

EXPOSURE TO TUBERCULOSIS

Information for Managers

- **Summary for Immediate action:**
 - **Begin the process for airborne isolation procedures in a negative pressure room and the use of a fitted N-95 mask upon room entry**
 - **Notify your Infection Control Practitioner if you have a patient who is newly diagnosed with an active Tuberculosis infection**
 - **Compile a list of names, social security numbers, and phone numbers of faculty/staff shared breathing space with this patient prior to treatment or isolation procedures and without wearing a fitted N-95 mask. The ICP will provide coordination and consultation to guide the identification process.**
 - **Transmission is via airborne spread. While the risk of transmission is low, persons can contract TB from breathing air which is close to the infectious patient**
 - **Faculty/Staff may continue to work as usual, and will be screened as indicated by the Occupational Health Clinic.**
 - **Exposed Faculty/staff will require a baseline TB skin test within 3 months of the exposure date and again three months after the exposure date.**

Frequently Asked Questions

- **What is tuberculosis and how is it spread?**

Tuberculosis is an infectious disease that usually attacks the lungs but can attack any part of the body. It is caused by Mycobacterium tuberculosis. Transmission of tuberculosis is by inhalation of droplet nuclei produced when a person with infectious pulmonary or laryngeal tuberculosis coughs, laughs, sneezes, sings, or talks. If another person breathes in these droplet nuclei, there is a chance that he/she may become infected with tuberculosis.

- **What is considered to be an exposure to tuberculosis?**

A person is considered to be exposed if there is shared breathing space with someone with infectious pulmonary or laryngeal tuberculosis at a time when the infectious person is not wearing a mask and the other person is not wearing an N95 respirator. Usually a person has to be in close contact with someone with infectious tuberculosis for a long period of time to become infected; however, some people do become infected after short periods, especially if the contact is in a closed or poorly ventilated space.

- **What should you do if your staff members are exposed?**

If your staff members are exposed to someone with infectious tuberculosis and have never had a positive reaction to the tuberculin (TB) skin test, they should have a baseline test within 3 months prior to the exposure date. If they have not had a test result documented within the past 3 months they should have one placed as soon as possible after the exposure, preferably within two weeks. This skin test should be read in 48-72 hours. If it is negative, they should repeat this process three months after the exposure.

If they are exposed to someone with infectious tuberculosis and have had a positive reaction to the TB skin test in the past, they should not repeat it since it should still remain positive. Also, they do not need a chest X-ray if they are exposed. They only need to repeat the chest X-ray if they develop signs and symptoms of active tuberculosis (cough lasting for more than three weeks, bloody sputum, fever, night sweats, weight loss, loss of appetite, fatigue).

- **What is the incubation period of tuberculosis?**

From infection to development of a positive TB skin test reaction (the incubation period) is approximately 2 to 10 weeks. The risk for developing active disease is the highest in the first two years after infection and development of a positive TB skin test reaction.

- **What if the tuberculin skin test is positive after a staff member has been exposed?**

After an exposure to infectious tuberculosis, a TB skin test reaction of 5 mm induration or greater is considered positive. He/she will then be evaluated for signs and symptoms of active tuberculosis (cough lasting for more than three weeks, bloody sputum, fever, night sweats, weight loss, loss of appetite, fatigue). If none of these are present, he/she will have a chest X-ray taken. If there is no indication that he/she has active infectious tuberculosis, he/she will be considered to have latent tuberculosis and evaluated to determine if taking prophylactic isoniazid (INH) is appropriate. If he/she has latent tuberculosis, he/she is not contagious and cannot pass the tuberculosis germ to other people.

If signs or symptoms of active tuberculosis are present or if the chest X-ray is abnormal, the staff member will be referred to a pulmonologist or infectious disease specialist for further evaluation. The staff member may need to be furloughed until this evaluation takes place.

- **What if the exposure occurs at work?**

In the event of an exposure within the Medical Center, Infection Control will notify the VOHC (Vanderbilt Occupational Health Clinic, Room 640 Medical Arts Building, phone 936-0955) of the faculty/staff members who have been exposed. The Infection Control Practitioner will assist the manager to develop a list of the full names, social security numbers, and, in some instances, phone numbers of all exposed personnel; you (the manager) may be asked to provide or confirm this information for the ICP.

The VOHC will determine the date of each exposed faculty/staff member's last TB skin test. If the faculty/staff member has had a negative skin test within the past three months, he/she will be notified of the exposure and of the need to have a TB skin test in three months. If the faculty/staff member is TB skin test negative but has not had one within the past three months, he/she will be notified of the exposure and of the need to have a baseline skin test as soon as possible and to repeat it in three months if negative. If the faculty/staff member has had a positive TB skin test in the past, no action is necessary.

In the event that the staff member develops a positive TB skin test (and latent TB infection) following an exposure at work, you (the manager) need to complete a Tennessee First Report of Work Injury and forward this to the Office of Risk Management (Room 610 Oxford House, phone 936-0660). This form does not need to be completed if the staff member remains PPD negative at the 3-month follow-up.

You (the manager) will be notified of any staff member who fails to have appropriate TB skin testing following an exposure that occurs at work.

- **Where can a staff member have the TB skin test placed and read and when does this need to be done?**

A staff member may have a TB skin test placed and read at the VOHC between 7:30 AM and 5:30 PM, Monday-Friday, or on the patient care unit by someone who has completed the TB skin test training session. Following an exposure, if you prefer to test on your unit, you should call 936-0955 to arrange for testing supplies. The following schedule is recommended for testing: (for all contacts who are previously TB skin test negative)

1. Baseline TB skin test placed and read either within 3 months prior to the exposure date
2. If they have do not have a documented result in the previous 3 months they should be tested as soon as possible (within two weeks) following the exposure
3. Follow-up TB skin test placed and read three months following the exposure (for those whose baseline skin test was negative)

If the testing is performed on the unit, VOHC must receive a copy of the placement and reading. If the TB skin test is read on the unit and is reddened or swollen at 48-72 hours, the staff member must come to VOHC for further assessment.

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