

Tuberculosis Exposure Control Plan

CHAPTER 5.3

Issued: October 2002 Revised: January 2018, July 2021

Submitted by: Health/Safety Officer

Approved by: Chief of Fire Rescue

Overview of Control Plan

- The purpose of this plan is to establish guidelines and policies for reducing the risk of transmission of TB to employees. The TB Exposure Control Plan is available to all employees on the county intranet. Mycobacterium Tuberculosis is carried in airborne particles, or droplet nuclei, that can be generated when persons who have pulmonary or laryngeal TB sneeze, cough, speak, or sing. The particles are an estimated 1-5 Micron in size, and normal air currents can keep them airborne for prolonged time periods and spread them throughout a room or building. Infection occurs when a susceptible person inhales droplet nuclei containing TB, and these droplet nuclei traverse the mouth or nasal passages, upper respiratory tract, and bronchi to reach the alveoli of the lungs.

Fundamentals of Tuberculosis Exposure Control Program

- An effective TB infection control program requires early identification and isolation of persons who have active TB. The primary emphasis of this TB Exposure Control Plan is to achieve these goals by three measures: A) The use of administrative measures to reduce the risk for exposure to persons who have infectious TB; B) The use of engineering controls to prevent the spread of the infectious droplet nuclei; C) The use of personal respiratory protective equipment (N95 masks) where there is a risk for exposure to tuberculosis.

Responsibilities of Health/Safety Officer

- Insure that personal respiratory protection equipment is available in accessible locations, used by personnel when appropriate, and stored properly when not in use.
- Maintain records regarding PPD testing and compile yearly analysis of conversion rates and exposures.
- Coordinate and implement all required in-services, training and education for respiratory users. Maintain records of all educational in-services received regarding respiratory policies and protocols for all personnel.
- Upon verification of any staff PPD conversion, the development of signs/symptoms consistent with suspected TB, or the development of a positive pulmonary MTB culture in a member, the Health/Safety Officer will determine the policies, protocols or procedures needing to be modified.
- Work with expert medical resources in the community to insure that all policies and protocols meet current Federal and State regulations and appropriate medical policies and procedures.

Student Responsibilities

- Students must wear N95 Masks as directed by the Officer in Charge.

Education and Training of Employees

- All employees will receive education regarding TB that is relevant to their response protocol. The need for additional training will be reevaluated annually. The training will address the following elements as listed in the Centers for Disease Control and Prevention's Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities, 1994 and other appropriate medical guidelines.

Screening and Evaluation

- Screening and Evaluation of personnel will include the following points: The relationship between TB and HIV infection (or any immunocompromised condition that personnel may have). The need to follow infection control recommendations. Any employee who has a persistent cough (i.e. a cough lasting >3 weeks), especially in the presence of other signs or symptoms compatible with active TB (e.g. weight loss, night sweats, bloody sputum, anorexia, or fever) should be evaluated promptly for TB. The employee should not return to the work place until diagnosis of TB has been excluded or that individual is on therapy and a determination has been made that that person is non-infectious. All employees with newly recognized positive PPD tests will be evaluated promptly for active TB. Following any significant exposure to M. Tuberculosis, employees will be sent for baseline testing and any follow up test or treatment as recommended by the ACPHU. It should be noted that under the Presumptive Illness legislation, employees who are diagnosed after January 1, 1996 to have TB will be presumed to have become infected while performing duties for ACFR; however, they may be required to produce baseline testing demonstrating non-infection prior to that exposure. Baseline PPD testing will be done on all new employees at time of hire. The Alachua County Public Health Unit will be the designated Medical facility to handle employees diagnosed with TB.

Respiratory Protection Program

- To prevent transmission of infectious airborne agents.
- As outlined in the introduction, tuberculosis is an infectious airborne disease. The N95 Mask will be worn whenever there is confirmation or a suspicion due to a patient's medical history or physical condition that an airborne infectious disease exists. If a patient has obvious droplet expression due to coughing or sneezing, for example, an N95 mask should be worn. In addition, the attached Patient Medical History Evaluation provides assessment criteria which will assist in making the decision of whether or not a mask should be worn. If worn, it should be worn for the duration of patient care and treatment after being donned.

Transport Issues

If a patient is transported who is suspected to have TB, decontamination of airborne particulates will be done by:

- Allowing circulation of outside air during transport when possible. Opening doors of rescue unit when at hospital during transfer of patient. This will allow sufficient air exchange to eliminate airborne contamination. If patient secretions caused any contamination on surfaces of the rescue unit or equipment that is non-disposable, clean and disinfect with Department disinfectant.
- The unit to AeroClave the patient compartment of the rescue unit per guidelines.

The following questions will be asked of any patient presenting with a cough which has persisted for longer than two weeks. Have you experienced any of the following: (YES) or (NO)

- Coughing up blood? (Y/N)
- Weight Loss? (Y/N)
- Decreased appetite? (Y/N)
- Persistent fever? (Y/N)
- Night Sweats? (Y/N)
- Worked with anyone with symptoms as above? (Y/N)
- Had a positive TB test? (Y/N)
- Been treated for TB? (Y/N)

Have a condition that could weaken your immune system (i.e. cancer, kidney disease, HIV, AIDS, receiving cortisone or steroid therapy, receiving chemotherapy, diabetes, alcoholism, Silicosis, had stomach surgery or is an organ transplant recipient). (Y/N)

If "yes" to any of the above questions a respirator should be worn for the duration of that patient's treatment and transport.