

Tuberculosis Care Path (For Patients Requiring Admission to Hospital)

Important note regarding negative pressure rooms:

Private negative pressure rooms are the preferred location for patients with suspected TB. If all of the existing negative pressure rooms are occupied with patients requiring airborne infection isolation, an acceptable alternative is to place the patient in a private room with a HEPA filter placed between the patient and the door of the room.

However, any patient that has sputum return **AFB smear positive** must be placed in a **negative pressure room**.

Day 1

1. Admitted through clinic, Emergency Center (EC), or direct admission
2. Presentation: assess risk factors for TB infection
 - Symptoms (night sweats, weight loss, productive cough, fever, hemoptysis)
 - History (HIV+, IV drug use, Etoh abuse, homeless, malnutrition, elderly, institutionalized, foreign-born, contact with active TB infection, immunosuppressed)
 - Radiological evidence (CXR)
3. Patient a TB suspect? If so, patient should wear a surgical mask at all times when not in private negative pressure room
 - a. Clinic – notify staff, provide patient a surgical mask and instruct on cough technique
 1. Admit to private negative pressure room
 2. Notify ambulance driver of patient's condition and transport alone
 3. Notify admitting facility
 4. Use airborne precautions
 - b. EC – notify staff
 1. Provide patient a surgical mask and instruct on cough technique
 2. Admit to negative pressure room and notify admitting nursing unit
 3. Use airborne precautions
 - c. Direct admit – notify admitting nursing unit
 1. Provide patient a surgical mask and instruct on cough technique until placed in private negative pressure room
 2. Admit to private negative pressure room
 3. Use airborne precaution
4. RN/MD Determine sputum productivity. RT is accountable.
 - a. If productive, collect sputums for AFB smear and culture every 8 hours (to include one specimen collected in the AM) until 3 acceptable specimens have been obtained
 - b. If non-productive, change order to request induced sputum specimen collection. If this is unsuccessful despite appropriate and determined attempts, consider need for bronchoscopy or, for pediatric population, obtain a gastric aspirate
5. MD writes orders to evaluate for TB – these orders should include
 - *Admit to private negative pressure room
 - * Place PPD using appropriate technique (this area should be marked so location is known for subsequent reading in 48 hrs)
 - * Sputums for AFB smear and culture every 8 hours (to include one specimen collected in AM) until 3 acceptable specimens have been obtained
 - * Microbiology lab will automatically perform NAAT on smear positive sputum specimens
 - * Initiate patient education to include airborne precautions, mask protection, and information on TB transmission
 - * Chest x-ray if not already obtained
 - * Pulmonary/Infectious Disease consult if indicated

Follow up actions:

Assess patient compliance with airborne isolation requirements.

If noncompliant, notify Infection Control and Prevention. Address reason for noncompliance. If necessary, Infection Control and Prevention will notify TB Chest Clinic and Public Health Department for quarantine letter.

If sputum is AFB smear positive:

Microbiology lab will automatically perform NAAT testing to determine if TB vs. non-TB mycobacteria. If non-TB mycobacteria is suspected, please discuss with ID consult or call Infection control and Prevention for guidelines. Continue airborne precautions.

Start on medications. Generally, a 4 drug regimen and vitamin B6 are recommended based on CDC guidelines.

Reference for current guidelines:

Centers for Disease Control and Prevention. Treatment of Tuberculosis, American Thoracic Society, CDC, and Infectious Diseases Society of America. MMWR 2003;52(No. RR-11):1-88.

If there are questions or concerns about which medications to initiate, would strongly recommend consultation of Infectious Disease or Pulmonary service.

Initiate discharge plans – see discharge planning section below.

Continue to collect a 2nd acceptable sputum specimen.

If sputum is AFB smear negative:

Confirm that 3 acceptable sputum specimens have been collected and are all AFB smear negative.

Re-assess suspicion for TB and need for airborne precautions.

If TB is still suspected, strongly recommend consultation of Pulmonary and/or Infectious Disease services.

If TB is no longer suspected, discontinue airborne isolation precautions.

Read PPD at 48-72 hours.

If negative, record measurement (mm of induration) in chart – no direct action indicated.

If positive by appropriate measurement, record extent of positivity (mm of induration). Determine further management in context of patient history, symptoms, CXR, and sputum specimens. (i.e. latent TB infection vs. active TB infection). Report positive PPD results to Infection Control and Prevention.

Other issues

How long should the patient remain on airborne infection isolation in the hospital?

Refer to Section VI of Policy No. IC5.5, “Prevention of Transmission of TB in the University Health System – TB Exposure Control Plan”. This policy is available on the Infection Control and Prevention page via UHS intranet.

Discharge planning

After the diagnosis of active TB is confirmed, the Case manager must contact the Chest Clinic (207-8823) to set up the mandatory follow-up appointment that must occur immediately after discharge.

Patient education

Confirm patient understanding of diagnosis, transmission risk, public health implications, treatment plan, and post-discharge follow up appointments. All patients with active TB must follow up with Chest Clinic (see Discharge planning above).

Contact Infection Control and Prevention with any questions regarding the TB management pathway.

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