



# TUBERCULOSIS INFORMATION

## - Infection Control

CDC is not a regulatory agency, thus CDC recommendations on infection control are not regulations. For regulations in your area, contact your state or local Occupational Safety and Health Administration (OSHA).

### Overview of Infection Control Measures

An effective infection control program requires the early detection of TB and the prompt isolation and treatment of persons with TB. The primary emphasis of the TB infection control plan should be on achieving these three goals. In all health-care facilities, particularly those in which persons who are at high risk for TB work or receive care, policies and procedures for TB control should be developed, reviewed periodically, and evaluated for effectiveness to determine the actions necessary to minimize the risk for transmission of *M. tuberculosis*.

The TB infection control program should be based on a hierarchy of control measures. The first level of the hierarchy, and that which affects the largest number of persons, is using administrative measures intended primarily to reduce the risk of exposing uninfected persons to persons who have infectious TB. These measures include (a) developing and implementing effective written policies and protocols to ensure the rapid identification, isolation, diagnostic evaluation, and treatment of persons likely to have TB; (b) implementing effective work practices among health care workers in the health-care facility (e.g., correctly wearing respiratory protection and keeping doors to isolation rooms closed); (c) educating, training, and counseling health care workers about TB; and (d) screening health care workers for TB infection and disease.

The second level of the hierarchy is the use of engineering controls to prevent the spread and reduce the concentration of infectious droplet nuclei. These controls include (a) direct source control using exhaust ventilation, (b) controlling the direction of airflow to prevent the contamination of air in areas adjacent to the infectious source, (c) diluting and removing contaminated air via general ventilation, and (d) cleaning the air via air filtration or ultraviolet germicidal irradiation.

The first two levels of the hierarchy minimize the number of areas in the health-care facility where exposure to infectious TB may occur, and they reduce, but do not eliminate, the risk in those few areas where exposure to *M. tuberculosis* can still occur (e.g., rooms in which patients with known or suspected infectious TB are being isolated and treatment rooms in which cough-inducing or aerosol-generating procedures are performed on such patients). Because persons entering such rooms may be exposed to *M. tuberculosis*, the third level of the hierarchy is the use of personal respiratory protective equipment in these and certain other situations in which the risk for infection with *M. tuberculosis* may be relatively higher. For current guidelines on respiratory protection, please order CDC Fax Document #250135, Respiratory Protection, or order the complete infection control guidelines.

### Determining the Infectiousness of TB Patients

In general, patients who have suspected or confirmed active TB should be considered infectious if (a) they are coughing, they are undergoing cough-inducing procedures, or their sputum smears are positive for acid-fast bacilli; **and** (b) they are not receiving therapy, have just started therapy, or have a poor clinical or bacteriologic response to therapy.

TB patients are no longer considered infectious if

- (1) they are on adequate therapy,
- (2) they have had a favorable clinical response to therapy, **and**
- (3) they have three consecutive negative sputum smear results.

For more information

For more information about implementing CDC guidelines, call your state health department.

To order the following publication, call the CDC's Voice and Fax Information System (recording) toll free at (888) 232-3228, then press options 2, 5, 1, 2, 2 (Note: You may select these options at any time without listening to the complete message). Request the publication number of the document you would like to order. You may also visit the Division of TB Elimination's Web site at [www.cdc.gov/nchstp/tb](http://www.cdc.gov/nchstp/tb).

Publication # 00-5856. CDC. Guidelines for preventing the transmission of *Mycobacterium tuberculosis* in health-care facilities, 1994. *MMWR* 1994;43(No.RR-13).