

Infection Control

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TB Updates for the Community: Partnering to Eliminate TB
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Overview

- Recognition of Infectiousness
 - Indicators
 - Evaluation
- Increased Risk
- Discontinuing AII Precautions
- Respiratory Protection
 - Environmental
 - Masks
 - Follow Policy

**Recognition of Infectiousness
("Think TB")**

- Patients suspected or confirmed of TB disease should be considered infectious
- Initiate AII precautions if they display any signs/symptoms of TB disease (cough, fever, wt. loss)
- Manage or transfer suspects or confirmed patients to facilities capable of isolation or quarantine (triage pts if in ER or waiting area)

Recognition of Infectiousness
'Think TB' (cont'd)

- Mask symptomatic patients (includes when pt is in transport to other parts of the facility, or in waiting areas)
- Schedule these patients for procedures when a minimum number of people are present (staff/other patients)
 - Last patient of the day
- Separate immunocompromised patients from this population

"The undiagnosed patient presents the MOST risk to all in contact"

Indicators for infectiousness
(patient factors)

- Coughing > 3 weeks
- Cavitations on chest X ray
- Positive AFB sputum smear
- Respiratory tract disease involving lung, airway or larynx.
- Failure to cover mouth or nose when coughing
- Inadequate treatment.
- Undergoing cough-inducing or aerosol producing procedures.



Evaluating Infectiousness in Children

- Children usually are not infectious **but can be** on occasion and should be evaluated for infectiousness
- Use the same adult criteria to evaluate them. (Cough, cavitation, AFB +...)

Children who have typical primary TB lesion (CXR) and do not have any indicators of infectiousness DO NOT need to be in an AII room.

Evaluating Infectiousness (cont'd)

Patients with Extra pulmonary TB usually NOT infectious **unless...**

- Concomitant Pulmonary TB.
- Non Pulmonary TB located in oral cavity or larynx.
- Open abscess or lesion with high concentrate of organism.
- Patients with pleural effusion (40% culture +TB)
 - Isolate !!

Place all patients suspected or known to have infectious TB disease under AII precautions until determined to be noninfectious

Increased Risk for Infectiousness (environmental factors)

- Exposure in small, enclosed spaces
- Inadequate ventilation
- Recirculating air containing infectious droplets
- Inadequate cleaning and disinfection of equipment
- Improper specimen-handling procedures

When Can a Patient Be Released From Isolation?

- Depends on the patient and the setting
 - Hospitalized
 - Home isolation
 - Congregate care setting
- Discharge to home can occur while the patient is still in isolation

Criteria for Discontinuing *All* Precautions

- Infectious TB is unlikely and another diagnosis is made that explains the syndrome
- Or**
- Patient has 3 consecutive negative AFB sputum smear results, (collected 8 hours apart, 1 early am)
 - *MDR-TB (3 negative cultures) and*
 - Patient has received standard antituberculosis treatment (min. of 2 weeks), *and*
 - Patient has demonstrated clinical improvement

Respiratory Protection

Health Care Workers *who*

“-provide medical services in the homes of patients with suspected or confirmed infectious TB disease should instruct TB patients to observe strict respiratory hygiene and cough etiquette procedures”

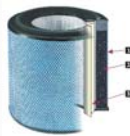
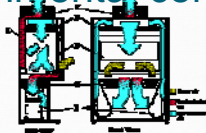
“-enter homes of persons with suspected or confirmed infectious TB disease or who transport such persons in an enclosed vehicle should consider wearing at least an N95 disposable respirator ”

Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in health-care settings (MMWR, Dec 30, 2005)

Environmental controls

- Use of exhaust and general ventilation
 - 12 air exchanges/hour, single patient rooms
 - evaluate other high risk areas
- Control of airflow
 - prevent contamination to adjacent areas (Hepa filters)
- Use of UV lights
- Monitor and maintain engineering controls

Environmental controls



Surgical Masks vs. Respirators

- Surgical Masks
 - protect the sterile field from contaminants generated by the wearer
- Respirators
 - protect the wearer from airborne contaminants generated by nearby sources (patients, procedures, etc.)

N95

A B

C D

N95

- “N” Series respirators should be replaced when the wearer senses an increase in breathing resistance due to the filters collecting particulate matter. Replace masks frequently.
- Do NOT use the respirator with beards or other facial hair that interferes with direct contact between the face and the edge of the respirator, or any other conditions that may prevent a good face-seal.

Follow Policy

- Be sure you are receiving your TST as written in your departments policy.
- Be sure you are fit tested annually
 - Fit testing ensures that you are wearing the right size mask, as well as wearing it properly.



