TUBERCULOSIS INFECTION

CONTROL PLAN

(TBICP)

UNIVERSITY OF CLINICAL HEALTH

OPHTHALMOLOGY

UCH - Ophthalmology, Cordova Office
8001 Centerview Parkway, Suite 101
Cordova, Tennessee 38018-4260
I. Purpose

As a worker in a health care facility you (the employee) are deemed to be at risk for becoming infected with the Tubercle bacillus (TB). The Occupational Safety and Health Act of 1970 (Public Law 91 - 596) attempts "to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources." The Act requires that the Director of the National Institute for Occupational Safety and Health (NIOSH) "shall develop criteria...which will describe exposure levels...at which no worker will suffer impaired health or functional capacities or diminished life expectancies as a result of his (or her) work experience."

Recent experience has indicated the desirability of instituting new guidelines for prevention of exposure to TB in health care facilities. Because your employer wishes you to have a safe and healthy work environment, the following Tuberculosis Infection Control Plan (TBICP) has been implemented.

II. General Outline

The TBICP is based on three (3) levels of control. These are listed below in the order of their application.

1. Reduce exposure risk
   a. Rapid detection
   b. Isolation of patients
   c. Diagnosis
   d. Treatment

2. Engineering controls
   a. Direct source control
   b. Prevention of contamination of adjacent areas
   c. Removal of contaminated air
   d. Air cleaning
      (1) Filtration
      (2) Ultra violet germicidal irradiation (UVGI)

3. Personal Respiratory Protective Equipment (PRPE)

III. Responsibility

The person responsible for the implementation and maintenance of the TBICP in this office is William R. Morris, MD, OSHA Coordinator. Kathleen Cruzen is the Deputy.
IV. Written Plan

A copy of the TBICP is furnished to you at the time the plan is implemented or at the time your employment begins. You should review the contents of the plan and verify your understanding and acceptance of the plan by signing the Employee Confirmation Form that will be furnished to you. Questions about the plan should be directed to the employer's OSHA Coordinator. Be sure you understand your part in protecting you and your co-workers from TB and your employer from OSHA sanctions.

A written copy of the TBICP is located in the UCH – Ophthalmology, Cordova Office in the Procedure Room and is available for inspection during regular business hours. Access is also possible at: http://uthsc.edu/eye/osha/

V. Risk Assessment

A. Initial Risk Assessment

This office (UCH- Ophthalmology) delivers health care to patients with complaints related to the eye and its adnexa. The physicians employed in this office ONLY accept and treat patients with diseases affecting this limited portion of the body. NO PATIENTS ARE TREATED IN THIS OFFICE FOR GENERAL MEDICAL COMPLAINTS.

Due to the extremely low rate of ocular and adnexal involvement by the Tubercle Bacillus, the risk of becoming infected with TB while working in this office is QUITE LOW.

At the present time the physicians are treating NO cases of active TB.

Although the risk is extremely low, OSHA regulations require certain procedures to minimize the risk of becoming infected with TB.

There are NO inpatient beds in this facility for admitting patients.

In view of the previously documented conditions, your employer has assigned a Risk Assessment Level of "EXTREMELY LOW" for this office.

B. Follow-up Risk Assessment

At yearly intervals the following parameters will be evaluated in order to determine the need for revising the Risk Assessment Level:

1. PPD conversions among employees:
   a. Analyze PPD conversion rates for employees.
   b. Determine if PPD conversion rate is different in areas where TB patients are
located from areas in which there are no TB patients.

c. Determine if PPD conversion rate is greater in each area of the office when compared with the preceding rate in the same area.

d. Determine if there are clusters of PPD conversions - that is, two or more PPD conversions in one area or in a single occupational group that works in multiple areas over a 3 month period.

e. Seek out evidence of patient-to-patient transmission of TB.

2. Number of TB patients seen per year

VI. Detection Methods

TB skin testing

Based on MMWR, December 30, 2005 and the fact that the Hamilton Eye Institute is an extremely low-risk healthcare environment, annual skin-testing for tuberculosis will not be carried out unless a known exposure risk is identified. - reference page 12.

VII. Engineering Controls

A. General ventilation

Since patients suspected of having TB will not be allowed in the general waiting area, no additional precautions will be needed other than the general good ventilation engineering controls commonly applied to office construction.

B. No special ventilation rooms are provided in these offices.

VIII. Respiratory Protection

Since no infectious TB patients will be seen in the office, no respiratory protective devices will be used.

IX. Cough-Inducing Procedures

No cough-inducing procedures are performed in this office.

X. Education and Training of Health Care Workers

Education of employees regarding tuberculosis (TB) will be a part of the training of all employees. The following subjects will be covered during routine training sessions at the time the employee is hired and on an annual basis thereafter.

1. The basic concepts of TB 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 reinfection in persons with a positive PPD test.

2. The potential for occupational exposure to persons with infectious TB in the health care facility, including the prevalence of TB in the community and facility, the ability of the facility to appropriately isolate patients with active TB, and situations with increased risk of exposure to TB.

3. The principles and practices of infection control that reduce the risk of TB transmission, including the hierarchy of TB infection control measures and the written policies and procedures of the facility. Site-specific control measures should be provided to personnel in areas needing measures in addition to the basic control program.

4. The purpose of PPD testing, the significance of a positive result, and the importance of participation in the skin test program.

5. The principles of preventive therapy for latent TB infection. Indications, use, and effectiveness including the potential adverse effects of the drugs.

6. The responsibility of the health care worker to seek medical evaluation promptly if symptoms develop that may be due to TB or if PPD test conversion occurs in order to receive appropriate evaluation and therapy and to prevent transmission of TB to patients and other health care workers.

7. The principles of drug therapy for active TB.

8. The importance of notifying the facility (OSHA Coordinator) if diagnosed with active TB so appropriate contact investigation can be instituted.

9. The responsibilities of the facility to maintain the confidentiality of the health care worker while ensuring that the health care worker with TB receives appropriate therapy and is non-infectious before returning to duty.

10. The higher risk posed by TB to individuals with HIV infection or other causes of severely impaired cell-mediated immunity including (1) the more frequent and rapid development of clinical TB after infection with M. tuberculosis; (2) the differences in the clinical presentation of the disease; and (3) the high mortality rate associated with MDR-TB disease in such individuals.

11. The potential development of cutaneous energy (sic) as immune function, measured by CD4+ T-lymphocytes counts, declines. (Correct term is anergy.)

12. The facility's policy on voluntary work reassignment for immunocompromised health care workers should be explained.
**TUBERCULOSIS (TB) INFECTION CONTROL PLAN**  
*Annual Training Session Check List*

<table>
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13. The opportunity to ask questions regarding the TBICP

Signed _________________________________ Date ____________
William R. Morris, MD - OSHA Coordinator
SUMMARY SHEET - SKIN TEST CONVERSION

Total Number of Employees ________________________________

Cordova _______________________________________________

Medical Plaza __________________________________________

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Total Number of Skin Test Conversions _______________________

Cordova _______________________________________________

Medical Plaza __________________________________________

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Percentage of Employee Skin Test Conversions ________________

Cordova _______________________________________________

Medical Plaza __________________________________________

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Total Number of TB Patients Treated _________________________

Cordova _______________________________________________

Medical Plaza __________________________________________

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Form Completed by __________________ Date ________________

William R. Morris, MD - OSHA Coordinator
## SUMMARY OF CONVERSION RATES PER YEAR

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Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005

**TB Screening Procedures for Settings (or HCWs) Classified as Low Risk**

- All HCWs should receive baseline TB screening upon hire, using two-step TST or a single BAMT to test for infection with *M. tuberculosis*.
- After baseline testing for infection with *M. tuberculosis*, additional TB screening is not necessary unless an exposure to *M. tuberculosis* occurs.
- HCWs with a baseline positive or newly positive test result for *M. tuberculosis* infection (i.e., TST or BAMT) or documentation of treatment for LTBI or TB disease should receive one chest radiograph result to exclude TB disease (or an interpretable copy within a reasonable time frame, such as 6 months). Repeat radiographs are not needed unless symptoms or signs of TB disease develop or unless recommended by a clinician (39,116).