

ADOPTED: January 1, 2016

REVISED:

A. Overview of Control Plan**1. Purpose**

The purpose of this plan is to establish guidelines and policies for reducing the risk of transmission of TB to district personnel. The TB Infection Control Plan is available to all district personnel at all times. District personnel are advised of this availability during orientation and mandatory annual update education/training sessions.

2. Fundamentals of Tuberculosis Infection Control Program

A. An effective TB infection control program requires early identification and isolation of persons who have active TB. The primary emphasis of this TB Infection Control Plan is to achieve these goals by three measures: The use of administrative measures to reduce the risk of infection to personnel and patients, the use of engineering controls to prevent the spread and reduce the concentration of infectious droplet nuclei, and the use of personal respiratory protective equipment where there is a risk for Infection to *M. tuberculosis*.

B. Specific steps taken to reduce the risk of transmission of *M. tuberculosis* will be: Assign to specific persons the supervisory responsibility for designing, implementing, evaluating, and maintaining the TB Infection Program. Develop and implement policies and protocols to ensure early identification of patients who may have infectious TB. Develop, implement, maintain, and evaluate a respiratory protection program. Educate and train personnel about TB, effective methods for preventing transmission of TB, and the benefits of medical screening programs. Develop and implement a program for routine periodic counseling and screening of personnel for active TB and latent TB infection

B. Responsibilities of Infection Control Officer

1. List all tasks and procedures where occupational Infection may occur and the personnel who perform these tasks.
2. Insure that personal respiratory protection equipment is available in accessible locations, used by personnel when appropriate, and stored properly when not in use.
3. Monitor and evaluate employee compliance by observation of work practices related to appropriate use of respiratory equipment.
4. Initiate, review and continue to implement the PPD testing program.
5. Maintain records regarding PPD testing.
6. Compile yearly analysis of conversion rates and Infections.
7. Coordinate and implement all required in-services for applicable personnel.
8. Coordinate and implement training and education for respiratory users.
9. Maintain records of all educational in-services received regarding respiratory policies and protocols for all personnel.
10. Upon verification of any news of any staff PPD conversion, of the development of signs/symptoms consistent with suspect TB, or the development of a positive

pulmonary MTB culture in a member, the Health/Safety Officer will determine if the policies, protocols or procedures need to be modified.

11. 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.

C. TB Education and Training of District Personnel.

1. All district personnel will receive education regarding TB that is relevant to their response protocol. The need for additional training will be evaluated annually.
2. The training will address the following elements as listed in the Centers for Disease Control and Prevention's Guidelines For Preventing the Transmission of Mycobacterium Tuberculosis in Health-Care Facilities, 1994.U:
3. The basic concepts of M. tuberculosis transmission, pathogenesis, and diagnosis, including the difference between latent TB infection and active TB disease, the signs and symptoms of TB, and the possibility of re-infection.
4. The potential for occupational infection to person who have infectious TB in the community and situations with increased risk for Infection to M. tuberculosis.
5. The principles and practices of infection control that reduce the risk for transmission of M. tuberculosis, including information concerning the hierarchy of TB infection-control measures and the written policies and procedures.
6. The purpose of PPD skin testing, the significance of a positive PPD test result, and the importance of participating in the skin-test program.
7. The principles of preventive therapy for latent TB infection. These principles include indications, use effectiveness, and potential adverse effects of the drugs.
8. District personnel responsibility to seek prompt medical evaluation if a PPD test conversion occurs or if symptoms develop that could be caused by TB. Medical evaluation will enable personnel who have TB to receive appropriate therapy and will help to prevent transmission of M. tuberculosis to patients and other personnel.
9. The principles of drug therapy for active TB.
10. The responsibilities of ACFR to maintain the confidentiality of the employee while ensuring that the employee who has TB receives appropriate therapy and is noninfectious before returning to duty.
11. The higher risks associated with TB infection in persons who have HIV infection or other causes of severely impaired cell-mediated immunity, including:
12. The frequent and rapid development of clinical TB after infection with M. tuberculosis.
13. The differences in the clinical presentation of disease.
14. The high mortality rate associated with MDR-TB in such persons.
15. The potential development of cutaneous anergy as immune function declines.
16. Information regarding the efficacy and safety of BCG vaccination and the principles of PPD screening among BCG recipients.

D. Personnel Counseling, Screening and Evaluation

Counseling of personnel will include the following points:

1. The relationship between TB and HIV infection (or any immuno-compromising condition that personnel may have).
2. The need to follow infection control recommendations: Any district personnel who have 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 district personnel should not return to the work place until a 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 or volunteers with newly recognized positive PPD tests will be evaluated promptly for active TB.
3. The Marion County Public Health will be the designated Medical facility to handle employees diagnosed with TB.

E. Respiratory Protection Program

The goal of this program is to prevent transmission of infectious airborne agents such as tuberculosis. Other infectious diseases may be prevented by the use of a respirator and should be considered if a patient's medical history and physical evaluation indicate the possible presence of an infectious disease.

1. Mask Use Indication: The respirator shall be worn when 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, a mask should be worn. In addition, the Patient Medical History Evaluation under E provides assessment criteria, which will assist in making the decision of whether or not a mask should be worn. Once donned, it should be worn for the duration of patient care and treatment.
2. Procedure Guidelines:
 - a. Putting on the mask.
 - b. Obtain the mask in the appropriate size as determined by FIT testing.
 - c. Remove the mask from its wrapper.
 - d. Hold the respirator in its flat, folded format. Keeping the respirator closed, bend the nose clip around your finger to form a shape that matches your nose. Then bend the ends of the nose clip so that they have a slight upward flare. Open the respirator carefully so that there is minimal handling inside the respirator.
 - e. Pull the lower portion of the headband strap so that it hangs longer than the upper portion of the strap. The upper portion of the strap should be against the nose clip. Remove any twists in the strap. Hook the respirator under your chin and stretch the lower portion of the strap over your head. Position the strap around your neck.
 - f. Slip the portion of the strap that is against the nose clip over your head. Position it high on your head and above your ears. Adjust straps so there is equal tension.
 - g. Use your fingers to shape the nose clip so that the respirator seals over your nose.
 - h. Ensure that the respirator fits and that it seals against your face.

- i. To check the fit, place both hands completely over the respirator and exhale forcefully. A positive pressure should be felt inside the respirator. If air escapes around the nose, readjust the nose clip. If air leaks at the respirator edges, adjust the straps to obtain a better fit. If unable to achieve a proper fit DO NOT ENTER the contaminated area.
 - j. Remove the mask from the face by using the head strap only.
 - k. Discard the mask into the appropriate biomedical waste receptacle if it has:
 - I. Been used with a patient with documented respiratory infection.
 - II. Been contaminated with blood or OPIM
 - III. Been damaged so that the structural integrity is compromised.Wash hands either with soap and water or a waterless hand cleaner at the completion of patient care. Hands should be washed with soap and water at completion of treatment or call.
3. Additional Considerations:
- a. In areas where sinks are not readily available, a waterless antiseptic hand cleaner may be. If hands are visibly soiled wash with soap and water at first opportunity.
 - b. Be certain to put your mask on before entering the area surrounding the patient when a potential infectious respiratory Infection exists.
 - c. Be sure that the mask covers the nose and mouth while performing treatment or services for the patient.
 - d. If the facemask becomes wet, change it. Masks become ineffective when moist.
 - e. Do not let the facemask hang around the neck.
 - f. Wash hands before changing a facemask.
 - g. Do not remove the mask while performing treatment or services for the patient.
 - h. Do not use with beards or other facial hair or conditions that prevent direct contact between the face and the edge of the respirator.
- F. PPD Testing Program
1. All district personnel are required to have a PPD test for tuberculosis done on an annual basis. The Jefferson Rural Fire Protection District pays for the test.
 2. Following any significant Infection to TB, responders will be sent for baseline testing and any follow up tests or treatment as recommended by the Physician. It should be noted that under the Presumptive Illness legislation, district personnel who are diagnosed after January 1, 1996 to have TB, the member should be presumed to be infected while performing duties for Jefferson Fire District; however, they may be required to produce baseline testing demonstrating non-infection prior to that Infection. Therefore, annual baseline testing should be done.
 3. Patient Medical History Evaluation to Determine Respirator Use; 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 | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | Coughing up blood |
| <input type="checkbox"/> | <input type="checkbox"/> | Weight Loss |
| <input type="checkbox"/> | <input type="checkbox"/> | Decreased appetite |
| <input type="checkbox"/> | <input type="checkbox"/> | Persistent fever |
| <input type="checkbox"/> | <input type="checkbox"/> | Night Sweats |
| <input type="checkbox"/> | <input type="checkbox"/> | Worked with anyone with symptoms as above |
| <input type="checkbox"/> | <input type="checkbox"/> | Had a positive TB test |
| <input type="checkbox"/> | <input type="checkbox"/> | Been treated for TB |
| <input type="checkbox"/> | <input type="checkbox"/> | 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, or had stomach surgery.) |

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

Infection control cleaning schedules

Articles and equipment	Dispose in biohazard container	Dispose in biohazard sharps container	Cleanse using soap and water	Disinfect using DMQ or Phenol Plus	Hibiclens	Laundry detergent and water
Airways	Yes					
Blood Pressure Cuffs			Yes			
Backboards			Yes	Yes		
BVMs	Yes					
Bunker Gear						Yes
Cervical Collars	Yes					
Dressings	Yes					
Electronic Equipment				Yes		
Head blocks	Yes					
Laryngoscope Blades					Yes	
Monitors/Defib				Yes		
Linen						Yes
O2 Tanks and Regulators			Yes	Yes		
Needles		Yes				
Portable Kits				Yes		
PASG			Yes			
Restraints			Yes			
Scissors and Stethoscopes			Yes	Yes		

OG 400.2.2**TUBERCULOSIS INFECTION
CONTROL PLAN**

Traction Splints			Yes	Yes		
Stretcher			Yes	Yes		
Suction Canisters	Yes					
Suction Unit			Yes	Yes		
Uniforms						Yes