

Hospital - TB Risk Assessment

Hospitals, Critical Access Hospitals & Inpatient Chemical Dependency Sites

Today's Date _____

Facility _____

Address _____

Phone _____ County _____

Completed by _____ Title _____

PART A - INCIDENCE OF TB

1. Does your facility accept patients with suspected or confirmed TB? _____ ; **If no, complete PARTS A, B, D, E , and Date of next TB Risk Assessment**
2. How many TB cases were in your facility in the last year, including the ED prior to diagnosis? _____
3. How many TB cases were Inpatients? _____ Outpatient? _____
4. How many TB cases in your facility in the last 5 years? _____
5. How many TB cases were reported in your county in the last year? _____
Obtain this information from your local health department or state website: <http://tb.lhs.mt.gov>
6. How many inpatient beds are in your facility? _____

Comments:

PART B - RISK CLASSIFICATION – check category that applies

Inpatient - LOW RISK _____ No TB cases
 _____ < 200 beds and < 3 pts with TB per year
 _____ ≥ 200 beds and < 6 pts with TB per year

Inpatient – MEDIUM RISK _____ < 200 beds and ≥ 3 pts with TB per year
 _____ ≥ 200 beds and ≥ 6 pts with TB per year

Inpatient – POTENTIAL ONGOING TRANSMISSION
 _____ Evidence of ongoing *M. tuberculosis* transmission

Outpatient – LOW RISK _____ No TB cases
 _____ < 3pts with TB per year

Outpatient – MEDIUM RISK _____ ≥ 3 pts with TB per year

Outpatient – POTENTIAL ONGOING TRANSMISSION
 _____ Evidence of ongoing *M. tuberculosis* transmission

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PART C - CONSIDERATIONS TO DETERMINE IF HIGHER RISK CLASSIFICATION IS NEEDED FOR CERTAIN AREAS OF YOUR FACILITY – The risk classification for your facility may be adjust to a higher level of risk based on the answers to these questions.

1. Is there a relatively high prevalence of TB disease in the community your facility serves? _____
2. Is there evidence of transmission of TB in your facility? _____
3. Is there evidence of ongoing or unresolved nosocomial transmission in your facility? _____
4. Is there a high prevalence of immunosuppressed patients or HCWs in your facility? _____
5. In the last year has your facility had any patients with drug resistant TB? _____
6. In the tables below, rate these higher risk settings for your facility:

Department	Low	Medium	Potential Ongoing Transmission
Emergency Department			
Intensive/Critical Care Units			
Surgical Suite			

Department	Medium	Potential Ongoing Transmission
Lab does manipulate TB specimens		
Bronchoscopy Suite		
Sputum Induction or Inhalation Therapy Room		
Autopsy Suite or Embalming Room		
ESRD - Dialysis Unit – <i>TST patients too!!!</i>		

PART D - TUBERCULIN SKIN TESTING – TST

1. Does your facility have a TST program for the HCWs? _____
2. Describe your facility’s TST program _____

3. Are the TST records for HCWs maintained? _____
4. Who maintains these records? _____
5. List the TST conversion rate for: (number of positive TSTs divided by number tested)

Last 12 months _____	4 years _____
2 years _____	5 years _____
3 years _____	

Comments:

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PART E - TB TRIAGE PLAN & INFECTION CONTROL PROGRAM

1. Does your facility have an AFB isolation room and does your facility accept patients with TB? _____
2. If No, where does your facility transfer TB cases? _____
3. Does your facility have a Triage Plan for confirmed or suspected TB cases? _____
4. Does this plan include Inpatient setting? _____ Outpatient setting? _____
5. Does your facility have a written TB Infection Control Program? _____
6. Does this program include Inpatient setting? _____ Outpatient setting? _____
7. The Triage Plan was last updated? _____
8. The Infection Control was last updated? _____
9. Does the Triage Plan need to be updated? _____
10. Does the Infection Control Program need to be updated? _____
11. Is there an Infection Control Committee for your facility? _____
12. Check the groups that are represented on the Infection Control Committee:

___ Infectious Disease Physicians	___ Other Physicians
___ Registered Nurses	___ Epidemiologists
___ Engineers	___ Lab personnel
___ Infection Control Practitioner	___ Employee Health
___ Occupational Health	___ Safety
___ Administrators	___ Other _____

Comments:

PART F - IMPLEMENTATION OF TB TRIAGE PLAN & INFECTION CONTROL PROGRAM

1. Who is responsible for the implementation of the Triage Plan and Infection Control Program?

2. How are these implemented? _____

3. Do the Triage Plan and Infection Control Program ensure prompt detection, airborne infection isolation, and treatment of potentially infectious TB patients? _____
4. What mechanisms are there to catch and correct lapses in infection control? (e.g. TST conversion data, patient medical records, time analysis) _____

5. Are the Triage Plan and Infection Control Program being properly implemented? _____
6. List ongoing infection control training and education available to your facility's HCWs. _____

Comments:

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PART G - ENVIRONMENTAL CONTROLS

1. Which environmental controls does your facility have in place? (check all that apply)

- local exhaust ventilation (enclosing devices, exterior devices)
- general ventilation (e.g. single-pass system, recirculation system)
- air-cleaning methods (e.g. HEPA filtration, UVGI)
- airborne infection isolation rooms (AII) (e.g. negative pressure rooms)

2. What are the actual Air Changes per Hour (ACH) and design for various rooms?

Room	ACH	Design

3. Which local exhaust ventilation devices does your facility have? (check all that apply)

- enclosing devices (lab hoods, booths for sputum induction, tents or hoods for enclosing or placing a patient in airborne infection isolation)
- exterior devices

4. What general ventilation systems are used in your facility?

- single pass system
- recirculation system
- variable air volume (VAV)
- constant air volume (CAV)
- other _____

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5. What air cleaning methods are used in your facility?

HEPA filtration

- fixed room-air recirculation systems
- portable room-air recirculation systems

UVGI

- duct irradiation
- upper-air irradiation
- portable room-air cleaners

6. How many airborne infection isolation (AII) rooms are there in your facility? _____

7. What ventilation methods are used for AII rooms?

- single-pass heating, ventilating and air conditioning (HVAC)
- recirculating HVAC systems
- fixed room-recirculating units
- HEPA filtration
- Other _____

8. Does your facility employ, have access to, or collaborate with, an environmental engineer for consultation on design specifications, installation, maintenance, and evaluation of environmental controls? Explain _____

9. Are environmental controls regularly checked and maintained with results and recorded in logs? Explain _____

10. Do AII rooms meet the recommended pressure differential of 0.01" of water column negative to surrounding structures? Explain _____

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Type of environmental control ¹	Number ²	Location in the healthcare setting ³	How often maintained? ⁴	How often evaluated?	Last evaluation date	Next evaluation date

¹ UVGI, AII room, HEPA filters, etc, in each location in the healthcare setting

² Number of UVGI units, AII rooms, etc., in each location in the healthcare setting

³ Emergency department, inpatient rooms, outpatient areas, waiting rooms, bronchoscopy suites, sputum induction rooms, etc.

⁴ Daily, weekly, monthly, annually, etc.

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PART H - PERSONAL RESPIRATORY PROTECTION PROGRAM

1. Does your facility have a personal respiratory protection program? _____

2. Which HCWs are included in the personal respiratory protection program?

<input type="checkbox"/> Physicians	<input type="checkbox"/> Mid-level practitioners (NP, PA)
<input type="checkbox"/> Nurses	<input type="checkbox"/> Respiratory Therapists
<input type="checkbox"/> Administrators	<input type="checkbox"/> Janitorial staff
<input type="checkbox"/> Transportation staff	<input type="checkbox"/> Dietary workers
<input type="checkbox"/> Housekeeping staff	<input type="checkbox"/> Others _____

3. What types of respirators are used in your facility? Include manufacturer, model, and specific application. (e.g. ABC model 1234 for bronchoscopy, DEF model ZN95 for all HCWs working with TB patients) _____

4. Is there annual respiratory protection training for HCWs? _____
5. Is there initial fit testing for HCWs? _____
6. Is there periodic fit testing for HCWs? _____ When _____
7. Describe the method of fit testing used: _____

Comments:

Date of next TB Risk Assessment _____

TB Screening Based on Risk

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Low Risk Setting

Inpatient site <200 beds & <3TB cases/year
Inpatient site \geq 200 beds & <6TB cases/year

Outpatient site <3TB cases/year
Lab does not manipulate TB specimens
No cough inducing or aerosolizing procedures

Low Risk TB Screening

- 2-step TST on hire & admit to LTC, Dialysis, Chemical Dependency units if >18 years; 1-step if \leq 18 years
- Medical evaluation, including symptom assessment & chest x-ray if TST positive or symptomatic
- Evaluate for treatment Latent TB Infection if active TB is ruled out
- No annual TST
- Annual symptoms assessment if positive TST, Latent TB Infection or prior Active TB Disease
- TST for unprotected exposure

Medium Risk Setting

Inpatient site <200 beds & \geq 3TB cases/year
Inpatient site \geq 200 beds & \geq 6TB cases/year

Outpatient site \geq 3TB cases/year
Lab manipulates TB specimens
Cough inducing or aerosolizing procedures

Medium Risk TB Screening

- 2-step TST on hire & admit to LTC, Dialysis, Chemical Dependency units if >18 years old; if \leq 18 years old
- Medical evaluation, including symptom assessment & chest x-ray if TST positive or symptomatic
- Evaluate for treatment Latent TB Infection if active TB is ruled out
- Annual TST and symptom assessment
- TST if unprotected exposure occurs

Potential Ongoing Transmission Setting

Any site where there is ongoing TB transmission -- this is a temporary classification only, warranting immediate investigation. After ongoing transmission has ceased, the setting will be reclassified as Medium Risk for at least 1 year.

Report to local health department ASAP

Potential Ongoing Transmission Screening

Testing for TB infection will need to be performed as often as necessary to determine that ongoing transmission has ended.

Report to local health department ASAP

Indications for Two- Step Tuberculin Skin Testing - TST

Employee & Resident TST Situation	Recommended TST Testing
1. No previous TST result	1. Two-step baseline TST if 18 years old (see #4 if ≤ 18 years)
2. Previous negative TST result >12 months before new employment	2. Two-step baseline TST
3. Previous documented negative TST result ≤ 12 months before employment	3. Single TST needed for baseline testing; this will be the second-step
4. ≥ 2 previous documented negative TSTs and most recent TST >12 months before employment; resident/employee is ≤ 18 years old	4. Single TST; two-step is not necessary
5. Previous documented positive TST result	5. No TST; need TB symptom screen and baseline X-ray
6. Previous undocumented positive TST result	6. Two-step baseline TST
7. Previous BCG vaccination – BCG effect on TST results usually wanes after 5 years	7. Two-step baseline TST

Definitions:

Health-care Workers (HCWs) – HCWs include all paid and unpaid persons working in health-care settings.

On Hire – The administration and reading of the first step of the employee’s TST should be completed prior to beginning work. If the first TST is negative, the second TST should be placed 1-3 weeks later. Regardless of the initial TST result, no employee should be allowed to begin work if he/she has symptoms of active pulmonary TB until a complete TB medical evaluation has been completed and TB disease has been ruled out. If a new employee has a positive TST, the employee must have a medical evaluation to rule out active TB. Initiation of treatment for LTBI to prevent progression to disease should be strongly considered. If a new employee has documentation of a previous positive TST at the time of hire, but has not completed treatment for LTBI, initiation of treatment for LTBI should be strongly considered. Any employee who does not complete treatment for LTBI should be educated about the signs and symptoms of TB, and monitored for development of symptoms of infectious TB at least annually. Facilities can use the TB Symptom Assessment Form for this purpose. If a new employee is TST positive and has completed treatment for LTBI, also monitor annually using the TB Symptom Assessment Form. If an employee has documentation of cured active TB, also monitor annually with the TB Symptom Assessment Form.

On Admit to Long-term Care, Dialysis, & Chemical Dependency Unit – The administration and reading of the resident’s first TST should be completed prior to admission. If the first TST is negative and the resident is asymptomatic for TB, the resident can be admitted and the second TST test placed 1-3 weeks later. Regardless of the first TST result, if the potential resident has symptoms consistent with TB, the resident should not be admitted until a complete medical evaluation for TB has been completed, including an x-ray and the collection of sputum specimens for bacteriological examination to rule out

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active TB disease. If the first TST is positive, the potential resident should not be admitted until a thorough medical evaluation for TB has been completed. Residents with a positive TST who have had active disease ruled out should be strongly considered for treatment of latent TB infection (LTBI) to prevent progression to disease. If treatment of LTBI is not completed, staff should be made aware of the resident's TST status without treatment for LTBI and the resident should be regularly monitored for development of symptoms of infectious TB, and at least annually using the TB Symptom Assessment Form. If a resident is TST positive and has completed treatment for LTBI, also monitor annually using the TB Symptom Assessment Form. If a resident has documentation of cured active TB, also monitor annually with the TB Symptom Assessment Form.

TB Medical Evaluation - The purpose of the medical exam is to diagnose TB disease or LTBI, and to select treatment. A medical evaluation includes a medical history, a TB symptom screen, a physical exam, and diagnostic tests as needed (e.g. TST, chest x-ray, bacteriological exams, HIV testing).

Annual Symptom Assessment - Complete this form for the following residents/employees who initially have had Active TB Disease ruled out:

1. Residents/employees with Latent TB Infection (with or without completion of therapy)
2. Residents/employees with prior Active TB Disease who have completed therapy

Chest X-ray - Employees and residents of long-term care, dialysis, or chemical dependency facilities with a positive TST who have a normal chest x-ray should not have repeat chest x-rays performed routinely. Repeat x-rays are not needed unless TB signs or symptoms develop or a clinician recommends a repeat x-ray on a case-by-case basis. Employees or residents who have Latent TB Infection, with or without treatment, or cured Active TB Disease should be evaluated annually with a symptom assessment and educated about TB signs and symptoms and the need to report such symptoms if present.

Definition of Active TB Disease vs. Latent TB Infection

Active TB Disease	Latent TB Infection (LTBI)
Symptoms – cough \geq 2-3 weeks with or without sputum production that may be bloody; chest pain; chills; fever; night sweats; loss of appetite; unexplained weight loss; weakness or easy fatigability; malaise	No symptoms
Can spread TB to others	Do not feel sick
Usually have a positive TST Chest X-ray usually abnormal	Cannot spread TB to others
Report suspect or confirmed TB to local health department immediately	Usually have a positive TST Chest X-ray normal
	Not reportable to local health department