

4. Chest x-ray: (Required if TST or IGRA is positive)

Date of chest x-ray: ____/____/____  Result: normal____ abnormal_____  

Part III. Management of Positive TST or IGRA

All students with a positive TST or IGRA with no signs of active disease on chest x-ray should receive a recommendation to be treated for latent TB with appropriate medication. However, students in the following groups are at increased risk of progression from LTBI to TB disease and should be prioritized to begin treatment as soon as possible.

- Infected with HIV
- Recently infected with M. tuberculosis (within the past 2 years)
- History of untreated or inadequately treated TB disease, including persons with fibrotic changes on chest radiograph consistent with prior TB disease
- Receiving immunosuppressive therapy such as tumor necrosis factor-alpha (TNF) antagonists, systemic corticosteroids equivalent to/greater than 15 mg of prednisone per day, or immunosuppressive drug therapy following organ transplantation
- Diagnosed with silicosis, diabetes mellitus, chronic renal failure, leukemia, or cancer of the head, neck, or lung
- Have had a gastrectomy or jejunoileal bypass
- Weigh less than 90% of their ideal body weight
- Cigarette smokers and persons who abuse drugs and/or alcohol

**Populations defined locally as having an increased incidence of disease due to M. tuberculosis, including medically underserved, low-income populations**

______Student agrees to receive treatment  
______Student declines treatment at this time

_________________________________________________________          ______________________________
Health Care Professional Signature                       Date

WPI Health and Wellness Services  
100 Institute Road  
Worcester, Ma. 01609  
p. 508-831-5520  
f. 508-831-5953