



Tuberculosis (TB) risk assessment worksheet

This model worksheet should be considered for use in performing TB risk assessments for health-care facilities and nontraditional facility-based settings. Facilities with more than one type of setting will need to apply this table to each setting.

<p>Scoring √ or Y = Yes X or N = No NA = Not Applicable</p>

1. Incidence of TB

<p>What is the incidence of TB in your community (county or region served by the health-care setting), and how does it compare with the state and national average? What is the incidence of TB in your facility and specific settings and how do those rates compare? (Incidence is the number of TB cases in your community the previous year. A rate of TB cases per 100,000 persons should be obtained for comparison.)* This information can be obtained from the state or local health department.</p>	<p>Broward County</p> <p>Community rate: ↓ 2.1 (2020) 2.9 (2019)</p> <p>State rate: ↓ 2.6 (2020) 2.8 (2019)</p> <p>National rate: ↓ 2.7 (2020) 2.8 (2019)</p> <p>Facility rate: CY 2020 0.20 (# of confirmed diagnosed cases of TB/number of admissions) 2/10213= 0.20 per 1,000 patients</p>
<p>Are patients with suspected or confirmed TB disease encountered in your setting (inpatient and outpatient)?</p>	<p>Yes</p>

<p>If yes, how many patients with suspected and confirmed TB disease are treated in your health-care setting in 1 year (inpatient and outpatient)? Review laboratory data, infection-control records, and databases containing discharge diagnoses.</p>	<table border="1"> <thead> <tr> <th></th> <th>Suspected</th> <th>Confirmed</th> </tr> </thead> <tbody> <tr> <td>2020:</td> <td>10</td> <td>2</td> </tr> <tr> <td>2019:</td> <td>10</td> <td>3</td> </tr> <tr> <td>2018 :</td> <td>12</td> <td>0</td> </tr> </tbody> </table>		Suspected	Confirmed	2020:	10	2	2019:	10	3	2018 :	12	0
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<p>Currently, does your health-care setting have a cluster of persons with confirmed TB disease that might be a result of ongoing transmission of <i>Mycobacterium tuberculosis</i> within your setting (inpatient and outpatient)?</p>	<p>No</p>												

2. Risk Classification

<p>Inpatient settings</p>	
<p>How many inpatient beds are in your inpatient setting?</p>	<p>175</p>
<p>How many patients with MTB disease are encountered in the inpatient setting in 1 year? Review laboratory data, infection-control records, and databases containing discharge diagnoses.</p>	<p>CY 2020: 1</p>
<p>Depending on the number of beds and TB patients encountered in 1 year, what is the risk classification for your inpatient setting (≥ 200 beds)? (See Appendix C.)</p> <p>According to the CDC guidelines 2005, a “low risk” facility has less than 6 TB patients a year. A “medium risk” facility has greater than or equal to 6 confirmed cases of tuberculosis annually.</p>	<p>In CY 2020, there was 1 confirmed MTB patient cases; therefore, BHIP is classified as a “low risk” facility.</p>
<p>Does your health-care setting have a plan for the triage of patients with suspected or confirmed TB disease?</p>	<p>Yes</p>

3. Screening of HCWs for *M. tuberculosis* Infection

<p>Does the health-care setting have a TB screening program for HCWs?</p>	<p>Yes</p>
<p>If yes, which HCWs are included in the TB screening program? (Check all that apply.)</p> <ul style="list-style-type: none"> ✓ Physicians ✓ Mid-level practitioners (nurse practitioners [NP] and physician’s assistants [PA]) ✓ Nurses ✓ Administrators ✓ Laboratory workers 	<ul style="list-style-type: none"> ✓ Janitorial staff ✓ Maintenance or engineering staff ✓ Transportation staff ✓ Dietary staff ✓ Receptionists ✓ Trainees and students (Medical students-under GME; Nursing and Allied under

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<ul style="list-style-type: none"> ✓ Respiratory therapists ✓ Physical therapists Contract staff (Required by the contracting department. Records kept in contracting department) o Others _____ Construction or renovation workers (same as contract workers) ✓ Service workers 		Learning/Nursing department. Records and compliance are managed by the above departments) ✓ Volunteers
Is baseline skin testing performed with two-step TST (Tuberculin Skin Test) for HCWs?	Yes: 2020 Total # PPD administered: 672	
Is baseline testing performed with QFT (Quantiferon) or other BAMT (Blood Assay for Mycobacterium Tuberculosis) for HCWs?	No	
How frequently are HCWs tested for <i>M. tuberculosis</i> infection?	Annually during their anniversary hire period.	
Are the <i>M. tuberculosis</i> infection test records maintained for HCWs?	Yes	
Where are the <i>M. tuberculosis</i> infection test records for HCWs maintained? Who maintains the records?	Employee Health Department	
If the setting has a serial TB screening program for HCWs to test for <i>M. tuberculosis</i> infection, what are the conversion rates for the previous years? † Benchmark 1.0% (2020)-0% (2019)- 0% (2018)-0%		
Number of employee exposures	2020-0: 2019-0	

	2017: 5
Has the test conversion rate for <i>M. tuberculosis</i> infection been increasing or decreasing, or has it remained the same over the previous 5 years? (check one)	Decreasing – 2017-2018 decreased.
Do any areas of the health-care setting (e.g., waiting rooms or clinics) or any group of HCWs (e.g., lab workers, emergency department staff, respiratory therapists, and HCWs who attend bronchoscopies) have a test conversion rate for <i>M. tuberculosis</i> infection that exceeds the health-care setting's annual average?	No. While not above the annual average, there were 0 conversions this year that represents a decrease from previous years..
For HCWs who have positive test results for <i>M. tuberculosis</i> infection and who leave employment at the health setting, are efforts made to communicate test results and recommend follow-up of latent TB infection (LTBI) treatment with the local health department or their primary physician?	Yes - New hire positive skin test results are screened with a chest x-ray and are referred to their PCP or community resource for evaluation of latent TB status. This is required by day 60 after first day of employment. Employees who converted are seen by an ID physician through workers comp. If employees are terminated before they are seen and evaluated, a letter is sent by employee health to follow up with workers comp, private primary care physician or their new employee health department. Exposure follow up for employees who were terminated before the 10 th week of follow up are notified by letter to follow up with their PCP or new employee health department.

4. TB Infection-Control Program

Does the health-care setting have a written TB infection-control plan?	Yes – in the Infection Control Plan and a Broward Health policy
Who is responsible for the infection-control program?	Chief Medical Officer
When was the TB infection-control plan first written?	06/05
When the TB infection-control plan was last reviewed or updated?	3/2021

Does the written infection-control plan need to be updated based on the timing of the previous update (i.e., >1 year, changing TB epidemiology of the community or setting, the occurrence of a TB outbreak, change in state or local TB policy, or other factors related to a change in risk for transmission of <i>M. tuberculosis</i>)?	No		
Does the health-care setting have an infection-control committee (or another committee with infection control responsibilities)?	Yes		
<p>If yes, which groups are represented on the infection-control committee? (Check all that apply.)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Physicians <input checked="" type="checkbox"/> Nurses <input checked="" type="checkbox"/> Epidemiologists <input checked="" type="checkbox"/> Engineers <input checked="" type="checkbox"/> Pharmacists </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Laboratory personnel <input checked="" type="checkbox"/> Health and safety staff <input checked="" type="checkbox"/> Administrator <input checked="" type="checkbox"/> Risk assessment <input checked="" type="checkbox"/> Quality control (QC) <input checked="" type="checkbox"/> Environmental staff <input checked="" type="checkbox"/> Respiratory <input checked="" type="checkbox"/> Clinical education <input checked="" type="checkbox"/> Facilities management </td> </tr> </table>		<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Physicians <input checked="" type="checkbox"/> Nurses <input checked="" type="checkbox"/> Epidemiologists <input checked="" type="checkbox"/> Engineers <input checked="" type="checkbox"/> Pharmacists 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Laboratory personnel <input checked="" type="checkbox"/> Health and safety staff <input checked="" type="checkbox"/> Administrator <input checked="" type="checkbox"/> Risk assessment <input checked="" type="checkbox"/> Quality control (QC) <input checked="" type="checkbox"/> Environmental staff <input checked="" type="checkbox"/> Respiratory <input checked="" type="checkbox"/> Clinical education <input checked="" type="checkbox"/> Facilities management
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5. Implementation of TB Infection-Control Plan Based on Review by Infection-Control Committee

Has a person been designated to be responsible for implementing an infection-control plan in your health-care setting? If yes, list the name: ___Chairman of Infection Control Committee/ Medical Director of Epidemiology_____	Yes. Marah Lee, DO
Through what means (e.g., review of TST or BAMT conversion rates, patient medical records, and time analysis) are lapses in infection control recognized?	Review of laboratory results, outbreak investigations and other means of surveillance.
What mechanisms are in place to correct lapses in infection control?	Process improvements, outbreak investigation, literature search, multidisciplinary team work, reporting through committee process within the facility.
Based on measurement in routine QC (Quality Control) exercises, is the infection-control plan being properly implemented?	Yes
Is ongoing training and education regarding TB infection-control practices provided for HCWs?	Yes

6. Laboratory Processing of TB-Related Specimens, Tests, and Results Based on Laboratory Review

Which of the following tests are either conducted in-house at your health-care setting's laboratory or sent out to a reference laboratory?	In-house	Sent out
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Acid-fast bacilli (AFB) smears	✓	
Culture using liquid media (e.g., Bactec and MB-BacT)	✓	
Culture using solid media	✓	
Drug-susceptibility testing (completed at BH facility central lab)	✓	
Nucleic acid amplification (NAA) testing (completed at BH facility central lab)	✓	
Does the laboratory at your health-care setting or the reference laboratory used by your health-care setting report AFB smear results for all patients within 24 hours of receipt of specimen? What is the procedure for weekends?	Yes. The same process is utilized on nights and weekends as regular business hours. Laboratory will page the on call Epidemiologist to communicate positive AFB results outside of normal business hours. _____	

7. Environmental Controls

Which environmental controls are in place in your health-care setting? (Check all that apply and describe)

Environmental control

- ✓ All rooms
- ✓ Local exhaust ventilation (enclosing devices and exterior devices)
- ✓ General ventilation (e.g., single-pass system, recirculation system.)
- ✓ Air-cleaning methods (e.g., high-efficiency particulate air [HEPA] filtration and ultraviolet lighting)

What are the actual air changes per hour (ACH) and design for various rooms in the setting?

Med Surge / Tele Rooms - 6 ACPH

Emergency Department - 12 ACPH

Operating Rooms / Surgical Services – 20 ACPH

Negative Isolation Rooms – 12 ACPH

Bronchoscopy Rooms - 12 ACPH

Endoscopy Rooms – 12 ACPH

Cath Labs - 15 ACPH

Interventional Radiology Procedure Room - 15 ACPH

Which of the following local exterior or enclosing devices such as exhaust ventilation devices are used in your health-care setting? (Check all that apply)	
<input checked="" type="checkbox"/> Laboratory hoods <input checked="" type="checkbox"/> Booths for sputum induction	
What general ventilation systems are used in your health-care setting? (Check all that apply)	
<input checked="" type="checkbox"/> Single-pass system <input checked="" type="checkbox"/> Constant air volume (CAV) <input checked="" type="checkbox"/> Recirculation system	
What air-cleaning methods are used in your health-care setting? (Check all that apply)	
<u>HEPA filtration</u>	
<input checked="" type="checkbox"/> Fixed room-air recirculation systems	
<u>UVGI</u>	
<input checked="" type="checkbox"/> Portable room-air cleaners	
How many All rooms are in the health-care setting?	44 1. 3 rd floor-4 2. PCU-23 3. 5 th floor-3 4. GI 1 5. ICU 10 6. Bronc 1 7. ED Rm 2
What ventilation methods are used for All rooms? (Check all that apply)	
<u>Primary (general ventilation):</u>	
<input checked="" type="checkbox"/> Single-pass heating, ventilating, and air conditioning (HVAC) <input checked="" type="checkbox"/> Recirculating HVAC systems	
<u>Secondary (methods to increase equivalent ACH):</u>	
<input checked="" type="checkbox"/> Fixed room recirculating units <input checked="" type="checkbox"/> UVGI	
Does your health-care setting employ, have access to, or collaborate with an environmental engineer (e.g., professional engineer) or other professional with appropriate expertise (e.g., certified industrial hygienist) for consultation on design specifications, installation, maintenance, and evaluation of environmental controls?	Yes
Are environmental controls regularly checked and maintained with results recorded in maintenance logs?	Yes
Are All rooms checked daily for negative pressure when in use?	Yes

Is the directional airflow in All rooms checked daily when in use with smoke tubes or visual checks?	Yes
Are these results readily available?	Yes
What procedures are in place if the All room pressure is not negative?	Patient is transferred
Do All rooms meet the recommended pressure differential of 0.01-inch water column negative to surrounding structures?	Yes

8. Respiratory-Protection Program

Does your health-care setting have a written respiratory-protection program?	Yes						
Which HCWs are included in the respiratory protection program? (Check all that apply)	<input checked="" type="checkbox"/> Janitorial staff <input checked="" type="checkbox"/> Maintenance or engineering staff <input checked="" type="checkbox"/> Transportation staff <input checked="" type="checkbox"/> Dietary staff <input checked="" type="checkbox"/> Respiratory Therapist <input checked="" type="checkbox"/> Physicians <input checked="" type="checkbox"/> Mid-level practitioners (NPs and PAs) <input checked="" type="checkbox"/> Nurses <input checked="" type="checkbox"/> Administrators <input checked="" type="checkbox"/> Laboratory personnel <input type="checkbox"/> Contract staff <input type="checkbox"/> Construction or renovation staff <input checked="" type="checkbox"/> Service personnel						
Are respirators used in this setting for HCWs working with TB patients? If yes, include manufacturer, model, and specific application (e.g., ABC model 1234 for bronchoscopy and DEF model 5678 for routine contact with infectious TB patients).							
<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>Manufacturer</u></td> <td style="text-align: center;"><u>Model</u></td> <td style="text-align: center;"><u>Specific application</u></td> </tr> <tr> <td style="text-align: center;">3M corporation</td> <td style="text-align: center;">N-95 #1860 & 1860S</td> <td style="text-align: center;">Routine Contact with Infectious TB patients</td> </tr> </table>	<u>Manufacturer</u>	<u>Model</u>	<u>Specific application</u>	3M corporation	N-95 #1860 & 1860S	Routine Contact with Infectious TB patients	
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3M corporation	N-95 #1860 & 1860S	Routine Contact with Infectious TB patients					
Is annual respiratory-protection training for HCWs performed by a person with advanced training in respiratory protection?	Yes						
Does your health-care setting provide initial fit testing for HCWs? If yes, when is it conducted? On hire by employee health	Yes						
Does your health-care setting provide periodic fit testing for HCWs? If yes, when and how frequently is it conducted? Yearly	Yes						
What method of fit testing is used? Describe.	Hood/Taste						
<p>____ 1. Fit check: Saccharin or Bitrex fit check. Individual is asked to do normal, deep breathing; bend over; side to side and up/down head movements).</p>							

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Is qualitative fit testing used?	Yes
Is quantitative fit testing used? (Available)	No

9. Reassessment of TB risk

How frequently is the TB risk assessment conducted or updated in the health-care setting?	Yearly
When was the last TB risk assessment conducted?	04/2020
<p>What problems were identified during the previous TB risk assessment?</p> <p>1) There are some employees who refuse to shave facial hair. Facial hair prevents an adequate seal with the N-95 respirator.</p>	
<p>What actions were taken to address the problems identified during the previous TB risk assessment?</p> <p>1) Male employees who cannot be fit tested with the N95 mask by Employee Health due to facial hair are non-compliant with OSHA requirements for respiratory personal protection as an N95 mask is required to enter airborne precaution room. Nor are they compliant with the EoC Respiratory Protection and PPE policies. Managers are notified and so is the Safety Officer. Alternate patient assignments are necessary. Employees are told they can go to HR and request an ADA accommodation which can only be granted for documented religious and medical reasons. If granted, the alternate assignments are permanent as long as the employees are in the current position. If the ADA accommodation is not granted and the employee refuses to remove his beard for personal reasons only, then the employee cannot be adequately fit tested with the N95 mask and meet the job position requirements that requires the PPE consistent with airborne precautions. The employee is terminated for noncompliance.</p> <p>2) Work with Value Analysis to maintain alternate vendor options for adequate supply of N95 masks.</p>	
Did the risk classification need to be revised as a result of the last TB risk assessment?	No, last year we remained a low risk facility
<p>Recommendations:</p> <ol style="list-style-type: none"> Continue annual PPD testing and/or symptom screening and x-ray review of all employees and volunteers. Continue to closely monitor all patients admitted for suspected/known TB for appropriate isolation practices. Continue referring new employees for latent TB infection evaluation as indicated. 	



- * If the population served by the health-care facility is not representative of the community in which the facility is located, an alternate comparison population might be appropriate.
- † Test conversion rate is calculated by dividing the number of conversions among HCWs by the number of HCWs who were tested and had prior negative results during a certain period (see Supplement, Surveillance and Detection of *M. tuberculosis* infections in Health-Care Settings).