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I. Introduction

The Texas Tuberculosis Work Plan (TB Work Plan) sets forth procedures established by the Texas Department of State Health Services (DSHS) Tuberculosis and Hansen’s Disease Branch (TB Branch) and the TB/HIV/STD Epidemiology and Surveillance Branch (Surveillance Branch) to ensure all TB programs receiving state funding or in-kind support from DSHS Public Health Regions (PHRs) achieve TB performance standards. The TB Work Plan:

a. Serves as a prescriptive document to design and maintain a TB program;
b. Outlines the expectations and responsibilities of all funded programs;
c. Assures consistent TB prevention and care practices are applied throughout Texas; and
d. Provides a blueprint to assess performance outcomes based on quality indicators.

Funded TB programs shall provide services to persons with probable or confirmed TB disease, contacts to a known source case, Class B immigrants and as resources allow, at-risk populations without consideration of a client’s ability to pay.

**DSHS Central Office Responsibilities**

**The TB Branch**

The TB Branch will:

a. distribute funds to maximize the delivery of authorized services to eligible clients;
b. monitor TB programs’ budget expenditures on a quarterly basis (if expenditures are below projected amounts, the jurisdictional budget may be decreased);
c. provide expert nursing consultation;
d. oversee binational TB program activities;
e. develop standards for TB prevention and care in Texas;
f. monitor and evaluate TB program’s progress towards performance objectives to determine effectiveness and compliance with essential TB prevention and care standards;
g. provide technical assistance on any aspect of TB prevention and care;
h. work with DSHS Pharmacy Branch to ensure availability of medications and supplies to treat TB disease and infection;
i. provide Texas-specific TB training directly, or in collaboration with Heartland National TB Center and other partners;

j. oversee molecular epidemiology practices and provide technical assistance to investigate transmission patterns and cluster events;

k. oversee TB prevention and care in high-risk populations, including correctional facilities, community corrections, homeless shelters, and other congregate settings;

l. oversee targeted testing initiatives;

m. develop and revise policies and regulations;

n. serve as a liaison with the Centers for Disease Control and Prevention (CDC) and other federal and state partners;

o. serve as the point of contact for international activities involving TB prevention and care; and

p. conduct quality assurance (QA) activities.

**The Surveillance Branch**

The Surveillance Branch will:

a. serve as repository for TB data reported to DSHS;

b. collect and analyze reports from TB programs to satisfy TB grant requirements;

c. serve as the point of contact for inter-jurisdictional transfers;

d. promote security and confidentiality standards for TB data exchanges;

e. prepare and report aggregate data to the CDC;

f. prepare TB epidemiologic reports;

g. provide technical assistance to PHRs and local health departments (LHDs) for accurate submittal of TB data;

h. assist with the development and implementation of QA procedures and activities;

i. promote active surveillance activities among TB programs receiving state funding; and

j. serve as the liaison for CDC’s Division for TB Elimination (DTBE) Surveillance Team

**State-Designated Registry Sites**

The Surveillance Branch compiles data received from TB programs and their clinics via state-designated case registries. A case registry is defined as a department in a TB program that maintains copies of medical records and reports, so they can submit required reporting variables directly to central office via state-approved reporting systems. State-designated registry sites
are distributed among 25 reporting jurisdictions that consist of eight PHRs, 16 LHDs and TDCJ.

State designated registry sites will:

a. serve as the point of contact for TB programs, hospitals, private laboratories and other reporting entities in their jurisdictions;
b. serve as repository for TB-related data from hospitals, private laboratories and other reporting entities within their jurisdictions;
c. verify American Thoracic Society (ATS) classifications based on current TB Epidemiology Criteria and Surveillance Definitions Guide for probable and confirmed cases of TB and latent TB infection (LTBI), prior to data entry;
d. submit notifications and updates for confirmed cases to DSHS Central Office according to set schedules;
e. serve as the point of contact for intra/inter-jurisdictional transfers and update outcome within 30 days of receipt or transfer;
f. provide data as listed on Form 340 and 341 for the evaluation of contacts and verify their ATS classification for central office to prepare and report contact aggregate data to the CDC;
g. complete items in their assigned workflows or task those items to other individuals within their reporting jurisdictions;
h. collect and review report of verified cases of TB (RVCT) data from TB clinics and other reporting entities within their jurisdictions to satisfy TB grant requirements;
i. collect and review RVCT data variables from TB programs and other reporting entities within their reporting jurisdiction to meet state and National TB Indicators Performance (NTIP) objectives for 100% completeness rate;
j. update local protocols to guide QA activities;
k. review TB epidemiologic reports provided by DSHS and provide feedback;
l. provide technical assistance to TB clinics and other reporting entities within their reporting jurisdiction for accurate submittal of TB data;
m. submit requested data in adherence to reporting schedule;
n. track active surveillance activities conducted by TB clinics within their reporting jurisdictions to include but not limited to hosting or coordinating trainings based on RVCT and QA, Interjurisdictional Notification (IJN) process, and TB/HIV/STD Integrated System (THISIS);
o. participate on monthly conference calls, TB Network News (TBNN), work groups, surveys and special surveillance projects;
p. participate in DSHS’ annual TB Symposium;
q. request access to THISIS by following the instructions on Requesting New Access to a DSHS Database at
Submit THISIS issues via the THISIS helpdesk.; and promote security and confidentiality standards for TB data exchanges and storage (https://www.dshs.state.tx.us/hivstd/policy/procedures/2016-01.shtm).

**DSHS’ Central Office branches, PHRs and LHDs must** comply with the following regarding TB prevention and care activities:

Texas References:

c. DSHS, TB Branch standards and policies, http://www.texastb.org
e. Video-Based Directly Observed Therapy, Required and Recommended Activities, https://www.dshs.texas.gov/idcu/disease/tb/policies/

CDC’s Morbidity and Mortality Weekly Report (MMWR), ATS, and Other State and Peer-Reviewed References:


https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6048a3.htm

https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6048a3.htm

d. ATS and CDC, Treatment of TB, *MMWR*, Vol. 52 (RR11), 1-77, 2003,
https://www.cdc.gov/mmwr/PDF/rr/rr5211.pdf

e. *American Journal of Respiratory and Critical Care Medicine*, Diagnostic Standards and Classification of Tuberculosis in Adults and Children, Vol. 161, 1376-1395, 1999,


g. CDC, Controlling Tuberculosis in the United States, *MMWR*, Vol. 54 (RR12), 1-69, 2005,
www.cdc.gov/mmwr/preview/mmwrhtml/rr5412a1.htm;

h. CDC, Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis, *MMWR*, Vol. 54 (RR15), 1-43, 2005,
https://www.cdc.gov/mmwr/indrr_2005.html

https://www.cdc.gov/mmwr/indrr_2009.html

j. CDC, IGRA Blood Test Fact Sheet, 2016,
http://www.cdc.gov/tb/publications/factsheets/testing/igra.htm;


l. CDC, *Quality Assurance for TB Surveillance Data; A Guide and a Toolkit*,
tion/RVCT%20Training%20Materials/Quality%20Assurance%20Mate
rials/QA%20Manual/3%20-
%20Overview%20of%20QA%20Process%20-%20FINAL.pdf;

m. CDC, Targeted Tuberculin Testing and Treatment of Latent TB Infection (LTBI), *MMWR*, Vol. 49 (RR6), 1-43, 2000,
https://www.cdc.gov/mmwr/PDF/rr/rr4906.pdf


TB programs must comply with all applicable federal and state regulations and statutes, including but not limited to:

a) Tuberculosis Code, Texas Statutes, Health and Safety Code, Chapter 13, Subchapter B;

b) Communicable Disease Prevention and Control Act, Texas Statutes, Health and Safety Code, Chapter 81;

c) Screening and Treatment for Tuberculosis in Jails and Other Correctional Facilities, Texas Statutes, Health and Safety Code, Chapter 89;

d) Control of Communicable Diseases, Texas Administrative Code (TAC), Title 25, Part 1, Chapter 97, Subchapter A;

e) Tuberculosis Screening for Jails and Other Correctional Facilities, Texas Administrative Code (TAC), Title 25, Part 1, Chapter 97, Subchapter H; and


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II. Program Stewardship and Accountability

General Requirement

TB programs will implement a comprehensive TB program and manage resources in an effective manner that focuses on stewardship and accountability.

TB programs will:

a. implement a comprehensive TB prevention and care program;
b. develop and maintain TB policies and procedures;
c. provide services to evaluate, treat, and monitor clients with probable or confirmed TB disease without consideration of a client’s ability to pay;
d. initiate contact investigations (CIs);
e. provide services to evaluate, treat, and monitor contacts to suspected or confirmed cases of pulmonary, pleural, or laryngeal TB disease without consideration of a client’s ability to pay;
f. initiate court-ordered management when needed;
g. provide treatment services for at-risk persons diagnosed with TB infection without consideration of a client’s ability to pay;
h. provide services to evaluate, treat, and monitor Class-B immigrants and refugees without consideration of a client’s ability to pay;
i. develop and maintain TB surveillance mechanisms for early identification and reporting;
j. submit designated reports using established deadlines, schedules, and DSHS-approved mechanisms;
k. perform targeted testing;
l. apply appropriate administrative, environmental, and respiratory controls to prevent exposure to and transmission of TB;
m. provide professional education, training and orientation for new TB program staff and maintain continuing education for current TB program staff;

n. monitor budget expenditures and maintain accurate, and concise records;
o. comply with confidentiality and security standards;
p. monitor surveillance, reporting, and case management activities in correctional facilities;
q. perform self-auditing activities to assess clinical care services and reporting practices; and
r. perform continuous quality improvement activities to achieve Texas performance measures.
III. Conduct Overall Planning and Develop Policies

General Requirement

TB Programs will develop and maintain policies and procedures that align with the TB Work Plan and TB Branch standards. TB Branch standards as well as policies and procedures are published on the DSHS TB website, http://www.texastb.org. Local and regional policies and procedures must not contradict TB Branch requirements and guidelines.

Activities

A. Develop and implement written policies and procedures covering the following topics:
   - Program administration
   - Training
   - Reporting
   - Surveillance
   - Infection control
   - High-risk population screening and evaluation
   - Discharge planning and continuity of care
   - Cohort review
   - Program evaluation
   - Laboratory testing for TB
   - Case management
   - Contact investigations
   - Client confidentiality and security
   - Incident reporting
   - Cluster and outbreak investigations
   - False positive investigations
   - Directly observed therapy
   - Sputum collection

B. Ensure written policies and procedures are easily accessible to all staff responsible for TB prevention and care activities.

C. Review policies and procedures at least once every three years and revise as appropriate to conform to DSHS standards and best practices.

D. Submit title, table of contents and signature pages of policies and procedures to the Branch by October 14th of each year. These may be submitted by email to the nurse administrator or placed in the
jurisdiction’s designated NurseAdmin folder on the Texas Public Health Information Network (PHIN).
IV. Standards of Care for Tuberculosis Services

General Requirement

TB programs will follow the minimum standards of care for clients receiving TB prevention and care services in Texas. The minimum standards, in accordance with the TB Work Plan and TB Branch Standing Delegation Orders (SDOs), are intended for authorized TB program staff working in LHDs and PHRs. Each TB program will have systems in place to ensure the activities in this chapter are met.

Activities

A. Adopt and utilize SDOs.
   1. The TB Branch is responsible for developing and updating SDOs that are consistent with national guidelines and recommendations from DSHS-recognized medical TB consultants.
      • TB programs may choose to adopt the SDOs or develop their own.
      • If TB programs develop local SDOs, they must meet the minimum standards outlined in DSHS’ SDOs.
      • TB programs may add their name and logo to DSHS’ SDOs. They may also elect to use the SDOs to develop local policies and procedures.
   2. Orders cannot be removed from DSHS’ SDOs, but the reviewing physician may elect to add additional orders or modify the format.
   3. TB Program staff authorized to carry out SDOs must sign attestation pages from the SDOs. Copies of signed attestations must be submitted to the TB Branch by October 14 of each year.
      • DSHS’ SDOs are revised annually. The TB program manager and program staff should review SDOs after each release. This may occur via a one-day in-service training with staff to ensure a thorough understanding of the SDOs. In-service trainings are an ideal time to collect staff signatures.
      • SDOs must be reviewed and signed annually by the physician responsible for TB services (e.g., contracted TB physician, regional medical director, local health authority).
B. Screen for TB disease and TB infection.
   1. Every client age two years and older should be screened using an Interferon Gamma Release Assay (IGRA) test. It is the preferred screening test in Texas.
      - The TB Branch provides IGRA at no cost to TB programs. IGRA should only be used among populations described in this document.
   2. Tuberculin skin test (TST) supplies (e.g., syringes and tuberculin purified protein derivative) should be ordered from the Pharmacy Branch using DSHS’ Inventory Tracking Electronic Asset Management System (ITEAMS). Programs should not order or provide TST supplies for sites outside the program (e.g., local schools, hospitals, non-Chapter 89 correctional facilities) without written authorization from the TB Branch.
   3. Any high-risk client referred or seeking evaluation for TB infection may be evaluated and treated by the local TB program when other health resources do not exist i.e. federally qualified health center, etc.

C. Ensure the availability of radiology services.
   1. Every program must have radiology services available, whether in-house or through a contract.
      a. Every medical record for clients on treatment for pulmonary TB disease must include documentation of:
         i. a baseline chest x-ray (CXR);
         ii. a CXR at two months of appropriate treatment;
         iii. a CXR at closure; and
         iv. as ordered by the treating physician.
      b. Every client eligible for treatment for TB infection must have a baseline CXR to rule out active disease prior to starting therapy.

D. Follow airborne infection isolation (AII) guidelines.
   1. A nurse may place a client in AII by issuing the patient a TB control order signed by the local health authority.
   2. Clients released from AII will have the date of release documented in the medical record. A nurse may release a patient from AII after written instructions by the treating physician once criteria for release from AII is met. The treating physician may determine if the SDOs suffice for this written
instruction, or if they prefer reviewing all requests prior to release from isolation.

E. Ensure the completion of specimen testing.
   1. TB programs must have the capacity to obtain natural and induced sputum specimens when indicated.
   2. TB programs that do not have sputum induction booths with clinic-based nebulizers may use TB funds to purchase portable nebulizers. Hypertonic solution for nebulization is available through the DSHS pharmacy if 0.9% sodium chloride does not yield an adequate sample (refer to DSHS SDOs for sputum induction procedure), see Appendix H.
   3. TB Programs must ensure that all *mycobacterium tuberculosis* (*M.tb*) isolates reported to the TB Surveillance Branch are sent to DSHS laboratory for genotyping.

F. Perform routine client assessments.
   1. Every client on a medication regimen for TB disease or infection will have at a minimum, a baseline and monthly nursing assessment to include a physical exam and toxicity screening documented in the medical record.
   2. Toxicity screening must be performed according to drug regimen.
   3. Programs should ensure that the treating TB physician has reviewed and signed the medical record for clients with an ATS classification of III or V at the following intervals, at minimum:
      - review and sign medical record upon treatment initiation;
      - review and sign medical record at eight weeks of therapy, or upon completion of the initial phase (if greater than 8 weeks);
      - review and sign medical record at 26 weeks of therapy;
      - review and sign medical record at closure;
      - review and sign medical record any time medications are held due to signs or symptoms of toxicity; and
      - review and sign medical record as determined by the treating physician when orders are updated or need to be revised.
   4. For clients receiving treatment for TB infection, there must be documentation of communication between a licensed nurse and client at least monthly. Additional documentation must include:
      - a physical exam and/or toxicity screening
      - medication refill information, including drug name,
dosage, lot number, and expiration provided to the client or designee.

G. Provide directly observed therapy (DOT).
   1. Every client with an ATS classification of III or V will be placed on DOT for the duration of treatment, unless otherwise ordered by the treating physician.
   2. Every client on isoniazid and rifapentine (3HP) will be offered DOT but may be treated by self-administration therapy (SAT) with a physician’s order.
   3. DOT for TB infection is highly recommended for clients under the age of five years, as resources allow.
   4. DOT packets should be ordered through ITEAMS.

H. Manage pediatric clients age 17 years and younger.
   1. The initial evaluation for TB disease or TB infection in clients five years of age and younger will include a physical examination by a physician or other licensed clinician.
   2. If parents or guardians of clients age 17 years or younger decline treatment for TB infection, the treating physician will provide a letter advising treatment.
      • A copy of the letter will be maintained in the client’s medical record.
      • The treating physician may consider additional steps such as a Child Protective Services (CPS) notification. See Appendix A for sample correspondence.

I. Ensure the completion of adequate therapy.
   1. Ideally, every client with TB disease will complete therapy as specified in the SDOs with 100% of doses taken by DOT.
   2. When closure at 100% is not possible, clients should have at least 80% of treatment completed by DOT.

J. Initiate contact investigations.
   1. Every acid-fast bacillus (AFB) smear positive sputum case will have at least three contacts identified.
   2. Every pulmonary case or suspect will have a CI initiated within three working days.
   3. Submit an incident report to the TB Branch for mass or concerning CIs.
K. Clarify roles and responsibilities of TB program staff.

1. It is the role of the TB program manager to:
   • ensure a process exists for assigning care to each new client seeking services;
   • ensure a plan of care exists and documentation of shared roles of the TB program and community providers is included in the medical record; and
   • ensure clients and/or their guardians are given opportunities to comply with the treatment plan.

2. It is the role of the physician who signs the SDOs to:
   • review and sign SDOs annually. The physician and TB program manager are responsible for ensuring staff understand the orders and are provided the opportunity to ask clarifying questions;
   • ensure a process exists for responding to signs/symptoms of medication toxicity or other patient concerns when reported by the licensed nurse;
   • provide clear expectations to staff working under the SDOs regarding the frequency of physician assessments, process of obtaining signed medical orders from the treating physician, and communication with TB program staff;
   • ensure a process for seeking medical consultation with a DSHS recognized TB medical consultant exists (i.e., coordination between TB physician and nurse);

3. It is the role of the physician writing orders for and managing the client (if different from the physician who signs the SDOs) to:
   • ensure all clients, especially clients with drug-resistant TB, pediatric clients, or other high-risk clients, are managed according to the standards of care for treatment as outlined in the SDOs.

4. It is the role of the nurse case manager to:
   • ensure patients are started on adequate therapy;
   • ensure routine assessment of clients per the TB Work Plan and SDOs are performed;
   • acknowledge and follow SDOs;
   • document monthly toxicity screening to include abnormalities and subsequent interventions;
• notify the treating physician if toxicity screening does not occur as medications should not be administered to clients for which screening cannot be completed.
V. Manage Tuberculosis Cases and Suspects

General Requirement

TB programs will 1) provide services to evaluate, treat, and monitor clients with suspected or confirmed TB disease, regardless of ability to pay, 2) ensure TB clients are appropriately managed, regardless of the jurisdiction in which they are counted, and 3) adhere to procedures outlined in the DSHS SDO and Standing Medical Orders (SMOs) for Tuberculosis Prevention and Care.

Activities

A. Collaborate with health care institutions, hospitals, long-term care facilities, private physicians and correctional facilities to ensure appropriate management of clients with suspected or confirmed TB disease.

B. Create a medical record for each person with suspected or confirmed TB disease and document plan of care on the TB-201 or equivalent. The medical record should include at minimum the following DSHS forms (or local equivalent):
   - TB 400A (Report of Case and Patient Services)-completed initially
   - TB 400B (Report of Case and Patient Services)-completed initially and updated when indicated
   - TB-201 (Case Management Plan for Outpatient Care)
   - TB-202 (Tuberculosis Health Assessment/History)
   - TB-203 (Education/Counseling Record)
   - TB-204 (Tuberculosis Forms/Literature Checklist)-this form may be modified with updated literature used locally
   - TB-205 (Toxicity Assessment)
   - TB-206 (DOT Log)
   - L-36 (General Consent and Disclosure)
   - L-30 (Consent to Release Confidential Medical Information)
   - TB 409 (Acknowledgement of Understanding)-Class V
   - TB-410 (Order to Implement and Carry Out Measures for Client with TB)
   - TB 411 (Disclosure and Consent for Drug Therapy)

C. Implement initial infection control practices (see Section XIV).
   1. Place a surgical mask on clients who arrive at the clinic for TB services.
2. Clients classified as class III or V based on the ATS classification system should be placed in AII with documentation in the medical record, unless criteria for release from isolation has been met as outlined in the SDOs.

D. Coordinate discharge planning with in-patient facilities or correctional facilities for clients being released to outpatient care. The following discharge planning criteria should be met:
   1. A specific plan exists for follow-up care.
   2. When possible, client should be served the TB control order (TB-410) prior to discharge.
   3. Client is started on the standard multi-drug TB treatment regimen and DOT arranged.
   4. No infants or children less than five years of age or persons with immunocompromising conditions are present in the household of an infectious patient (when possible).
   5. Client is advised of travel restrictions while infectious.
      a. Direct clients to refrain from travel outside of the home, except for healthcare-associated visits until client has met criteria to discontinue AII.
      b. Direct clients traveling for any healthcare-associated visits, to wear a surgical mask for the duration of travel and visit.

E. Obtain acknowledgment and consent for treatment and care.
   1. Maintain signed consents and acknowledgements (DSHS or local equivalent) in the client’s medical record.
   2. If the client moves to another jurisdiction, Form TB-410 and acknowledgment/consent forms must be prepared by the receiving jurisdiction and submitted to the client for signature.

F. Develop a treatment and case management plan.
   1. Develop an initial treatment and case management plan for each client **within one week of receiving the report of a new ATS class III or V** and document on Form TB-201 or equivalent.
      a. TB programs must maintain oversight of clients receiving TB care from private providers to ensure DSHS treatment standards are followed. State-purchased medications cannot be used to support a medication regimen that does not align with DSHS treatment standards.
b. Create a written agreement describing the shared roles and responsibilities in the delivery of TB care services between a private provider and the TB program.  
   i. Present a written plan to the private provider and client to ensure proper treatment, coordination of care, and reporting.  
   ii. See appendices A – C for sample correspondence.

2. Facilitate establishment of a medical home, as needed. Regardless of client’s insurance status, identify community resources that serve indigent clients and the uninsured, and refer as appropriate. If available, provide referrals for clients needing primary or specialty clinical care:  
   a. Uninsured patients may be referred to federally qualified health centers (FQHCs) to ensure they have access to primary and specialty care (see http://www.dshs.texas.gov/chpr/fqhcmain.shtm).  
   b. Indigent patients may qualify for medical assistance in their county of residence (see http://www.dshs.texas.gov/cihcp/default.shtm).  
   c. See Appendix E for additional client services.

G. Provide initial and ongoing client education.  
   1. Provide client education on:  
      a. transmission and pathogenesis of TB;  
      b. means to decrease transmission and the need for infection control;  
      c. rationale for DOT;  
      d. seriousness and importance of completing treatment;  
      e. significance of conducting a complete and thorough CI;  
      f. protected health information (PHI);  
      g. adverse drug reactions and drug interactions of TB medications;  
      h. the need for clients to discuss adverse drug reaction symptoms and other treatment concerns with nurse case manager as soon as they occur;  
      i. consequences of non-adherence to treatment; and  
      j. unobserved specimen collection.

   2. Document initial and ongoing education and counseling on Form TB-203.
H. Conduct TB screening and evaluation in accordance with DSHS SDOs.

1. Determine the appropriate TB screening method based upon:
   a. client’s age;
   b. Bacillus Calmette-Guerin (BCG) status; and/or
   c. other factors outlined in the SDOs.

2. Conduct medical evaluation.
   c. Conduct physical exam and document on progress notes or approved forms.
   d. Collect sputum specimens per SDOs.
   e. Collect clinical specimens if warranted (see Table 1)

3. Screen for existing comorbid conditions (e.g., diabetes, HIV).
   Collect the following diagnostic results and provide to treating provider for review and signature:
   a. Baseline TB screening test results
   b. CXR (see Table 2)
   c. AFB smear results and bacteriology (see Table 3)
   d. Drug susceptibility test (DST) results (see Table 4)

(Note: Extended drug susceptibility testing must be performed on all isolates with resistance to any first line agent [e.g., isoniazid, rifampin, pyrazinamide and ethambutol])

   e. hepatitis C virus [HCV], hepatitis B virus [HBV]).
Table 1. Types of Specimens Collected to Diagnose TB Disease

<table>
<thead>
<tr>
<th>Diagnosis Type</th>
<th>Specimen Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary or laryngeal TB</td>
<td>Sputum (phlegm from deep in the lungs). If a diagnosis of pulmonary TB cannot be established from routine sputum collection, other procedures may be necessary, including bronchoscopy and gastric aspiration. Laryngeal TB may be diagnosed from clinical signs and symptoms (i.e. hoarseness) or by biopsy.</td>
</tr>
<tr>
<td>Extra-pulmonary TB</td>
<td>Anatomic sites include but are not limited to:</td>
</tr>
<tr>
<td></td>
<td>- Urine</td>
</tr>
<tr>
<td></td>
<td>- Cerebrospinal fluid</td>
</tr>
<tr>
<td></td>
<td>- Pleural fluid</td>
</tr>
<tr>
<td></td>
<td>- Pus or other aspirated fluid</td>
</tr>
<tr>
<td></td>
<td>- Biopsy specimens</td>
</tr>
<tr>
<td></td>
<td>- Blood (heparinized)</td>
</tr>
</tbody>
</table>


4. Ensure shipment of initial isolate to DSHS Laboratory in Austin for genotyping regardless of the laboratory that performed AFB smear and culture tests.

5. Prepare a written TB control order for persons with suspected (ATS class V) or confirmed TB disease (ATS class III).
   a. Use Form TB-410 or equivalent. This form is required even if the client refuses to sign. Note the date and time it was provided to the client.
   b. Prepare the written control order in the client’s preferred language, ideally within three days of classification.
   c. Document in the medical record if an interpreter (or guardian) reads the control order to client before the client signs the control order.
<table>
<thead>
<tr>
<th><strong>CXR Finding</strong></th>
<th><strong>Meaning</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation</td>
<td>Often referred to as an ill-defined opacity</td>
</tr>
<tr>
<td>Cyst/cavity</td>
<td>Focal spaces or “holes” in the lung: both indicate the absence of lung tissue; a cavity being more likely to be TB, and generally indicative of greatest infectiousness</td>
</tr>
<tr>
<td>Fibrosis</td>
<td>May or may not be active disease and requires further evaluation</td>
</tr>
<tr>
<td>Granuloma</td>
<td>A small, calcified nodule, usually not indicative of active disease</td>
</tr>
<tr>
<td>Opacity</td>
<td>A circumscribed area that appears nearly white (i.e. denser) than its surroundings; may be parenchymal, pleural, within the chest wall, or external to the patient</td>
</tr>
<tr>
<td>Lymphadenopathy</td>
<td>Enlarged lymph nodes seen as soft tissue densities: usually more indicative of active disease in a child</td>
</tr>
<tr>
<td>Miliary</td>
<td>Many tiny nodules resembling millet seeds scattered throughout</td>
</tr>
<tr>
<td>Nodule</td>
<td>Discrete opacity measuring two to 30 millimeters (mm) in diameter</td>
</tr>
<tr>
<td>Mass</td>
<td>Discrete opacity (nodule) greater than 30 mm in diameter; often indicative of a carcinogenic process</td>
</tr>
</tbody>
</table>
### Table 3. Acid Fast Bacilli Smear Classification Results

<table>
<thead>
<tr>
<th>Quantity Reported*</th>
<th>DSHS Laboratory Quantitation</th>
<th>Smear Result</th>
<th>Infectiousness of Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>4+/numerous (&gt;9/field)</td>
<td>&gt;10/field</td>
<td>Strongly positive</td>
<td>Probably very infectious</td>
</tr>
<tr>
<td>3+/few-numerous (1-9/field)</td>
<td>1-10/field or &gt;10/field</td>
<td>Strongly positive</td>
<td>Probably very infectious</td>
</tr>
<tr>
<td>2+/few (1-9/10 fields)</td>
<td>&lt;1/field or 1-10/field</td>
<td>Moderately positive</td>
<td>Probably infectious</td>
</tr>
<tr>
<td>1+/rare (1-9/100 fields)</td>
<td>&lt;1/field</td>
<td>Moderately positive</td>
<td>Probably infectious</td>
</tr>
<tr>
<td>Actual number of AFB seen (no plus sign) (1-2/300 fields)</td>
<td>1 or 2 AFB seen on entire smear</td>
<td>Weakly positive†</td>
<td>Probably infectious</td>
</tr>
<tr>
<td>No acid-fast bacilli seen</td>
<td>No AFB seen on direct smear</td>
<td>Negative</td>
<td>Probably not infectiousβ</td>
</tr>
</tbody>
</table>

* Note: Reporting methods may vary by laboratory. Check with your laboratory for specific interpretation.
† Laboratories may report these smear results as “doubtful” or “inconclusive” based on CDC guidelines.
β The criteria for determining whether a client may be considered noninfectious are discussed in Module 5: “Infectiousness and Infection Control” of the CDC’s *Self-Study Modules on Tuberculosis*.

Table 4. Drug Susceptibility Patterns

<table>
<thead>
<tr>
<th>Category</th>
<th>Sensitivity patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan-sensitive</td>
<td>Sensitive to streptomycin, isoniazid, rifampin, ethambutol and pyrazinamide</td>
</tr>
<tr>
<td>Mono-resistant</td>
<td>Resistant to one first-line anti-TB drug only</td>
</tr>
<tr>
<td>Poly-resistant</td>
<td>Resistant to at least two first-line anti-TB medications (but not both isoniazid and rifampin)</td>
</tr>
<tr>
<td>Multi-drug resistant</td>
<td>Resistant to both isoniazid and rifampin</td>
</tr>
<tr>
<td>Pre-extensively drug-resistant</td>
<td>Resistant to isoniazid and rifampin, plus resistant to any fluoroquinolone or at least one of three injectable second-line drugs (such as amikacin, kanamycin, or capreomycin)</td>
</tr>
<tr>
<td>Extensively drug-resistant</td>
<td>Resistant to isoniazid and rifampin, plus resistant to any fluoroquinolone and at least one of three injectable second-line drugs</td>
</tr>
</tbody>
</table>

Adapted from “Tuberculosis Nursing: A Comprehensive Guide to Patient Care (2nd ed.)”, by National Tuberculosis Controllers Association, 2011.

6. Monitor monthly adherence to treatment, response to treatment, and medication side effects or adverse reactions. Document in client record on Form TB-205 or equivalent.
7. Conduct monthly follow-up laboratory tests and assessments in accordance with the SDOs; document results and subsequent interventions as necessary.

I. Establish and maintain client record in accordance with DSHS SDOs.
   1. Organize medical records according to locally determined chart order with sections clearly divided.
   2. Ensure all documents are securely attached to the medical record.
   3. Provide accurate and complete documentation.
4. Date and sign all entries in the progress notes and draw a line through each blank section.
5. Document in chronological order.
6. Draw a single line through errors and initial.
7. Do not document outside the margins.
8. Establish a locally-approved list of abbreviations.

J. Document case management and treatment activities.
   1. Document assignment of nurse case manager and other case management team members on Form TB-201 (or equivalent)
   2. Maintain copies of Form TB-400A (Report of Case and Patient Services) or equivalent; provide copy of Form TB-400A or RVCT to TB case registrar within 14 business days of initial report or referral to TB program.
   3. Document complete medical and social history on Form TB-202 or equivalent.
   4. Document start date of treatment regimen to include medication, dosage, frequency, and route of administration on Form TB-400B (Report of Case and Patient Services) or equivalent; include client’s weight.
   5. Document changes in treatment regimen on Form TB-400B.
   6. Document laboratory and other diagnostic results to include, but not limited to:
      a. AFB smear result;
      b. culture results;
      c. DST results; and
      d. CXR results.
      e. Document hospitalizations, TB medical consultations, or extension of therapy.
      f. Document all client services on Form TB-201 or equivalent.

K. Initiate standard therapy as ordered.
   1. Treatment for drug susceptible TB includes two phases:
      a. Initial treatment phase: isoniazid (INH), rifampin (RIF), ethambutol (EMB), and pyrazinamide (PZA) for the first eight (8) weeks, or until susceptibilities are known
      b. Continuation treatment: INH and RIF for the remaining months
   2. Provide DOT and document on Form TB-206 or equivalent.
a. DOT is the standard of care in Texas. Provide DOT to all clients with probable or confirmed TB disease. Clients with probable TB should continue DOT until TB is ruled out.

b. Indicate clearly on Form TB-206 which medications are provided. Note any medication changes on the log and sign.

c. Document every directly observed dose of medication administered to the client.

d. If a client takes self-administered doses on the weekend, do not count the number of weekend doses towards completion of therapy.

e. All self-administered doses and missed doses should be clearly documented on Form TB-206.

f. Pursue appropriate actions when a DOT or clinic appointment is missed, up to and including court-ordered management.

L. Ensure clients are managed and respond to therapy.

1. Initiate a consult from a DSHS-recognized medical TB consultant as indicated.
   
a. Indicators for consultation are listed in the SDOs.
   
b. Consults from an expert TB physician are required for any client with drug-resistant TB, as listed in the SDOs.
   
c. See Appendix F for medical consult templates.

2. Consider serum drug level testing for clients who are not responding adequately to therapy, or clients with risk factors for poor absorption of medication. See Therapeutic Drug Monitoring Process at [http://www.dshs.texas.gov/idcu/disease/tb/forms/](http://www.dshs.texas.gov/idcu/disease/tb/forms/)

M. Close the client’s medical record using any one of the following disposition:

1. Completion of adequate therapy
   
a. Treatment completed within 12 months
   
b. Exceptions to completion of adequate treatment within 12 months apply if:
      
i. client has MDR or XDR TB;
      
ii. isolates show resistance to rifampin;
      
iii. client is less than 15 years of age with miliary disease; or
      
iv. client has meningeal disease.

2. Non-TB

3. Deceased
4. Moved out of country
5. Lost to Follow-Up (LTFU)
   a. Make at least three attempts to contact a TB client before considering a client as LTFU to include:
      i. Calling the client
      ii. Visiting the client’s residence
      iii. Sending a certified-mail notification of the client’s need to follow-up with clinic
   b. Document attempts in the progress notes of client’s medical record.
   c. Place certified mail notification receipt in the client’s medical chart.
VI. Treatment of Drug-Resistant Tuberculosis

General Requirement

TB programs will participate in the TB Branch’s drug-resistant monitoring program. The purpose of the drug-resistant monitoring program is to collect, analyze, describe, and respond to data used in the prevention and care of drug-resistant tuberculosis (DRTB) in Texas. This includes monitoring:

- Rifampin mono-resistance (RR-TB);
- Multi-drug resistance (MDR-TB);
- Pre-extensively drug resistance (Pre-XDR TB); and
- Extensively drug resistance (XDR-TB).

Activities

A. Identify clients at risk for DRTB. Risk factors include:
   1. previous episodes of tuberculosis treatment, usually incomplete treatment;
   2. worsening clinical and/or radiographic findings while on TB treatment;
   3. origin from, history of residence in, or frequent travel to a region or country with a high prevalence of DRTB;
   4. exposure to an individual with known (or highly suspected) infectious DRTB; and/or
   5. exposure to individuals in congregate settings where drug resistance has been documented.

B. Seek consultation with a DSHS-recognized medical TB consultant upon initial diagnosis or suspicion of DRTB and notify the TB Branch nurse consultant.
   1. TB programs are made aware of drug resistance when a:
      a. client presents with known risk factors for DRTB;
      b. polymerase chain reaction (PCR) testing performed with GeneXpert results indicate rifampin resistance;
      c. DST results indicate resistance; and/or
      d. client is reported to the TB program with other laboratory results that indicate resistance.
   2. Consultation with a DSHS-recognized medical TB consultant is required when:
      a. a client has laboratory-confirmed drug resistance or is suspected to have drug-resistant TB, including a NAAT showing rifampin resistance.
i. Laboratory-confirmed drug resistance is defined as resistance to isoniazid and/or rifampin or to any drug other than streptomycin or pyrazinamide mono-resistance on drug susceptibility panel testing.

ii. Consultation must occur within three days of laboratory notification.
   b. a client is prescribed second-line TB medications other than first-line drugs due to DRTB.
   c. the treating physician is requesting molecular detection of drug resistance (MDDR) testing.
   d. client is a contact to a case of MDR-TB, Pre-XDR-TB, or XDR-TB.

3. Additional consultation is strongly recommended any time a DRTB patient:
   a. has a change in therapy or change in status;
   b. misses required screenings;
   c. exhibit signs of adverse drug reactions;
   d. is discharged from TCID; or
   e. any time the treating physician is concerned about the patient status.

C. Coordinate with DSHS Laboratory to ensure appropriate diagnostic tests are ordered.
   1. NAAT with GeneXpert is a rapid PCR test that identifies the presence of deoxyribonucleic acid (DNA) in the \textit{M.\textit{tb}} isolate as well as assesses for mutations consistent with rifampin resistance.
   2. DSTs are run on positive \textit{M.\textit{tb}} cultures. If resistance is detected, DSHS laboratory will communicate directly with the submitter to recommend further testing.
   3. If rifampin resistance is detected, this may indicate resistance to additional first-line drugs; therefore, further testing would be indicated, such as an MDDR test.
   4. Request MDDR testing when appropriate (see Appendix G).
   5. Outside laboratories may also report resistance from rapid tests such as PCR; coordination with outside laboratories is recommended.

D. Intervene when diagnostic tests indicate resistance if the client is on therapy for drug-susceptible TB, such as rifampin, isoniazid, pyrazinamide and ethambutol (RIPE):

34
1. hold current drug regimen;
2. consult with the treating physician; and
3. request a medical consult from a DSHS-recognized medical TB consultant for continuation of care.
   Note: If the client is hospitalized, the TB program will request the treating provider seek consultation with Heartland National TB Center.

E. Consider admission and coordinate discharge with Texas Center for Infectious Diseases (TCID).
   1. Admission for initial stabilization may be an option but not required.
   2. Admissions will be coordinated with the TCID admissions nurse.
      a. Submit admissions requests to TCIDADmissions@dshs.texas.gov.
      b. Fax referrals and documents to TCID.
   3. TCID discharge summaries are recommendations, not physician orders.
      a. TB programs are responsible for ensuring written orders are received for the client from the local TB clinician, who may adopt the TCID orders in their entirety, or make modifications after consultation from a DSHS-recognized medical TB consultant.
      b. TB programs should ensure that the patient is being carefully monitored at the local level.

F. Order second-line TB medications when indicated (see Table 5).
   1. Notify the TB Branch nurse consultant when requesting second-line medications for DRTB. The notification must include:
      a. Written consult from a DSHS-recognized medical TB consultant or discharge summary from TCID recommending second-line medications (when applicable). Written consults may be provided in the form of a letter or email.
      b. Physician’s orders indicating the medical necessity for second-line medication as documented on the DSHS TB-400B or equivalent.
   2. Bedaquiline (BDQ) is available through DSHS Pharmacy Branch after coordination with the TB Branch. Refills by The Johnson & Johnson Patient Assistance Foundation, Inc. or other assistance programs may be requested from DSHS TB Branch.
a. Contact the TB Branch nurse consultant to request BDQ. The following will be required:
   i. A written consult from a DSHS recognized medical TB consultant recommending the medication.
   ii. Coordination with the TB Branch nurse consultant for patient-specific details on how to order and obtain refills

3. Clofazimine (CFZ) is an investigational drug; therefore, it is not currently available through the DSHS Pharmacy Branch. It is available to physicians enrolled in the Food and Drug Administration (FDA) study. If the client received CFZ while at TCID, adhere to the following:
   a. Arrange clinical assessments every three months with TCID’s prescribing physician to continue receiving CFZ.
   b. Contact TCID for medication refill two weeks prior to running out of CFZ if it is not time for the client’s three-month visit.
   
Note: CFZ is available through TCID’s pharmacy or from the physician participating in the CFZ investigational drug study.

G. Document case management and treatment activities on the TB Branch clinical care forms specific to DRTB, or their equivalent. Monthly assessments of medication toxicity specific to each medication and regimen are required and must be documented on DSHS toxicity forms or equivalent.

H. Submit reporting forms to the TB and Surveillance Branches.
   1. Complete and submit Form TB-400B on all newly diagnosed drug-resistant cases within five days of notification to the TB Branch via PHIN and send email to DSHS TB Branch Nurse Consultant.
   2. The following may also be uploaded to the PHIN when requested by the nurse consultant:
      i. completed RVCT forms;
      ii. laboratory reports;
      iii. written consultations; and,
      iv. hospital discharge summaries when requested.
   3. Complete and submit an updated Form TB-400B every 90 days to the TB Branch for all drug-resistant cases until treatment is completed.
4. Submit any changes in case management, drug resistance patterns, or residence on any DRTB case to the TB Branch within 72 hours of notification.

I. Maintain communication with the TB Branch’s nurse consultant, which may include but is not limited to:
   1. submitting requests for information in a timely manner;
   2. responding to case management inquiries;
   3. outlining interventions taken to prevent or respond to medication toxicity; and
   4. participating in routine meetings or conference calls as requested by the TB Branch nurse consultant.

J. Manage clients in accordance with the TB Work Plan, recommendations from a DSHS-recognized medical TB consultant, and the treating physician for duration of therapy.
VII. Medication and Supplies Ordering and Inventory Management

General Requirement

TB programs will order and store DSHS-purchased medication in accordance with DSHS standards.

Activities

A. Follow DSHS-established criteria for the use of TB program medications.

B. Designate a staff member to oversee the ordering and management of DSHS-purchased medications to ensure that:
   1. DSHS-purchased medications are used for outpatient treatment of TB disease or TB infection only (including window prophylaxis).
   2. Medications are used for clients who have a medical record established at the clinic providing the medication.
   3. The TB program supplying medications to the client retains overall responsibility for the care of the client.
   4. TB medications and supplies are used in a prudent manner and not distributed to entities for which TB programs do not provide treatment oversight.
   5. TB programs cannot charge clients for medications or seek third-party reimbursement (including Medicaid reimbursement), as medications are provided to TB programs at no cost.
   6. TB programs shall not distribute or supply state-purchased medications to jails and other entities for which the clients receiving the medications are not under the direct care of that TB program.

C. Follow DSHS-established procedures for TB medication inventory management.
   1. Order TB medications and reconcile inventory through ITEAMS.
   2. Limit medication orders to a one-month supply as the Pharmacy Branch typically fulfills orders within 24 hours of receipt.
   3. Set maximum stock levels no higher than a one-month average usage.
4. Monitor and manage use of TB medications and testing supplies furnished by DSHS in accordance with first-expiring/first-out (FEFO) principles of inventory control.

5. Avoid waste by ordering packets for clients new to therapy with individual drugs to avoid waste (e.g. 10 packets of Rifampin, 10 packets of Isoniazid) to maximize usage.

D. Order medications for clients diagnosed with suspected or confirmed TB disease, those needing window prophylaxis, or clients with TB infection in accordance with DSHS TB formulary (see Appendix H) and provider orders.

1. Order medication for DOT in DOT packets. DOT-packaged medications have a shorter expiration date than their original manufacturer expiration date, typically 2-6 months after packaging. Therefore, if one medication in the packet expires, the entire packet must be disposed.

2. Order medication packets for self-administered therapy (SAT) or video-enabled directly observed therapy (VDOT). These may be ordered in the same way as DOT packets from the Pharmacy Branch. If medications will be in the client’s possession, certain labeling requirements must be met for packaging (e.g., amber zip-closure bag) containing DOT packets.
   a. The label should be prepared and affixed to the zip-closure bag by TB program staff providing medications to the client.
   b. The label must include (see sample label in Figure 1):
      i. the name and address of the medical director or physician who prescribed the drug;
      ii. the date the drug is delivered to the client;
      iii. the client’s name; and
      iv. the name, strength, and directions for use of the drug(s).

3. Refer to DSHS Video-Based Directly Observed Therapy Required and Recommended Activities Manual (https://dshs.texas.gov/idcu/disease/tb/policies)

E. Order auxiliary medications (see Appendix I) for clients needing supportive therapy, when all other resources for obtaining the medication have been exhausted. These may include, but are not limited to:

1. anti-emetics;
2. corticosteroids; and
3. lidocaine.

Figure 1. Sample Medication Label

XX County Public Health Department
123 Main St.
City, TX 77000
Phone 123-456-7891

Date: 01/01/2018
Physician: John Watson, MD
Patient: Jane Doe

Medications: Rifampin 600mg, Isoniazid 300mg, Pyrazinamide 1600mg, Ethambutol 800mg, Pyridoxine 50mg

Instructions: Take 2 packets each day

F. Order second-line TB medications when indicated (see Table 5).
   1. For clients diagnosed with drug resistance, refer to Chapter VI for ordering and notification process.
   2. For clients NOT diagnosed with drug-resistant TB, and second-line medications are ordered, notify the TB Branch nurse consultant. Send the following to the TB Branch via the PHIN when requested:
      a. Form TB-400B or equivalent
      b. DSHS-recognized medical TB consultant letter/email or TCID discharge summary recommending second-line medications (when applicable)

G. Manage and Monitor Distribution of Tubersol and Tuberculin Skin Testing Supplies to community-based organizations serving high-risk populations based on an environmental risk assessment.
   1. Distribute Tubersol and syringes to correctional facilities meeting Texas Health and Safety Code Chapter 89 requirements as needed.
Table 5. Second-Line Medications

<table>
<thead>
<tr>
<th>Injectable Agents</th>
<th>amikacin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoroquinolones</td>
<td>levofloxacin, moxifloxacin</td>
</tr>
<tr>
<td>Bacteriostatic Agents</td>
<td>bedaquiline, cycloserine, ethionamide, para-aminosalicylic acid (PAS)</td>
</tr>
<tr>
<td>Other Oral Agents</td>
<td>clofazimine, linezolid</td>
</tr>
</tbody>
</table>

Note: Second-line medications include, but are not limited to these groups

2. Maintain an inventory of tuberculin skin testing supply provided to each correctional facility or targeted testing facility monthly.
3. Review monthly, tuberculin skin testing reports submitted by each correctional facility and targeted testing facility to determine use.
4. Adjust quantity distributed to correctional facilities and targeted testing sites based on trends in usage.
5. Halt distribution of tuberculin testing supplies if monthly reports of usage are not provided by the receiving facility.
6. Prepare and sign a memorandum of agreement for each entity determined by the TB program to receive tuberculin skin testing supplies.
   • The memorandum of agreement should clearly explain the distribution, storage and reporting process including indicators that may halt or discontinue receiving tuberculin skin testing supplies.

H. Reconcile medication inventory.
   1. Maintain a count of DSHS-purchased medications and supplies.
   2. Reconcile bulk inventory according to product and lot numbers listed in ITEAMS no later than the seventh working day of each month. Bulk medication inventory refers to bottles of medications, as opposed to medication packets.
   3. Transfer products that have not been used in 6-9 months (or will not be used in 6-9 months) to another TB program where demand is greater.
   4. Record the transfer to another TB program facility as a “transfer order” by selecting the reason from the ITEAMS drop down list.
   5. Establish policies and procedure for the disposal of expired/non-usable medications.
6. Coordinate with ITEAMS inventory staff to ensure TB orders comply with best practices.
7. Store all DSHS-purchased medications and supplies properly and securely in accordance with manufacturer’s instructions.
VIII. Conduct and Manage a TB Contact Investigation

General Requirement

TB programs will conduct a CI for persons with suspected (Class V) or confirmed (Class III) pulmonary, pleural, or laryngeal TB disease and evaluate, treat, and monitor their contacts. The goal of a CI is to find persons exposed to TB who are likely to become infected or progress to TB disease to prevent further transmission.

Activities

A. Initiate a contact investigation.
   1. Conduct the initial interview within three working days of a patient being reported to the TB program with suspected or confirmed TB diagnosis.
      a. The interview should take place in the primary language of the client or their representative (parent or guardian for young children or proxy for clients diagnosed at death), using an interpreter if needed. Document interpreter services on the DSHS EF12-12062 Contact Investigation Worksheet.
      b. Clients who are AFB sputum smear positive and/or with CXRs revealing cavitation must have a second interview seven days after the initial interview.
   2. Visit the primary residence of a client within three working days of initial report.
   3. Visit additional sites where transmission may have occurred.

B. Determine infectious period using Form TB-425 (TB Infectious Period Calculation Worksheet).
   1. The infectious period generally begins three months prior to the onset of symptoms (see Table 6).
   2. Determine date in which contact was broken based upon:
      a. date of physical separation from the index case; or
      b. date the index case is no longer considered infectious.
Table 6. Estimating the Infectious Period

<table>
<thead>
<tr>
<th>Index Case Characteristics</th>
<th>Infectious Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TB Symptoms</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>√</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>AFB Sputum Smear (+) Result</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cavitary CXR</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
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<td>√</td>
<td></td>
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</tbody>
</table>

*abnormal CXR consistent with TB or bacteriology

C. Prioritize all contacts into high, medium, or low categories (see Table 7).

1. Consider index case characteristics (e.g., site of TB disease, AFB sputum smear results).
2. Consider contact characteristics (e.g., <5 years of age, HIV status).
Table 7. Guidelines for Prioritizing Contacts

<table>
<thead>
<tr>
<th>Index Case Characteristic</th>
<th>Contact Prioritization</th>
</tr>
</thead>
</table>
| **Pulmonary, laryngeal or pleural TB**  
  • Cavitary lesion on CXR; or  
  • AFB sputum smear positive | **High Priority**  
  • All household contacts; or  
  • Contact in a congregate setting (schools, detention facilities, etc.); and significant frequency and duration of exposure  
  **Any hours of exposure for:**  
  • Children < 5 years; or  
  • Contact with medical risk factors (e.g., HIV, immune compromising condition); or  
  • Contact exposed during specific medical procedures (bronchoscopy, sputum induction, or autopsy).  
  **Medium Priority**  
  • Anyone 5 – 15 years who does not meet one of the high priority criteria; or  
  • Contacts with significant frequency and duration of exposure.  
  **Low Priority**  
  • Only consider if expansion is warranted. |
| **Probable or confirmed pulmonary or pleural TB**  
  • Abnormal CXR consistent with TB disease; and  
  • AFB sputum smear negative; and  
  • Might be NAAT positive and/or AFB culture positive | **High Priority**  
  • All household contacts; and  
  • Contacts with significant frequency and duration of exposure.  
  **Any hours of exposure for:**  
  • Children < 5 years; or  
  • Contact with medical risk factors (e.g., HIV, immune compromising condition); or  
  • Contact exposed during specific medical procedures (bronchoscopy, sputum induction, or autopsy).  
  **Medium Priority**  
  • Contact in a congregate setting (schools, detention facilities, etc.); and  
  • Contacts with significant frequency and duration of exposure.  
  **Low Priority**  
  • Only consider if expansion is warranted. |

3. Calculate weekly and cumulative exposure hours.
   a. Contacts with greatest duration of time spent with case have highest risk of exposure and should be tested first.
   b. Extend testing to other contacts with less exposure only if significant transmission is observed.
4. Consider exposure setting (e.g. size, indoors/outdoors, windows).
5. **Do not initiate a CI without first prioritizing contacts.**

D. Conduct first and second round screening.
1. Initiate and complete first round screening within four weeks of identification.
2. Initiate screening for high priority contacts within seven working days of identification.
3. IGRA is the preferred testing method in Texas. TST may be used if IGRA is contraindicated or patient refuses phlebotomy.
4. Avoid testing individuals with low risk of infection.
5. A complete evaluation generally includes:
   a. a contact interview to obtain relevant medical history, including specific questions about symptoms of TB disease, previous positive IGRA or TST, and/or previous treatment for TB;
   b. administration, reading and interpretation of a TST or IGRA;
   c. a CXR; and/or
   d. collection of sputum or other specimens for mycobacteriology testing.
6. Begin second round screening eight to ten weeks after break in contact.
   a. Retest all contacts whose initial IGRA or TST results were negative after documented contact break with the index, including contacts started on window prophylaxis.
   b. Contacts whose IGRA or TST results are negative and asymptomatic at second round testing have received a complete evaluation.
   c. If a contact was identified after first round screening was initiated, they are still eligible for second round screening. Perform one test eight to ten weeks after break in contact for a complete evaluation.
E. Consider CI expansion if the infection rate is high or if TB transmission is detected; see Form TB-460 (*Expansion Analysis Check-List*).
   1. TB infection among high priority contacts indicates transmission.
      a. The TB Branch generally uses an infection rate of $\geq 20\%$. This percentage should be modified based on sentinel events and local data.
      b. An investigation should not be expanded without first reviewing results of screening results among high priority contacts.
   2. Other indicators of transmission include:
      a. positive tests in contacts less than five years of age;
      b. a change in TST or IGRA status from negative to positive among contacts between first and second-round testing; and
      c. contacts diagnosed with TB disease.
   3. As needed, request a consult with DSHS TB Branch epidemiologists to discuss whether an expansion to low-priority contacts is warranted. Submit consultation request to TBEpiEvaluation@dshs.texas.gov.

F. Notify the TB Branch of mass screenings or concerning CIs within 48 hours.
   1. Submit form EF12-12104 (*TB Incident Report*) or equivalent via PHIN for CIs involving:
      a. $> 50$ persons identified for screening in a single location;
      b. $> 25$ persons in a K-12 school; and/or
      c. media involvement.
   2. Seek consultation with TB Branch epidemiologists.
   3. Submit timely written updates to the TB Branch as updates are available. These may include the following:
      a. Bacteriologic or radiologic results
      b. Environmental assessments
      c. Contact prioritization
      d. Screening dates
      e. Screening methods
      f. Evaluation results
      g. Any other relevant details
   4. Mass screenings using DSHS-purchased supplies should not be performed without prior TB Branch approval.

G. Manage contacts to a relapsed case.
1. Retest those contacts whose prior TST or IGRA results were negative.
2. Test any new contacts identified since therapy was completed.

H. Conduct interviews throughout the client’s treatment period.
   1. For all contacts, document the date of identification and the date of break-in-contact with the index on Form TB-341.
   2. Re-interview client one to two weeks after initial interview to obtain and/or clarify missing data. Consider using different interviewers.
   3. Additional client and contact interviews may be required when:
      a. drug susceptibility results indicate drug resistance; or
      b. genotyping results indicate the client is part of a cluster.

I. Coordinate CI activities with medical staff and administrators in congregate settings within the TB program’s jurisdictions.
   1. Collect names and evaluation results of contacts in congregate facilities.
   2. Collect names and locating information for community contacts.
   3. Provide technical assistance and guidance when necessary.
   4. Consult DSHS Congregate Settings Coordinator as needed.

J. Conduct airline exposure screening based on notifications received from the TB Branch via the CDC Division of Global Migration and Quarantine (DGMQ).
   1. TB Branch epidemiologists will provide contact information for individuals exposed to an infectious TB case on an international flight.
   2. TB program staff will locate contacts and complete screening.
   3. Complete the DGMQ TB Contact Investigation Form and submit via PHIN to the TB Branch within two weeks of notification.
IX. Manage Contacts to Confirmed or Probable Tuberculosis Cases

General Requirement

TB programs will evaluate, treat, and monitor contacts to probable or confirmed cases of pulmonary, pleural, or laryngeal TB disease in accordance with current DSHS SDOs.

Activities

A. Evaluate high priority contacts. Consider the testing results of high priority contacts before addressing any medium or low priority contacts.
   1. Conduct medical evaluations of high-priority contacts. If the CI is expanded, evaluate medium-priority contacts.
   2. Face-to-face physician medical evaluation at diagnosis is preferable for initiation of treatment or resumption of medications.
   3. Refer for and obtain a CXR within 14 calendar days if, 1) the initial IGRA or TST result is positive and no history exists of a previously positive TB test, or 2) if the client reports signs and symptoms of TB regardless of IGRA or TST. TB programs with on-site radiograph equipment should obtain a CXR within ten (10) calendar days.
   4. Assess for TB disease if a contact tests positive and exhibits symptoms of TB disease and/or has an abnormal CXR.
   5. If the IGRA or TST result is positive and the CXR is normal and/or TB disease has been ruled out, consider treatment for TB infection.
   6. If a previously positive contact did not receive treatment for TB infection, evaluate for TB disease, which includes a symptom review and a CXR. If there is no indication of disease, consider treatment for TB infection.
   7. If a previously positive contact completed treatment for TB infection, further treatment may not be required unless recommended by the treating physician.
   8. Review and assess the completeness of the contact’s medical evaluation.

B. Consider DST results of the index case in determining a contact’s course of treatment.
1. All contacts to MDR-TB, pre-XDR, or XDR TB cases must receive a consult from a DSHS-recognized medical TB consultant.
2. For contacts treated with INH in the past and are now exposed to an INH-resistant case, rifamycin may be needed for the new exposure.
3. Provide DOT for contacts to MDR, pre-XDR, or XDR TB cases who are diagnosed with TB infection; consider VDOT as resources allow.

C. Follow DSHS SDOs in determining treatment regimens.
   1. Provide medications in accordance with DSHS SDOs.
   2. Document completion of treatment on the appropriate reporting form such as Form TB-400A or its equivalent.
   3. Document the reason medication was stopped, if treatment was not completed.
   4. Conduct at a minimum, monthly reviews of adherence to treatment for TB infection.
   5. Conduct monthly reviews to identify adverse reactions to treatment for TB infection.
   6. Contacts receiving treatment for TB infection who develop signs and/or symptoms suggestive of TB disease should have their medications held and receive a follow-up CXR before continuing treatment for TB infection.

D. Manage high-risk contacts.
   1. The decision to treat is based on a physician’s assessment and diagnosis. HIV-infected individuals may need the results of the smears, cultures, or other rapid diagnostic procedures on appropriate specimens to differentiate between TB infection and active TB disease.
   2. If the repeat TB screening test remains negative eight to ten weeks after break in contact to index case (beyond the window period), it is recommended that the following groups complete a full course of treatment for TB infection:
      a. Clients with HIV
      b. Clients receiving immunosuppressive therapy for organ transplant
      c. Clients taking TNF-α inhibitors
   3. If the repeat TB screening test remains negative eight to ten weeks after break in contact for children five years of age and under, then treatment can be discontinued. (Note: Children less
than six months of age should continue window prophylaxis until they undergo a repeat TST at six months of age).

E. Maintain a medical record for each person on treatment for TB infection, including those on window prophylaxis. The medical record should include at minimum the following DSHS forms (or local equivalent):

- TB 400A *(Report of Case and Patient Services)* with “LTBI only” section completed
- TB-202 *(Tuberculosis Health Assessment/History)*
- TB-203 *(Education/Counseling Record)*
- TB-204 *(Tuberculosis Forms/Literature Checklist)*-this form may be modified with updated literature used locally
- TB-205 *(Toxicity Assessment)*
- TB-206 when applicable *(DOT Log)*
- L-36 *(General Consent and Disclosure)*
- L-30 *(Consent to Release Confidential Medical Information)*
- TB 415 *(Disclosure and Consent for Drug Therapy TB Infection)*
X. Manage False Positive Investigations

General Requirement

TB programs will manage false positive investigations in accordance with local policies and procedures. TB programs may initiate a false positive investigation independent of the TB Branch.

Activities

A. Determine the need for a false positive investigation when:
   1. a single positive culture for *Mycobacterium tuberculosis* (*M.tb*) exists for a patient; and/or
   2. the treating physician suspects the clinical presentation is not consistent with culture findings.

B. Notify the local health authority if a false positive investigation is warranted.

C. Consider consulting with a DSHS-recognized TB medical consultant.

D. Initiate the false positive investigation.
   2. Contact the originating laboratory to determine source of the false positive result (e.g., lab contamination vs. specimen collection error).
   3. Use genotyping data to support the investigation.
   4. Upon conclusion, provide a letter summarizing the results of the investigation and include in the patient record, if warranted.

E. Request TB Branch assistance as needed.
   1. Submit a completed *False Positive Investigation Worksheet* with supporting documentation.
   2. The TB Branch will convene a meeting with appropriate parties to discuss findings.
   3. The TB Branch will provide a letter to the requesting TB program summarizing results of the investigation and conclusions.
   4. The TB Branch cannot provide treatment recommendations or confirm/refute the possibility of a false positive culture result. Tuberculosis is a clinical diagnosis and the patient’s treatment
plan should always be directed by clinical findings as determined by the licensed healthcare provider in conjunction with laboratory information.

F. Report closed cases due to false positive results to the Surveillance Branch with supporting documentation (e.g., amended laboratory report, medical consultation, provider notes) justifying change in case status within 45 days of closure.
XI. Conduct Targeted Testing

General Requirement

TB programs will identify high-risk groups and congregate settings for which testing for TB infection and disease is justified. The goal for targeted testing is to identify, evaluate, and treat populations at high risk for TB infection or at high risk for progressing to TB disease. TB programs will conduct targeted testing in accordance with DSHS standards.

Activities

A. Develop a targeted testing plan to identify and treat population groups at high risk for developing disease once infected.
   1. Identify the necessary resources for follow-up medical evaluation and treatment before initiating testing activities. Decisions to conduct targeted testing should be based on the ability to provide treatment services.
   2. Conduct TB testing activities *only* among high-risk groups and/or settings. Unfocused population-based testing is not cost-effective and drains limited resources.
   3. A decision to test is a decision to treat.
      a. Offer treatment for TB infection to clients, regardless of age, unless medically contraindicated once TB disease has been excluded.
      b. Provide clinician’s reason in the medical records as to why treatment was not recommended (e.g., alcohol addiction, drug abuse, mental illness, unstable housing, low-income, deportation, etc.).

B. Document targeted testing activities.
   1. Submit Congregate Settings Targeted Testing Monthly Report (DSHS form EF12-14427) to TB Branch no later than the second Friday of the month for testing from previous month.
   2. Track persons who start and/or complete treatment for TB infection or TB disease.
   3. Include targeted testing activities on the DSHS Annual Progress Report.

C. Analyze local epidemiologic data to assess the need for targeted testing, particularly congregate settings.
1. Complete a TB risk assessment for congregate settings where a targeted testing project is being considered (see Form TB-500).
2. Targeted testing projects may be offered in medium or high-risk congregate settings to include:
   a. homeless shelters;
   b. nursing homes;
   c. dialysis centers;
   d. residential facilities;
   e. social service programs for persons with HIV;
   f. drug and alcohol rehabilitation centers;
   g. methadone centers; and
   h. migrant farm worker camps.
3. Provide guidance to medium and high-risk facilities operating or starting a TB screening program.

D. Identify groups at risk for developing TB disease.
   1. Evaluate the following at-risk populations for TB infection in accordance with DSHS SDOs:
      a. Refugees;
      b. Class-B immigrants (see item H);
      c. Some medically underserved, low income populations defined locally as having an increased prevalence of TB disease
      d. Residents of high-risk congregate settings.
      e. Persons who inject illicit drugs or other groups of high-risk substance users (e.g., injection drug users, heroin, etc.)
   2. Complete the Targeted Tuberculin/IGRA Testing Screening Form (DSHS TB-207).

E. Conduct testing using TST or IGRA in accordance with DSHS-approved age requirements.

F. Assess effectiveness of targeted testing projects based on:
   1. TB infection yield;
   2. the likelihood of identifying infected individuals that will progress from TB infection to disease (risk classification); and
   3. TB treatment completion rates.

G. Evaluate Class-B immigrants.
   1. Use the Electronic Disease Notification System (EDN) to access Class-B immigrants assigned to the TB program.
2. Identify at least two persons that will be assigned to retrieve notifications, enter evaluation and treatment on the TB Work Sheet, and perform a final review of the TB Worksheet.

3. Contact the TB Branch to obtain access to EDN. It is the position of the TB Branch that all TB programs must access EDN to view notification of immigrants’ arrival in their jurisdiction and evaluate all class B immigrants assigned to their jurisdiction.

4. Notify the Branch when information is obtained indicating class B immigrants have moved. Provide the new location of the client and CDC will initiate transfer in EDN to reassign all electronic information to the receiving jurisdiction.

H. Initiate an appropriate medical evaluation within 30 days of notification.

1. Contact the client within three working days of notification to schedule an evaluation.

2. If a phone number is not available or if there is no response to the phone call within seven working days, send a letter to the home address listed in the EDN documents.
   a. If the only address listed is for a sponsor agency, contact the sponsor agency to verify the client’s address.
   b. If there is no response to the letter within ten working days from date sent, conduct a home visit.
   c. If all attempts to locate patient have failed, close the record and enter “lost to follow-up” on the EDN TB Follow Up Worksheet.

I. Complete the medical evaluation for all Class-B immigrants within 90 days of notification.

1. Review all pre-departure medical records.

2. Obtain a thorough medical history to include:
   a. previous history of TB;
   b. signs and symptoms of TB disease;
   c. prior BCG vaccination;
   d. prior treatment TB treatment;
   e. prior diagnostic evaluation for TB; or
   f. history of family or household contact with a known individual having a history of TB disease, treatment for TB disease, or diagnostic evaluation suggestive of TB.

3. Consider the following for children in this population:
a. A history of recurrent pneumonia, failure to thrive, and/or recurrent or persistent fevers. Any of these conditions should increase the provider's index of suspicion.
b. Children experience higher rates of extrapulmonary TB disease, including meningitis and disease of the middle ear and mastoid, lymph nodes, bones, joints, and skin.

Table 8. TB Follow-Up Worksheet

<table>
<thead>
<tr>
<th>Sections A and B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>• Pre-populated</td>
</tr>
<tr>
<td>and Jurisdictional Information</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Section C |          |
| Date of Initial U.S. Medical Evaluation | • Record date of initial evaluation. |
| IGRA or TST | • Administer TB screening test (IGRA or TST). IGRA is the preferred screening method where indicated. |
|            | • Record: date, brand and results of IGRA or TST used, and interpretation. (Note: Interpreting the TST results depends on patient’s risk factors. In otherwise healthy individuals ≥10mm of induration is considered positive. Induration ≥ 5 is considered positive for persons with HIV infection, those with recent close contact with known infectious case of TB, persons with fibrotic changes on CXR consistent with prior TB, persons with organ transplants, and other immunosuppressed persons). |
| U.S. Review of Pre-Immigration CXR | • Record any history of previous positive IGRA or TST. |
|                               | • Arrivals should bring their pre-immigration CXR film(s) or disk with them to the examination. |
|                               | • If the pre-immigration CXR is not available, mark “No”. |</p>
<table>
<thead>
<tr>
<th>Section D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation Disposition Date</td>
</tr>
<tr>
<td>Evaluation Disposition</td>
</tr>
</tbody>
</table>
- If the evaluation was initiated but not completed, check box “Initiated Evaluation/Not Completed.” Select reason(s) why evaluation was not completed from list below. Check all that apply and write or enter other reasons next to “Other, specify.”

- If the evaluation was never initiated, check the box “Did not initiate evaluation.” Choose the reason(s) why the evaluation was never initiated from the list provided. Check all that apply and write/enter other reasons next to “Other, specify.”

<table>
<thead>
<tr>
<th>Diagnostic</th>
<th>Mark the box corresponding to the ATS classification system that describes the client’s diagnosis.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment is inappropriate for Class 1 or 0. The EDN system will create an error message if treatment is recommended for either of these diagnoses.</td>
</tr>
<tr>
<td></td>
<td>If client is diagnosed as Class III, mark the site(s) of disease and contact the Surveillance Branch to report. Also contact the TB Branch Epidemiology Team if assistance is needed completing section D4.</td>
</tr>
</tbody>
</table>

**Section E** (Complete only if treatment was recommended in question D2.)

<table>
<thead>
<tr>
<th>U.S. Treatment Initiated</th>
<th>If treatment was initiated, mark “Yes,” and if “Yes,” specify TB disease or TB infection.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clients diagnosed as Class II or Class IV should receive treatment unless contraindicated.</td>
</tr>
<tr>
<td></td>
<td>Treatment must comply with DSHS SDOs and DOT provided where appropriate.</td>
</tr>
<tr>
<td></td>
<td>If treatment was not initiated, mark “No,” and specify the reason. Mark the appropriate boxes.</td>
</tr>
<tr>
<td></td>
<td>Check all that apply and enter other reasons next to “Other (specify)”</td>
</tr>
</tbody>
</table>

| Treatment Start Date | Specify date treatment was started (mm/dd/yyyy). |
| U.S. Treatment Completed | Leave this section blank until treatment has stopped.  
|                        | Save the worksheet in EDN, but do not “submit” until treatment is completed or ended.  
|                        | Mark the appropriate box to indicate whether treatment was completed or if it is unknown whether treatment was completed.  
|                        | If treatment was not completed, mark “No,” specify the reason and mark the appropriate boxes. Check all that apply and enter other reasons next to “Other (specify).”  
|                        | If treatment was completed, specify the date next to “Treatment Completion Date” (mm/dd/yyyy).  
|                        | If treatment was initiated but not completed, specify the date treatment ended (date client stopped taking treatment) next to “Treatment End Date” (mm/dd/yyyy). |
XII. Conduct Surveillance to Identify Unreported Individuals with Suspected or Confirmed TB

**General Requirement**

Develop and maintain TB surveillance mechanisms for early identification and reporting.

**Activities:**

A. Comply with the following:
   1. Designate at least one person with the ability to work on surveillance and case registry activities at least 85% of the time and at least one back-up person in their absence.
   2. Provide hardware and software necessary to conduct case registry activities (e.g., THISIS, access to web-based training and tools; PHIN access; access to WinZip or similar encryption software, etc.).
   3. Complete pre-requisite trainings (See Appendix N: DACTS Audit Tool)
   4. Maintain data security and confidentiality standards (see section XIV).

B. Contact providers who deliver TB services to at-risk populations to increase case reporting at least quarterly.

C. Educate and train providers and other key facilities on reporting.
   1. Provide education and training about TB reporting and surveillance to at least four of the following annually:
      a. Hospitals
      b. HIV clinics
      c. Homeless shelters
      d. Drug rehabilitation facilities
      e. Indigent care facilities
      f. Kidney dialysis facilities
   2. Training must include but is not limited to the following elements: TB case definition, when to report, how to report, and Texas legal reporting requirements (see [http://www.dshs.state.tx.us/idcu/investigation/conditions/](http://www.dshs.state.tx.us/idcu/investigation/conditions/)).
   3. Report these activities in the Annual Progress Report to the TB Branch.
D. Communicate with HIV/STD or general surveillance program staff in the local and regional health departments to identify unreported HIV/TB co-infections at least quarterly.
   1. Maintain documentation of these activities, then complete and submit the Surveillance Quality Assurance Template (SQA Template) via the PHIN to the Surveillance Branch within ten days after the end of each quarter.

E. Conduct Probable Case Investigations
   1. Investigate daily all open records of probable cases received from the Surveillance Branch within 24 hours of notification. The Surveillance Branch creates a probable case investigation based on the following circumstances when the RVCT has not been submitted by TB Programs:
      • Culture confirmation for M.tb or M.bovis and all other species contained in M.tb complex from the Electronic Laboratory Reporting System (ELR);
      • Culture confirmation for M.tb or M.bovis from genotyping;
      • Culture confirmation from the drug resistance program;
      • EDN notification or referral or transfer of ownership;
      • Vital statistics (death certificate) or a medical examiner’s report;
      • Hospital admission or discharge summary;
      • Pharmacy records dispensing TB drugs;
      • Infectious Disease Control Unit report of communicable disease;
      • Receipt of an out-of-state referral (IJN); provide status update within 30 days of notification; and
      • Initiation of a CI
      • Unreported source case identified
   2. Track all laboratory reports of AFB smear and culture results received locally within seven working days for NAAT, final AFB culture results.
   3. Resolve 100% of all probable case records within 45 business days of the Surveillance Branch notification. Open cases pending verification that are not received by the Surveillance Branch after 45 business days of TB programs receiving laboratory-confirmed culture or NAAT results, are delinquent.
4. Monitor all open suspected case record of TB in THISIS past 60-90 days and resolve within 120 days.
XIII. Reporting

General Requirement

TB programs must submit designated reports by established deadlines and schedules using DSHS-approved mechanisms. Managers must consolidate, verify, and sign off on all case counts for the current calendar reporting year.

Activities:

A. Submit all TB cases (ATS Class III) using the current DSHS and CDC-approved form (RVCT) and the CDC TB-published case criteria adapted in the DSHS Epi Criteria and TB Surveillance Definitions Guide, 2018 within 45 business days of identification of confirmed TB case to the Surveillance Branch via THISIS.

See http://www.dshs.state.tx.us/idcu/investigation/conditions/ for DSHS Infectious Disease Control Reporting webpage.

1. Complete Case Verification form to verify case criteria and count status
   - Case criteria
     o Laboratory confirmed
     o Clinical (pulmonary or extra-pulmonary)
     o Clinical by provider diagnosis
   - Count status
     o Counted
     o Not counted
       o Out-of-state or country transfer
       o Recurrent < 365 days
       o Binational
       o Out-of-state contact investigation
       o Out-of-state specimens processed in Texas

2. Include the minimum required data elements on the RVCT at time of initial report (See Figure 2):
   - Date reported
   - Complete first, middle, and last name
   - Date of birth
   - Race and ethnicity
   - Country of origin, if not U.S.
   - Date of entry into U.S.
   - Laboratory and clinical data necessary to meet case definition as applicable
   - Count status and date counted
• Verification of Texas residency: physical address, city, county, ZIP code with 4-digit code (within or outside city limits)
• If diagnosed while in a facility or shelter, provide facility or shelter name
• Initial drug susceptibility results, as applicable

3. Submit remaining RVCT data elements as required for NTIP Reporting and to fulfill federal cooperative agreements. See Report of Verified Case of Tuberculosis, CDC Tuberculosis Surveillance Data Training. U.S. Dept. of Health and Human Services, CDC, National
4. Submit CDC Follow-Up I and II Reports:
   - Submit a completed Initial Susceptibility Report (Follow-up 1) on all culture-confirmed cases to Surveillance Branch as soon as made available
   - Submit a completed Case Completion Report (Follow-up 2) on all culture-confirmed cases to Surveillance Branch as soon as completion data is made available
   - Provide a justification for any Follow-Up II reports submitted more than 90 days after medication stop date in RVCT comments
   - Provide the last date medication was given when treatment of the client stopped due to completion of adequate therapy, death, failure to locate, and/or 90 days’ passage since last medication dose.
   - For a case to be “recurrent”, the duration between the last known date when TB treatment stopped and the date when a new TB treatment regimen started must be less than 365 days. A “new investigation” means there have been more than 365 days between the last known date when TB treatment stopped and the date when a new TB treatment regimen started. Both instances require a new CI.

B. Maintain a digital or electronic log of all cases in their jurisdiction, by county and year reported or counted with the following:
   - Name;
   - Date of birth;
   - Complete address;
   - Contact information; and
   - RVCT (also referred to as the state case number).

C. Complete Forms TB-340 and 341, or Mass Contact Spreadsheet, within 90 days of initial case report in THISIS, once THISIS training has been completed. The initial contacts’ report requires the following:
   1. Part A. Case/Suspect Information
   2. Part B. Interview and Exposure Site Information
      - For every sputum smear positive case, ensure at least two different interviews seven days apart from each other.
      - If at least three contacts to sputum smear positive cases were not completely evaluated, provide reason.
      - If second interview was not conducted, provide reason.
   3. Part C. Contact information including:
      - Duration of exposure and setting
- HIV test results
- Priority status
- TST/IGRA test results
- CXR or other imaging date and interpretation
- Verification that a complete evaluation was performed. A complete evaluation for the purposes of the Contact Aggregate Report consists of a TST or IGRA result. If positive, a CXR date and a diagnosis with an ATS classification are required.
- A symptom screen must be complete for an evaluation to be complete.
- If evaluation was incomplete, provide a reason.

4. Update THISIS as “CI was indicated” if a contact investigation was initiated.
   - If contact investigation was not initiated, provide reason

5. Update THISIS with contact follow-up information including;
   - If treatment was recommended
   - If treatment was not recommended, provide reason
   - Treatment start date
   - Treatment stop date
   - If treatment was completed adequately
   - If contact did not complete treatment adequately, provide reason

6. Submit a follow-up report for contacts placed on treatment via PHIN. A report of contacts should be submitted no later than one year from the date the contact started treatment and must include treatment outcome.

7. Report contacts that develop active TB disease before submitting the subsequent contacts of those cases. Be sure to provide linking RVCT numbers.

8. Contact investigation that yields >49 contacts will be reported on the DSHS TB Mass Contact Spreadsheet. This spreadsheet should be requested from DSHS TB Surveillance consultants before use to ensure the most recent version is available.

D. Achieve 2020 National TB Program objectives and performance targets. TB programs are required to achieve each measure outlined in Table 9.

E. Report false-positive cases.
   1. The Surveillance and TB Branches will assist TB programs’ investigation of false positives either due to laboratory contamination or other misdiagnosis.
2. Any case closed as false-positive due to laboratory contamination or other reason must be reported to the Surveillance Branch with documentation to justify change in case status (e.g., amended laboratory report, doctor’s note, written medical consult, etc.) within 45 business days of closure.

3. Review all other specimens associated with a false-positive case to ensure they are culture-negative and the positivity rate remains below the community level.

4. Review any new IGRA or TST conversions identified during CI process.

Table 9. National TB Indicators Project (NTIP) Objectives and National Targets

<table>
<thead>
<tr>
<th>Forms TB-340 and TB-341 Reporting Information</th>
<th>NTIP Objectives</th>
<th>U.S. Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Elicitation</td>
<td>For TB clients with positive AFB sputum-smear results, increase the proportion who have contacts elicited.</td>
<td>100%</td>
</tr>
<tr>
<td>Examination/Evaluation</td>
<td>For contacts to sputum AFB smear-positive TB cases, increase the proportion who are examined for infection and disease</td>
<td>93%</td>
</tr>
<tr>
<td>Treatment Initiation</td>
<td>For contacts to sputum AFB smear-positive TB cases diagnosed with latent TB infection, increase the proportion who start treatment.</td>
<td>91%</td>
</tr>
<tr>
<td>Treatment Completion</td>
<td>For contacts to sputum AFB smear-positive TB cases who have started treatment for TB infection, increase the proportion who complete treatment.</td>
<td>81%</td>
</tr>
</tbody>
</table>

F. Prepare inter-jurisdictional notifications (IJN).
1. Any case, suspect, contact, or person with TB infection including Class B immigrants moving to other jurisdictions, either in- or out-of-state, will be transferred using the National TB Controllers Association (NTCA) IJN referral forms to ensure continuity-of-care and/or follow up.

2. The transferring jurisdiction must:
   a. Prepare appropriate referral Inter-Jurisdictional Notification (IJN) forms and send to the receiving jurisdiction when a suspect, case, contact or persons with latent TB infection moves to another jurisdiction, whether in-state, out-of-state, including Class B immigrants to ensure follow-up and continuity of care. For forms, see http://www.tbcontrollers.org/docs/resources/IJN_Form_May2015.pdf
   b. Send all applicable medical information, medical records, and chart information to the receiving jurisdiction through secure fax, contracted courier or U.S. Postal Service following DSHS security and confidentiality guidelines;
   c. Call to confirm receipt of the medical documentation at the receiving health department;
   d. Communicate directly with the staff of the receiving jurisdiction to ensure the IJN and all other necessary client medical information is received; and

   Follow up on the case periodically to ensure completion of treatment. It is the responsibility of the transferring jurisdiction to report when treatment is complete. This is reflected in the jurisdiction’s performance measures as per the CDC.

   Enter probable cases of TB in THISIS. (see Epi Case Criteria for TB, https://dshs.texas.gov/IDCU/disease/tb/policies/Epi-Case-Criteria-for-TB.doc)

   1. Complete suspected case of TB verification form to ensure criteria is met;
   2. Perform data entry of all RVCT variables in THISIS as applicable within two weeks of notification;
   3. Provide documentation if suspected case was placed in isolation and/or placed on a standard 4-drug regimen; and
   4. Update case completion information as soon as active disease is ruled out

   G. Incorporate quality assurance policies and procedures into surveillance activities.
   1. Generate all NTIP reports on a monthly basis
2. Request, collect, and update missing information in THISIS prior to generating the next month’s report.
3. Requirements for QA for TB Surveillance data are listed in Table 10.

Table 10. Requirement for Quality Assurance for TB Surveillance Data

<table>
<thead>
<tr>
<th>Summary of CDC’s Requirements for Quality Assurance for TB Surveillance Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB programs will incorporate policies and procedures into surveillance activities to ensure:</td>
</tr>
<tr>
<td>• Case detection (finding, counting, and reporting all TB cases);</td>
</tr>
<tr>
<td>• Data accuracy (accuracy of data abstracted from original client records, of registry data, and of data entered onto the RVCT form and transmitted to CDC);</td>
</tr>
<tr>
<td>• Data completeness;</td>
</tr>
<tr>
<td>• Timeliness; and</td>
</tr>
<tr>
<td>• Data security and confidentiality.</td>
</tr>
<tr>
<td>Develop written protocol for QA for TB surveillance data</td>
</tr>
<tr>
<td>• Describe how each of the QA components (case detection, data accuracy, data completeness, data timeliness, and data security and confidentiality) is being conducted.</td>
</tr>
</tbody>
</table>

Qualified Participants
• Central Office Reporting and Surveillance
• 24 State-designated case registries and TDCJ (25)
• State-contracted counties
• Texas Binational Programs (4)

Develop and implement plans for improvement


H. Review and submit designated reports received from jails that meet Texas Health and Safety Code Chapter 89 requirements to the TB Branch.
1. Submit monthly correctional TB screening reports within 15 business days of the following month to the TB Branch.
2. Collect Monthly Correctional TB Report (DSHS form EF12-11462) and Positive Reactor Suspect/Case Report (DSHS form EF12-11461) from those jails and community corrections that meet Texas Health and Safety Code Chapter 89 requirements within five (5) business days of following month.
I. Complete and submit Form TB-400 on all newly diagnosed drug-resistant cases within five business days of notification to the TB Branch via PHIN.
   1. Complete and submit an updated Form TB-400B every 90 business days for all drug-resistant cases until treatment completion to the TB Branch.
   2. Submit any changes in case management, drug resistance patterns, or residence in any drug-resistant TB case to the TB Branch within 72 hours of notification.

J. Submit an Annual Progress Report using the TB Branch template to TBContractReporting@dshs.texas.gov by April 15th of year.

K. Submit the PHIN, completed cohort review documents to the TB Branch in accordance with the listed cohort review period and submission schedule (See Section XIX).

L. Notify the TB Branch of concerning or mass screening CIs within 48 hours. Concerning CIs involve:
   1. Locations of interest include but are not limited to: academic institutions, day care centers, nursing homes, hospitals, correctional facilities (including community corrections), homeless shelters, airline exposures, other work settings, etc.
   2. Send a completed TB Incident Form (DSHS form EF12-12104) within 48 hours of the event through the PHIN to the TB Branch.
   3. The Incident Report Form can be found at http://www.texasTB.org.
   4. Contact a TB Branch epidemiologist to discuss the following:
      • Clinical presentation of the client;
      • Medical and social history of the client;
      • Screening method and results including test dates (initial round of testing);
      • Second round testing dates (planned);
      • Radiologic and bacteriologic status including NAAT results;
      • Infectious period;
      • Contact investigation forms;
      • Description of environmental assessment or planned environmental assessment;
      • Incident command response plan;
      • Results of epidemiologic assessment and next steps; and
      • Any other relevant details.
5. Submit timely written updates to the TB Branch as updates are available (or as requested) that may include the following:
   • NAAT results;
   • Environmental assessment to determine specific areas in which exposure occurred and the exposure period;
   • Stratification of contacts by risk;
   • Scheduled and actual dates of screening;
   • Screening methods (i.e. IGRA/TST);
   • Evaluation results based on risk stratification (all high risk contacts should be tested first to determine the need for expansion); and
   • Any other relevant details.

6. Submit a final epidemiologic update to the TB Branch after the investigation is closed.

M. Report mass screenings (contact investigations > 50 contacts) when using DSHS TB Branch-purchased supplies. Mass screenings should not be performed without prior TB Branch approval.
1. Every effort must be made to educate and inform the “worried well” regarding the TB screening process to ensure TB epidemiologic principles are applied at each CI event.
2. Use sound epidemiologic principles in contact investigations to ensure appropriate persons are identified for screening and to determine specific environments in which transmission may have occurred.
3. Mass screenings that are not epidemiologically guided drain limited resources and yield minimal results.

N. Conduct airline exposure screening based on notifications received from the TB Branch through the CDC Division of Global Migration and Quarantine (DGMQ).
1. TB Branch epidemiologists will contact TB programs to provide the name and phone number of the individual(s) exposed during the flight per the CDC DGMQ staff.
2. TB programs must notify airline contacts and instruct them to report to their health department for TB screening;
3. Screen contacts; and
4. Complete the DGMQ TB Contact Investigation Form and submit via PHIN to the TB Branch’s TB Epi Evaluation team within ten (10) business days of notification.
5. Provide RVCT and contacts to surveillance branch for data entry into THISIS

Q. Submit a report of adverse drug reaction to DSHS Pharmacy Branch. Fill out form EF12-12274 “Report of Serious Adverse Drug Reaction Resulting in Therapeutic Changes, Hospitalization, or Death” and send to the DSHS Pharmacy Branch within two (2) working days of notification of adverse event.

1. Once a DSHS pharmacist receives the report, they will review the information, contact the sender, if needed, and make the determination if a report to the Food and Drug Administration (FDA) should occur.

2. The DSHS Pharmacist will contact the sender for any further documentation needed, such as the TB 400A or TB 400B.

3. Once a determination by the treating prescriber is made for disposition (changes in regimen, resuming or discontinuing medication, for example), the DSHS pharmacist will update the “Pharmacy Only” section of the report and send the form back to the submitter to file in the patient chart.

4. While the Adverse Drug Reaction Form is intended to inform the DSHS Pharmacy Branch of the event, it is the responsibility of the treating prescriber to intervene as necessary and make any changes to regimen when indicated.

5. The DSHS Pharmacy Branch will keep a record of all events reported to the Branch for documentation purposes and to report to the FDA when indicated.
XIV. Implement Infection Control Procedures

General Requirement

TB programs will apply appropriate administrative, environmental, and respiratory controls to prevent exposure to and transmission of *Mtb*.

Activities

A. Develop a TB infection-control plan which includes administrative controls, environmental controls, and a respiratory protection program.
   1. Administrative controls reduce the risk of exposure to persons with infectious TB and may include the following activities:
      a. Assigning responsibility for TB infection control to a designated staff member
      b. Conducting a TB risk assessment (see DSHS TB-500)
      c. Developing and implementing a written TB infection control plan (See Appendix J)
      d. Ensuring the availability of recommended laboratory processing, testing, and reporting of results
      e. Implement effective work practices for managing clients with TB disease and infection
      f. Ensuring proper cleaning, sterilization, or disinfection of equipment and surfaces to prevent contamination
      g. Educating, training, and counseling health care workers, clients, and visitors about TB infection and disease
      h. Testing and evaluating clinic workers who are at higher risk for becoming infected with TB due to exposure to TB disease
         i. Maintain documentation in accordance with local record retention policies and procedures.
         ii. Review results of TB screening for employees at least annually.
      i. Applying epidemiology-based prevention principles, including the use of setting-related TB infection-control data
      j. Using posters and signs to remind clients and staff of proper cough etiquette and respiratory hygiene
      k. Coordinating efforts with high-risk healthcare or congregate settings to reduce and prevent exposure to TB
   2. Environmental controls prevent the spread and reduce the concentration of infectious droplet nuclei and may include the following activities:
a. Using local exhaust ventilation (e.g., hoods, tents, or booths) to control the source of infection.

b. Using general ventilation to dilute and remove contaminated air.

c. Using high-efficiency particulate air (HEPA) filtration, and/or ultraviolet germicidal irradiation (UVGI) to clean the air.

d. Controlling airflow to prevent the contamination of air in areas adjacent to airborne infection isolation (AII) rooms.

3. A respiratory protection program further reduces the risk of exposure to infectious droplet nuclei that have been expelled into the air from a client with infectious TB and may include the following activities:

a. Developing policies and procedures on respiratory protection, to include the type and size of respirators available to staff, routine inspection and maintenance, and appropriate use.

b. Providing N-95 fit testing to employees who share the same air space with clients suspected or diagnosed with infectious TB disease.

   i. Fit-test employees at risk for exposure to infectious droplet nuclei:

      • upon initial hire and then every 12 months;
      • when physical changes (e.g., weight loss, growth of facial hair) alter the fit of the respirator; and/or
      • whenever a different respirator is used (e.g., size, style, make, model).

   ii. Maintain documentation of employee fit-testing in accordance with local record retention policies and procedures.

c. Using N-95 respirators in situations that pose a high risk of exposure to TB disease.

d. Training health care workers on personal respiratory protection.

e. Educating clients on respiratory hygiene and the importance of cough etiquette procedures and providing surgical masks as needed.

f. Evaluating the effectiveness of the respiratory protection procedures through monitoring employees for conversion of TST or IGRA results.
B. Ensure all environmental control equipment are properly installed, operated and maintained.
   1. Outline the responsibility and procedures for all environmental control equipment maintenance in a written TB infection control plan.
   2. Maintain a log of all environmental control equipment maintenance in accordance with local retention policies and procedures.
   3. Document any training required for the proper operation of environmental control equipment and retain in accordance with local policies and procedures.

C. Ensure separation of infectious or potentially infectious clients from other clients in the clinic (e.g., separate clinic spaces or appointment times).
   1. Determine degree of infectiousness (see DSHS SDOs)
   2. Review DSHS SDOs to determine when a client is no longer deemed infectious.

D. Perform droplet nuclei producing procedures (e.g., bronchoscopy, sputum collection/induction) in an AIIR or booth, if available. For clinics without these capabilities, sputum specimens must be collected outside in a location that protects client confidentiality.

E. Conduct an environmental risk assessment (see Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings, 2005, https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm).
   1. TB programs that provide TB services to three or more TB clients in the last year should follow, at a minimum, TB screening recommendations for medium-risk settings.
   2. TB programs with fewer than three clients with TB disease in the last year should follow, at a minimum, TB screening recommendations for low-risk settings but may choose to follow the recommendations for medium-risk setting.
XV. Maintain a Competent Workforce

General Requirement

TB programs will provide professional education, training and orientation for new TB program staff and continuing education for current TB program staff.

Activities

A. Ensure all persons providing services under the SDOs or equivalent policies and procedures, have the requisite experience and/or training to deliver appropriate services. See Appendix K for TB training and education resources.

B. Provide orientation and training to all employees involved in TB activities, including physicians, nurses, contact investigators, outreach workers, case registry staff, receptionists, and other support staff.
   1. Initial training includes 40 hours of TB training specific to job duties within 90 days of employment:
      a. Use the CDC “Self-Study Modules on Tuberculosis” for the initial training (see http://www.cdc.gov/tb/education/ssmodules/default.htm)
      b. For registry and surveillance staff, initial training will include CDC “RVCT Self-Study Modules” (see https://www.cdc.gov/tb/programs/rvct/default.htm)
   2. Core training topics for TB program staff include:
      a. transmission and pathogenesis of TB;
      b. epidemiology of TB;
      c. diagnosis of TB infection and disease;
      d. treatment for TB infection and disease;
      e. TB reporting and notifiable conditions;
      f. cultural awareness; and
      g. interpreter utilization.
   3. Specialized training topics based on duties and responsibilities include:
      a. drug interactions and toxicity;
      b. TB CI;
      c. TB surveillance in hospitals and institutions;
      d. infectiousness and infection control;
      e. client adherence;
      f. interviewing, investigating and influencing techniques;
      g. directly observed therapy;
h. TB nurse casemangement;
i. TB program management; and/or
j. CDC TB surveillance and reporting.
4. TB program managers, nurses, contact investigators and case registry staff must participate in the TB Branch New Staff Orientation after three months of hire.
5. At least one case registry staff must participate in the monthly TB conference calls and all other required conference calls or trainings
6. TB program staff must complete 16 hours of continuing education each calendar year relevant to each staff member’s position.
7. Case registry staff must attend the annual medical records conferences and workshops to obtain current records management procedures.
8. Attend Heartland National TB Center trainings including webinars provided by all Regional TB Centers of Excellence, as needed.

C. Maintain documentation of training for all employees and contracted staff.
   1. Retain logs (Appendix L) for in-house trainings in accordance with local policies and procedures. Include:
      a. job titles;
      b. training dates;
      c. title of training or course; and
      d. number of hours.
   2. Retain copies of employee training certificates.
   3. Each medical director and/or local health authority must have sufficient access to training records to verify that those operating under their medical license have the requisite experience and training.

D. Notify the TB Branch of newly hired TB program managers, nurses, contact investigators and case registry staff within 30 days of hire. Submit the Notice of Change of TB Personnel form (http://www.dshs.texas.gov/idcu/disease/tb/forms/) to TBProgram@dshs.texas.gov.

E. Educate external stakeholders.
   1. Provide TB education and training, as resources allow, to:
a. schools;
b. correctional facilities;
c. community health care providers;
d. homeless shelters; and
e. social service providers who may serve populations at high risk for TB or where the consequences of disease transmission could be severe.

2. Maintain documentation (Appendix M) of all external stakeholder TB trainings (including the hours, topics, dates, group type, and number of participants) in accordance with local retention policies and procedures.

XVI. Monitor Budget Expenses

**General Requirement**

LHDs will monitor budget expenses and maintain records in accordance with DSHS contract general provisions. PHRs will monitor budget expenses and maintain records as outlined in DSHS policies.

**Activities**

A. TB programs are allowed a 25% maximum deviation from total DSHS funds to shift between direct cost categories (except equipment).

   1. If the budget transfer exceeds 25% of the total contract, alone or cumulatively, a formal contract amendment is required.
      
         a. Contractors shall provide notification of the budget transfer by submission of a revised Categorical Budget Form to the System Agency Contract Manager, highlighting the areas affected by the budget transfer.
         
         b. After review, the System Agency Contract Manager shall provide notification of acceptance to the contractor via email, upon receipt of which, the revised budget shall be incorporated into the contract.

   2. LHDs must notify the DSHS Contract Management Section (CMS) of any requests greater than 25% of their award, including any equipment and indirect requests. The equipment threshold is currently $5,000.

B. Submit requests for reimbursement or payment by the last business day of the month following the month in which expenses were incurred or services provided.

C. Lapse no more than one percent of federal and state funds. Lapsing above the maximum percentage may impact future allocations.

   1. At the beginning of each state fiscal year, maximize the use of federal funds FIRST as lapses may impact future CDC funding.
   
   2. The TB branch reserves the right to decrease funding amounts as the result of budgetary shortfalls and/or due to lapsing more than one percent of total funds.

D. Notify the Contract Management Section (CMS) if personnel change requires a contract amendment.
XVII. Monitor Surveillance, Reporting and Case Management Activities in Correctional and Detention Facilities

**General Requirement**

TB programs will monitor and participate in TB prevention and care activities in correctional and detention facilities, except Texas Department of Criminal Justice (TDCJ) facilities. The goals of correctional TB activities are early detection (case-finding), containment, treatment and prevention in correctional and detention facilities.

The TDCJ is responsible for directing TB care-related services within all prison units and community corrections under their purview. The TDCJ Health Services Division oversees medical services provided by contractors in state prisons and has the statutory authority and responsibility to ensure access to care, monitor the quality of care, investigate medical grievances, and conduct operational review audits of health care services.

Regardless of size and ownership, all correctional and detention facilities in Texas, including federal, state prisons, local jails and community correction facilities are subject to the provisions of the Communicable Disease Prevention and Control Act (Texas Health and Safety Code, Chapter 81, Rule§ 81.065, 2016) and other applicable federal and state laws.

**Activities**

A. Provide technical assistance on TB prevention and care for all correctional and detention facilities, except TDCJ facilities, and monitor compliance with state laws.

B. Promote TB screening and treatment.
   1. Offer guidance to promote appropriate and timely screening practices (e.g., symptom screening, testing with TST or IGRA).
   2. Provide medical oversight for TB cases, suspects and contacts.
   3. Provide consultation for TB infection treatment among high-risk groups.

   Note: The initiation of treatment for TB infection should include consideration and planning for the likelihood of client continuing and completing treatment under supervision or being released from the facility before completion of treatment.

C. Participate in discharge planning and continuity-of-care.
1. Facilitate discharge planning for inmates with confirmed or suspected TB who are scheduled to be released or transferred to other correctional facilities or jurisdictions.
2. Follow-up to ensure that TB cases and suspects continue TB treatment at the TB clinic nearest their residence or at the receiving correctional facility.
3. Provide continuity-of-care for employees and any inmates released to the community who are undergoing treatment for TB disease or infection.
4. Provide technical consultation to ensure adequate precautions are taken while transporting clients between correctional facilities or detention centers.
5. Refer foreign nationals to CURE-TB or TBNet for continuity-of-care coordination outside the U.S.

D. Coordinate, plan, and actively participate in CIs.
1. Conduct an interview to identify contacts and determine an inmate’s infectious period.
2. Provide TB education and counseling to client.
3. Assess TB transmission risk based on the index case’s degree of infectiousness, length of exposure to index, environmental factors and contact characteristics (e.g., HIV-positive).
4. Evaluate identified contacts based on CDC priority classification. (Note: TB testing may be conducted by the health department or the facility medical staff under the strict guidance of the health department).
5. Ensure that contacts start and complete treatment for TB infection or TB disease, as indicated.

E. Provide oversight for Texas Health and Safety Code Chapter 89 facilities (see http://www.statutes.legis.state.tx.us/Docs/HS/htm/HS.89.htm).
1. Review and submit Monthly Correctional TB Report (DSHS form TB EF-12-11462) and the Positive Reactors/Suspects/Cases Report (DSHS form TB EF-12-11461) to DSHS Congregate Settings Program no later than 15th day of each month.
2. To the extent funds are available, distribute Purified Protein Derivative (PPD) and syringes to correctional facilities that meet Texas Health and Safety Code, Chapter 89 criteria upon their request.
a. Chapter 89 facilities must submit the *Monthly Correctional TB Report* to the TB program by the fifth (5) working day of the following month.
b. Monitor monthly jail reports to ensure the number of TB tests reported justifies the amount of PPD and syringes provided.
c. Address suspected misuse of state funded supplies immediately with the correctional facility and report to the TB Branch.
d. Submit screening plans to DSHS Congregate Settings Program at CongregateSettings@dshs.state.tx.us.

3. Review correctional TB screening plans for completion and accuracy.
   a. Chapter 89 facilities must submit the *Correctional Tuberculosis Screening Plan* (form EF 12-11463) to the DSHS Congregate Settings Program for review and approval 90 days prior to the current Screening Plan expiration date or anniversary date.
   b. Prior to final approval, the TB Branch will forward the Screening Plan to the PHR or LHD for review. The reviewed Plan with the health department comments must be returned to the TB Branch within 10 days of receipt.
   c. Review and submit the *Tuberculosis Screening Plan* (form EF 12-11463) to the DSHS Congregate Settings Program for review and approval 90 days prior to the current Screening Plan expiration date or plan anniversary date.

F. Provide training and education to correctional facility staff, as resources allow; report on the DSHS Annual Progress Report.
XVIII. Initiate and Maintain Self-Auditing Practices

General Requirement

TB programs will implement practices that meet clinical and reporting quality standards and assure the appropriate use of state and federal funds.

Activities

A. Perform self-audits.
   1. Designate staff to review program practices to ensure services are delivered in accordance with DSHS program standards and as outlined in the TB Work Plan.
   2. Ensure medical record documentation include and follow current Texas Administrative Code requirements, Title 22, Part 9, Chapter 165, Rule §165.1.
   3. Develop a checklist to ensure the completeness of medical record documentation.

B. Ensure that the most current SDOs are reviewed and signed annually by authorizing physician (see DSHS TB Policy 5003 and 22 TAC §193.2).
   1. TB Program staff providing clinical or data services will sign/acknowledge understanding of SDOs and the policies and procedures under which SDO activities are performed.
   2. TB program managers will ensure that the SDOs and subsequent policies and procedures are reviewed and signed at least annually by employees delivering TB Services.
   3. TB program managers will submit signed attestation pages from the SDOs to the TB Branch by October 14th of each year. These may be submitted by email to the nurse administrator or placed in the jurisdiction’s designated NurseAdmin folder on the Texas Public Health Information Network (PHIN).

C. PHRs must provide technical TB support and guidance, as needed, to LHDs that provide TB services.
XIX. Conduct Continuing Quality Improvement Activities to Maintain a Robust TB Infrastructure

General Requirement

TB programs will evaluate their performance in meeting key measures including their process to maintain a robust TB infrastructure.

Activities

A. Update policies and procedures to support TB program performance evaluation and continuous quality improvement (CQI).

B. Conduct quarterly cohort reviews in accordance with the DSHS *Tuberculosis Cohort Review Policy* (DSHS Policy Number 7000).
   1. Compare treatment completion and contact evaluation rates by cohort periods and years to assess program progress.
   2. Identify trends that support or hinder effective TB prevention and care activities.
      a. Identify outcomes that fall short of local, state, and/or national performance objectives.
      b. Develop corrective action plans to improve outcomes.
   3. Complete the Cohort Review Summary and each individual Presentation Form. Submit summary and presentation forms along with a list of counted cases TB Branch via the PHIN. See Table 11 for cohort review periods and submission schedule.
   4. LHDs with fewer than six counted cases in a given year have the option of conducting an annual cohort review due by December 31st of the following year.

C. Perform routine case management review and document findings.
   1. Establish a case management or case review schedule.
   2. Identify deviations from established standards of care.
   3. Address any needed changes in treatment and case management.
Table 11. Cohort Periods and Submission Schedule

<table>
<thead>
<tr>
<th>Cohort period cases counted in:</th>
<th>Are reviewed and reported by:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st quarter</strong> (Jan 1. – Mar. 31) current year</td>
<td>Mar. 31 of the following year</td>
</tr>
<tr>
<td><strong>2nd quarter</strong> (Apr. 1 – Jun. 30) current year</td>
<td>Jun. 30 of the following year</td>
</tr>
<tr>
<td><strong>3rd quarter</strong> (Jul. 1 – Sep. 30) current year</td>
<td>Sep. 30 of the following year</td>
</tr>
<tr>
<td><strong>4th quarter</strong> (Oct. 1 – Dec. 31) current year</td>
<td>Dec. 31 of the following year</td>
</tr>
</tbody>
</table>

D. Use NTIP and Texas Performance Measures to assess progress toward achieving state and national objectives.

1. Identify TB program staff needing access to NTIP. At a minimum, this should include the TB program manager.
2. Contact the TB Branch for access to NTIP.

E. Meet Texas TB Performance Measures (see Table 12).

1. For FY20, reporting data will be drawn from calendar year 2019 (1/1/2019 – 12/31/2019)
2. If a program’s performance falls short of desired benchmarks, DSHS may (at its sole discretion) require additional measures to improve performance on a timeline set by DSHS.
3. Maintain documentation used to calculate performance measures as required by General Provisions Article VIII “Records Retention,” and by Texas Administrative Code Title 22, Part 9 Chapter 165, §165.1, regarding retention of medical records.
Table 12. Texas TB Performance Measures (FY20)

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Benchmark (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newly reported TB cases must have an HIV test performed, unless there is documented evidence of an HIV-positive result, or the client refuses.</td>
<td>91</td>
</tr>
<tr>
<td>All probable and confirmed TB clients are placed on DOT at the start of treatment†.</td>
<td>92.2</td>
</tr>
<tr>
<td>Newly reported probable and confirmed cases of TB are started on the standard four-drug regimen.</td>
<td>94</td>
</tr>
<tr>
<td>Newly reported clients ages 12 and older for whom TB was identified in the pleura or other respiratory site, must have sputum collected and tested for AFB smear and culture results*.</td>
<td>94</td>
</tr>
<tr>
<td>Newly reported cases of TB with AFB-positive sputum culture results must have documented conversion to sputum culture-negative within 60 days of initiation of treatment.</td>
<td>64.2</td>
</tr>
</tbody>
</table>
| Newly diagnosed TB cases that are eligible to complete treatment within 12 months must complete therapy within 365 days or less. Exclude the following TB cases:  
  • diagnosed at death;  
  • who die during therapy;  
  • who are resistant to rifampin;  
  • who have meningeal disease; and  
  • who are younger than 15 years with either miliary disease or a positive blood culture for TB.                                                           | 89            |
<p>| Increase the proportion of culture-confirmed TB cases with genotyping result reported.                                                                                                                                | 98            |
| TB cases with initial cultures positive for M.tb complex are tested for drug susceptibility with results documented in the medical record.                                                                          | 80            |
| Newly reported TB clients with a positive AFB sputum-smear result have at least three contacts evaluated as part of the contact investigation.                                                                         | 92            |</p>
<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Benchmark (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newly identified contacts identified through the contact investigation that are associated with a sputum AFB smear-positive TB case are evaluated for TB infection and disease.</td>
<td>79</td>
</tr>
<tr>
<td>Contacts identified to an AFB smear positive client and for whom TB infection was diagnosed must be started on treatment for TB infection within a week of diagnosis.</td>
<td>76</td>
</tr>
<tr>
<td>Contacts identified to an AFB smear positive client and for whom treatment was initiated for TB infection must complete treatment within the recommended time frame.</td>
<td>50</td>
</tr>
<tr>
<td>For Class-B immigrants and refugees whose overseas CXR results indicate consistent with TB, increase the proportion whose medical evaluation was initiated within 30 days of notification.</td>
<td>62</td>
</tr>
<tr>
<td>For Class-B immigrants and refugees whose overseas CXR results indicate consistent with TB, increase the proportion whose evaluation was completed within 90 days of notification.</td>
<td>45</td>
</tr>
<tr>
<td>For Class-B immigrants and refugees whose overseas CXR results indicate inconsistent with TB and subsequent evaluation in the U.S. reclassifies client as having TB infection, increase the proportion who start treatment for TB infection.</td>
<td>74.6</td>
</tr>
<tr>
<td>For Class-B immigrants and refugees whose overseas CXR results indicate inconsistent with TB and subsequent evaluation in the U.S. reclassifies client as having TB infection, increase the proportion who complete treatment for TB infection.</td>
<td>68</td>
</tr>
</tbody>
</table>

†The CDC recommends treatment initiation for TB clients with positive AFB sputum-smear results within 7 days of specimen collection.

*Report results to DSHS according to the surveillance reporting schedule.
XX. Court-Ordered Management

General Requirement

TB programs will manage non-compliant persons diagnosed with TB disease whose actions pose a public health threat. Court-ordered management ensures that:

1. non-adherent TB clients complete an adequate course of TB treatment;
2. clients receive appropriate evaluation and care when treatment is interrupted due to client’s violation of the terms of the signed control order; and
3. the public is protected from infectious TB patients who have refused voluntary isolation when their actions pose a public health threat.

The process outlined in this chapter should facilitate local and regional processes between the health department and local county/city attorney to establish legal justification for isolation. Refer to Health and Safety Code, Chapter 1, Communicable Diseases, Subchapter E. Control, 81.081. "A health authority has supervisory authority and control over the administration of communicable disease control measures in the health authority’s jurisdiction unless specifically preempted by the department.” See https://statutes.capitol.texas.gov/Docs/HS/htm/HS.81.htm#81.081

Definitions

Application for Extended Management (DSHS form 86963_1): Also referred to as Motion for Extended Management (MEM). This is the application to the court for the management of a person with a communicable disease. This refers to the full application that is used in the court order process.

Motion for Protective Custody (MPC) (DSHS form 86964_1): Also referred to as Order of Protective Custody (OPC). An order to have the patient detained in appropriate isolation for a short period of time. This option is only available if the patient is an immediate threat to the public at the time the order is sought.

Non-adherent: is the failure to comply with the health authority’s written control order (TB-410). Examples of this may include but not limited to missing medication and failure to follow respiratory isolation which precludes
safe and effective TB therapy and presents a potential for public health impact.

**Activities**

TB programs will seek court-ordered management only as a last resort.

A. Ensure the following is done prior to initiating court-ordered management:
   1. Client has been issued the *Health Authority Control Order* (Form TB-410) acknowledging understanding of treatment and compliance expectations.
      a. This document should be signed by the provider and the patient.
      b. Maintain clear documentation if the client refuses to sign.
   2. Clients with probable or confirmed TB disease understand their role in receiving treatment and care for TB.
   3. Clients understand services they will receive from the local TB program for successful treatment outcomes.
   4. Document any breach of expectations outlined on Form TB-410 (e.g., missed DOT, attempts to reach client) in the client’s medical record.

B. Include the following in the client’s medical record:
   1. A description of the physical and mental condition of the client.
   2. The degree of infectiousness.
   3. Proposed threat to public health and supporting documentation of clinician, health authority, or DSHS-recognized medical consultant.
   4. A description of non-compliant behaviors and the steps taken to address non-compliance to include all attempts taken to contact the patient.
   5. Documentation from the clinician, health authority or DSHS-recognized medical consultant if the patient has converted to smear negative but is expected to become infectious again.

C. Begin the court-ordered management process.
   1. The DSHS 86749_1 (*Health Authority's Affidavit of Medical Evaluation*) must be filed in the district court in the county where the person 1) resides, 2) is found, or (3) is receiving court-ordered health services.
2. As soon as it is identified that a client will be court-ordered, the local health department will inform TCID of possible commitment to their facility. The TCID admission process must be followed and transportation* arranged by the managing jurisdiction.
   a. TCID serves as the designated facility for patients who are court-ordered for extended management in Texas.
   b. TCID will not accept patients with an MPC as they are not a holding facility. For clients with an MPC, the local TB program must secure a holding facility prior to this motion.

3. The local TB program will notify the local jurisdiction’s district attorney, their PHR regional medical director and DSHS Office of General Counsel of impending application for Court Order Managed Care and/or Order of Protective Custody.

D. Initiate court-ordered management proceedings. Forms are located at https://www.dshs.state.tx.us/idcu/disease/tb/forms/#CourtOrder

1. Complete the Health Authority’s Affidavit of Medical Evaluation (DSHS form 86749_1) which is Exhibit A of the application. This document should specify reasons an order for commitment is being sought. Indicate these reasons on line number seven.

2. Present to the local health authority for signature the following:
   a. Exhibit A (this will need to be notarized),
   b. Exhibit B, this is the Health Authority Control Order (TB-410), and Exhibit 1A, which includes all medical notes, reports, etc.
   c. (DSHS form 86749_1, TB 410, and Exhibit 1A information) need to be faxed to the DSHS General Counsel’s office at (512) 776-7751.

3. The Office of General Counsel will obtain the Commissioner of Health Concurrence and provide this document to the local TB program by fax. The original concurrence will be mailed to the local health department to be placed in the patient’s medical record.

4. Once all forms are completed, follow local procedures as directed by the local attorney, who will likely file an Original Petition for either a MPC or MEM.
   a. A commissioner’s concurrence for MPCs is not needed.
   b. The health authority or treating physician will be asked to testify. It is recommended that the nurse case manager also attend this hearing as directed by the local attorney.
*Texas Health & Safety Code Sec. 81.179. Transportation of Person.*
(a) The court shall order the sheriff or constable to transport the person to the designated health care facility. (b) A female shall be accompanied by a female attendant during conveyance to the health care facility. (c) The health authority or department shall instruct the sheriff or constable on procedures that may be necessary in transporting the person to prevent the spread of disease.
XXI. Confidentiality and Security Standards

General Requirement

TB programs will perform activities outlined in this plan in accordance with applicable state and federal security and confidentiality standards, policies and guidelines, including but not limited to:

- Federal HIV/AIDS Security and Confidentiality guidelines,
  https://www.cdc.gov/nchhstp/programintegration/docs/pcsidatasecurityguidelines.pdf;
- DSHS Policy 2016.01, *TB/HIV/STD Section Confidential Information Security Procedures*,
  https://www.dshs.state.tx.us/hivstd/policy/procedures/2016-01.shtm;
- DSHS Policy 2011.01, *Confidential Information Security Policy*,
  https://www.dshs.state.tx.us/hivstd/policy/policies/2011-01.shtm; and,

Activities

A. Submit documentation to the TB/HIV/STD (THS) Unit Security Officer that all staff and subcontractors working on activities outlined in this TB Work Plan have received annual training on:
   1. employee standards of conduct; and
   2. DSHS security and confidentiality training course with a passing score of 85% or above.

B. Submit inquiries related to database access and security training to TBHIVSTD.AccountRequest@dshs.texas.gov.

C. Ensure that all newly hired staff successfully complete confidentiality and security training provided by DSHS within 30 days of hire.

D. Complete an annual refresher training course on confidentiality requirements/confidential information security (i.e., within one year of having taken the previous confidentiality and security course).
E. Submit all appropriate documentation of confidentiality and security training to TBHIVSTD.AccountRequest@dshs.texas.gov within ten (10) days of completing each course.

F. Designate and identify a HIPAA Privacy Officer authorized to act on behalf of the TB program in developing and implementing requirements outlined in federal and state privacy laws.

G. Designate a TB program staff (e.g., TB Program Manager) to serve as the Local Responsible Party (LRP); the LRP will:
   1. Ensure appropriate policies/procedures are in place for handling confidential information, releasing confidential TB/HIV/STD data, and for the rapid response to suspected privacy incidents of protocol and/or confidentiality.
      a. These policies and procedures must comply with DSHS policies and procedures.
      b. TB Programs may choose to adopt DSHS policies and procedures as their own.
   2. Approve and validate (provide signature) any program staff requiring access to TB/HIV/STD confidential information.
      a. The LRP will grant authorization to program staff who have a work-related need to view TB/HIV/STD confidential information.
         i. Complete the LRP fields on the Account Request form.
         ii. Send an email to TBHIVSTD.AccountRequests@dshs.texas.gov and copy the individual requesting access. The email should include:
             • a statement verifying this person is under your authority;
             • individual’s security training certificate;
             • access request form;
             • confidentiality agreement; and
             • acceptable use agreement form.

(Note: Emails for access requests that do not include the required documents will be returned. Email should only request access for one individual. Requests for multiple employees will not be accepted. Maintain email correspondence as part of your records). All current
forms and instructions can be found at https://www.dshs.texas.gov/thsvh/account.shtm.

3. Maintain a current list of authorized staff personnel who have been granted permission to view and work with TB/HIV/STD confidential information, in accordance with DSHS TB/HIV/STD Local Responsible Party Handbook, Required Documentation section.

4. Maintain all copies of current confidentiality forms and training certifications (e.g., personnel files, staff training records).

5. Conduct a monthly review authorized user list throughout the fiscal year beginning ten (10) days from September 1st of each year.

6. Train all program staff with access to confidential information on TB/HIV/STD security policies and procedures, including federal and state privacy laws and policies before access to confidential information is granted.

7. Ensure all staff members (including IT personnel, contractors, mailroom and custodial staff) with access to identifiable public health data complete confidentiality and security training.

8. Consult with THS Unit Security Officer regarding all suspected privacy incidents of protocol and confidentiality in compliance with the DSHS Program Policy TB/HIV/STD Breach of Confidentiality Response Policy.
   a. Investigate and complete privacy incident reports.
   b. Limit or restrict access to confidential information for an involved user until the privacy incident investigation is complete.
   c. Establish and/or enforce corrective or disciplinary actions when needed.


10. Incorporate the following security procedures:
   a. Ensure computers and networks meet DSHS security standards.
   b. Submit requests for TB/HIV/STD systems user account terminations to DSHS within one business day of identifying the need for account termination.
   c. Identify point of contact for changes in user access to secure data, secure network, secure reason and for
receipt of notifications once a user account has been terminated.

d. Transfer secure data electronically via PHIN.
e. Maintain a visitor’s log for individuals entering secured areas and LRP conducts quarterly reviews of this log.
f. Verify user password changes occur at least every 90 days.
g. Ensure that portable devices used to store confidential data are approved by the LRP and encrypted.

H. Ensure confidential data are:
   1. Maintained in a secured area when not in use;
   2. Not left in plain sight; and
   3. Shredded with a cross-cut feature before disposal.

Appendix A: Sample Letter for Child Window Prophylaxis

<Insert date>

<Insert patient name>
<Insert patient address>
<Insert city, state, zip code>

Dear <Insert name of parent/guardian>,

I have recommended that your child, <name of child>, be placed on preventive treatment to protect <him/her> from contracting tuberculosis. Your child was exposed to someone with tuberculosis and taking the medication will decrease <his/her> chance of becoming sick.

Children under the age of 5 years who are exposed to tuberculosis are at greatest risk of rapidly developing disease that can be life-threatening. To prevent this from happening, your child must take treatment observed by (name of LHD/PHR) for at least the next <number of weeks recommended> weeks. We will do a second tuberculosis skin test in <number of weeks> weeks and if the test remains negative, we will discontinue the medication. If the test comes back positive, we must continue treatment for <length of treatment> to prevent the infection from developing into active disease.

If you do not comply with the treatment, you will be endangering your child’s health which may result in the (name of the LHD/PHR) contacting Child Protective Services. It is my hope that we can work together to ensure the health of your child. I appreciate your assistance in this matter. If, at any time, you have questions or concerns, please contact <phone number here>.

Sincerely,

<Insert Your name, Title>
Appendix B: Sample TB Program and Private Physician Agreement Letter

<Insert date>

Dear <Insert private provider’s name>,

On <date reported to TB Program>, our office was notified that <Insert client’s name/DOB> had <Insert diagnostic findings, e.g. "an abnormal CXR showing cavitation, AFB sputum was smear positive”>. He/she was reported to <Insert PHR/LHD> and upon my review, he/she has been diagnosed with <suspected/confirmed> Mycobacterium tuberculosis.

We discussed this case on <date> and you have indicated that you will remain the patient’s treating physician. You have also agreed to coordinate care with <LHD/PHR> in the following way:

<Insert private provider’s name> will:

(list below in detailed bulleted form, such as:)

- Follow the prescribed TB regimen based on TB program recommendations (regimen is based on national guidelines for the treatment of drug-susceptible TB)
- Perform monthly laboratory tests as indicated and recommended by the TB program
- Perform routine physical exams
- Refer for radiology when indicated
- List other details as appropriate

The <LHD/PHR> TB Program staff will:

(list below in detailed bulleted form, such as:)

- Order medications from the DSHS pharmacy
- Provide directly observed therapy (DOT) on ____________ (days) to this client
- Provide DOT results on a monthly basis for visibility of client’s adherence to treatment
- Contact your office ____________ (frequency) for copies of diagnostics,
progress notes, and updates in patient status

- Collect _____________(frequency) sputum samples for AFB smear and culture, and send results to your office
- Keep the patient in airborne infection isolation until (criteria here)
- Maintain contact with your office _____________ (frequency) until completion of therapy
- Conduct an appropriate contact investigation following DSHS guidelines

Thank you for your partnership and please do not hesitate to contact <Insert point of contact, e.g., MD or TB Program Manager/Nurse Case Manager> for any concerns or change in the patient’s plan of care.

Sincerely,

<LHA name signature>
<LHA Printed Name>
Appendix C: Sample Correspondence Letter for Clients Treated by Private or Community Providers

Date:
Provider’s Address
Subject: (Include Client’s Full Name and DOB)
Dear <Insert private provider’s name>:

The <Insert HPR/LHD> TB Program requires a monthly status report on the above-named patient who is under your care for the treatment of tuberculosis.

Please complete all sections of the attached Medical Update Form and return within seven (7) days to (insert name of recipient, physical address, and fax number). Please include any additional radiology and/or laboratory reports of acid fast bacilli testing such as smear, culture or sensitivity results.

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) indicate that protected health information (PHI) can be shared for public health, without individual authorization, to a public health authority. See [45 CFR 164.512(b)].

Thank you for your partnership and please do not hesitate to contact our office at <Insert number> if you have any questions.

Sincerely,

<Insert name and contact information>

Appendix D: Sample Medical Update Form for Clients Treated by Private or Community Providers

Medical Update Form*

Patient: __________________________ Date of Visit: __________________________

Date of most recent physical exam: __________________________ Weight: __________________________

Symptoms:

☐ Cough (if present specify):
  ☐ productive
  ☐ unproductive
☐ Weight loss
☐ Decreased appetite
☐ Hemoptysis
☐ Fever
☐ Chest pain
☐ Fatigue
☐ Night sweats
☐ Chills

Medications, frequency, and dosages:

Bacteriology:

Results of most recent chest X-ray (if abnormal, please indicate whether X-ray is stable, worsening, or improving):

TST or IGRA results:

<table>
<thead>
<tr>
<th>☐ TST</th>
<th>☐ IGRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date administered:</td>
<td>Type of IGRA:</td>
</tr>
<tr>
<td>Date read:</td>
<td>Date:</td>
</tr>
<tr>
<td>Millimeter reading:</td>
<td>Result:</td>
</tr>
</tbody>
</table>

HIV Status:
Date TB treatment initiated:

Number of doses completed:

If completed, date of completion:

Comments:

*Adapted from “Tuberculosis Case Management: A Guide for Nurses”, by Rutgers Global TB Institute, 2017.*
Appendix E: Additional Client Services

This is a list of federal, state, and county services available to patients who may need help supporting their medical care outside of tuberculosis disease management. The agencies below cover many aspects of medical care, from primary health services to low cost pharmacies to clinics that support patients regardless of their residency. Refer patients to agencies or programs depending on need.

Services for Children

Texas Health Steps

One of the benefits of Texas Health Steps is case management for those who need it. Case management helps families with Medicaid get services their children need—whether the services are for medical or dental needs, medical supplies and equipment, school or education issues, or other issues.

http://www.txhealthsteps.com/cms/

Children’s Health Insurance Program (CHIP)/Medicaid

Jointly funded state-federal programs developed to help Texas Families obtain and utilize affordable coverage for uninsured children (ages 0-18). CHIP helps families who earn too much money to qualify for Medicaid, but cannot afford to buy private insurance. Programs generally cover regular checkups, immunizations, prescription drugs, lab tests, X-rays, and hospital visits. Under CHIP, cost sharing for prescription drugs is based on family income as a percentage of the Federal Poverty Income Level (FPL).

CHIP/Medicaid 1-877-KIDS-NOW (1-877-543-7669)

Children with Special Health Care Needs (CSHCN), Texas Health and Human Services

The CSHCN services program provides medically necessary care to Texas children with special health care needs. The program is the payer of last resort – all other medical benefits must be used first. Eligibility requirements apply. Participants must re-apply for benefits at six months. CSHCN offers a full range of services, including primary care, specialty care, durable equipment, transportation, and medicines.

https://hhs.texas.gov/services/disability/children-special-health-care-needs-program; cshcn@dshs.state.tx.us Toll free number: 1-800-252-8023
General Primary and Specialty Services

**Federally Qualified Health Centers (FQHCs)**

FQHCs provide comprehensive health care services to underserved communities. Many of the Texans they serve are indigent, uninsured and underserved. Some FQHCs offer additional services, such as dental, mental health or substance abuse treatment. FQHCs are community organizations with defined target populations and service areas. Services are provided to Medicare, Medicaid, CHIP, Insured and Uninsured individuals. Patients may be eligible for services based on their family income and on a sliding fee schedule.

https://www.dshs.state.tx.us/chpr/fqhcmain.shtm

**County Indigent Health Care Program**

The County Indigent Health Care Program (CIHCP) was established by the Indigent Health Care and Treatment Act authorized by the 69th Texas Legislature in 1985. CIHCP provides health care services to eligible residents through the counties, hospital districts and public hospitals in Texas. Programs shall be administered in accordance with [Chapter 61, Health And Safety Code](https://www.dshs.state.tx.us/chpr/fqhcmain.shtm), and [Texas Administrative Code, Title 25, Part 1, Chapter 14](https://hhs.texas.gov/services/health/county-indigent-health-care-program).

Eligibility requirements apply including household income. County Indigent health care programs offer a full range of services, including primary care, specialty care, durable equipment, and medicines.

https://hhs.texas.gov/services/health/county-indigent-health-care-program

**Texas Association of Community Health Centers (TACHC)**

The Texas Association of Community Health Centers (TACHC) is a private, non-profit membership association that represents safety-net health care providers in the state of Texas. TACHC members include Community and Migrant Health Centers, Health Center Networks and other providers who strive to meet the healthcare needs of the uninsured and underserved.

TACHC serves as the federally designated primary care association for the state of Texas. [https://www.tachc.org/find-healthcare-center](https://www.tachc.org/find-healthcare-center)

**Other Benefits and Resources**
Medicaid

Jointly funded state-federal healthcare program established in Texas in 1967. The Social Security Act specifies a set of benefits that state Medicaid programs must provide and a set of optional benefits that states may choose to provide. Eligibility requirements apply. The range of services provided include inpatient/outpatient hospital, lab and X-ray, physician services, nursing facility care, home health care, and Texas Health Steps medical and dental plan for persons under age 21.

http://www.tmhp.com/Pages/default.aspx

Your Texas Benefits

This site allows you to apply for health and human services, including Medicaid, Children’s Medicaid, Children’s Health Insurance Program (CHIP) and other programs online. http://www.tmhp.com/Pages/default.aspx

2-1-1 Texas

2-1-1 Texas, a program of the Texas Health and Human Services Commission, is committed to helping Texas citizens connect with the services they need. Call 211 or click on link below to locate services in your community. https://www.211texas.org/

Low Cost Pharmacies and Medications

Medication Assistance Programs

Many pharmaceutical companies, non-profit organizations, and state/national agencies provide access to low-cost medications that are prescribed by healthcare providers. Click the link below for a list of resources for low or no-cost prescription medicines, including eligibility requirements and contact information.

https://www.staterxplans.us/texas.html

Transportation Services

LogistiCare

LogistiCare helps state governments and managed care organizations run transportation and integrated health care programs – affording more than 24 million covered plan members better access to care in their communities.

https://www.logisticare.com/
### Appendix F: Medical Consultation Templates

#### Sample 1: Complex Patient

<table>
<thead>
<tr>
<th>Date Submitted:</th>
<th>PHR/LHD:</th>
</tr>
</thead>
</table>

#### Case Demographics

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date of Birth:</th>
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<table>
<thead>
<tr>
<th>Age:</th>
<th>Treating Provider:</th>
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</table>

<table>
<thead>
<tr>
<th>Sex:</th>
<th>Nurse Case Manager:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Female</td>
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<table>
<thead>
<tr>
<th>Diagnosis: (e.g., MDR-TB, disseminated TB)</th>
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</table>

<table>
<thead>
<tr>
<th>Co-morbidities/TB risk factors: (e.g., diabetes, HIV, history of incarceration)</th>
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<table>
<thead>
<tr>
<th>TB History: (e.g., previous TB treatment, regimen, date of treatment completion)</th>
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<table>
<thead>
<tr>
<th>Resistant to:</th>
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<table>
<thead>
<tr>
<th>Susceptible to:</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Treatment Start Date:</th>
<th>Initial Treatment Regimen (medications):</th>
</tr>
</thead>
</table>
**Changes in Treatment Regimen**: (e.g., if injectable for how long he/she received injectable; please provide drug-o-gram or equivalent)

**Current TB Regimen**: (medication/doses list with dates started or provide drug-o-gram)

**Symptoms at Diagnosis**:
- ☐ Cough
  - ☐ productive ☐ non-productive
- ☐ Fever/Chills
- ☐ Night sweats
- ☐ Loss of appetite
- ☐ Weakness
- ☐ Weight loss
- ☐ Chest pain
- Other:
  - Weight at diagnosis/BMI: / 

**Bacteriology**: (List should include date collected, specimen type, test, and results)

<table>
<thead>
<tr>
<th>Date Collected</th>
<th>Specimen Type/Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Converted cultures?** ☐ Yes ☐ No Date converted:

**Isolation status**: 

**Chest X-ray**: (indicate what was noted on report)

<table>
<thead>
<tr>
<th>Baseline Date</th>
<th>☐ Normal ☐ Cavitary ☐ Non Cavitary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read:</td>
<td>☐ Normal ☐ Cavitary ☐ Non Cavitary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current date:</th>
<th>☐ Normal ☐ Cavitary ☐ Non Cavitary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read:</td>
<td>☐ Normal ☐ Cavitary ☐ Non Cavitary</td>
</tr>
</tbody>
</table>

**Current Status**

**Current weight/BMI**: /

**Current labs**: (attach if needed)
HIV results:  □ Negative  □ Positive (if applicable)
CD4:  □ Viral load:

Abnormal labs:

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal</th>
<th>Abnormal</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EKG (BDQ/DLM)</td>
<td>□</td>
<td>□</td>
<td>☐</td>
</tr>
<tr>
<td>Visual Acuity: (EMB or LZD)</td>
<td>□</td>
<td>□</td>
<td>☐</td>
</tr>
<tr>
<td>Ishihara Plates: (EMB or LZD)</td>
<td>□</td>
<td>□</td>
<td>☒</td>
</tr>
<tr>
<td>Neuropathy Checks (INH, ETA, LZD)</td>
<td>□</td>
<td>□</td>
<td>☐</td>
</tr>
<tr>
<td>Hearing Test (Injectable)</td>
<td>□</td>
<td>□</td>
<td>☐</td>
</tr>
<tr>
<td>Psychological Evaluation (Cycloserine)</td>
<td>□</td>
<td>□</td>
<td>☐</td>
</tr>
</tbody>
</table>

(Any abnormal results or changes to baseline provide detailed forms showing trends and status)

Current Symptoms: (Compare with symptoms at diagnosis, e.g., appetite improved, symptoms at diagnosis improved, improved energy?)

Adherence to treatment:

Reason for consult:
## Sample 2: Routine Consult

<table>
<thead>
<tr>
<th>Patient name</th>
<th>Age:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight:</td>
<td>Medical history:</td>
</tr>
<tr>
<td>TB history:</td>
<td>TB risk factors:</td>
</tr>
<tr>
<td><strong>Signs and symptoms upon admission to clinic/hospital:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Imaging results:</strong> <em>(e.g., CXRs, CT scans)</em></td>
<td></td>
</tr>
<tr>
<td><strong>HIV result</strong> <em>(if applicable):</em></td>
<td></td>
</tr>
<tr>
<td>CD4:</td>
<td>CBC: <em>(baseline and most recent)</em></td>
</tr>
<tr>
<td>Viral load:</td>
<td></td>
</tr>
<tr>
<td><strong>CMP:</strong> <em>(baseline and most recent):</em></td>
<td><strong>Results of therapeutic drug monitoring:</strong> <em>(if applicable):</em></td>
</tr>
<tr>
<td><strong>Other labs:</strong> <em>(as applicable)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Medications:</strong> <em>(list dosages, start/stop dates, dates of interruption in therapy)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Bacteriology:</strong> <em>(list test, specimen type, collection date, and result)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Current status of patient:</strong> <em>(provide details of clinical status, DOT, etc.)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Reason for consult:</strong> <em>(clearly state reason for consultation)</em></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G: Process for Requesting Molecular Detection of Drug Resistance (MDDR) Testing

The MDDR test is a way to rapidly and accurately detect potential drug resistance in *Mycobacterium tuberculosis* complex (MTBC). MDDR is performed on positive MTBC cultures or on patient specimens that are positive by nucleic acid amplification tests (NAAT) such as the polymerase chain reaction (PCR). MDDR is performed at the Centers for Disease Control (CDC) Reference Laboratory.

**Indications for Submitting MDDR**

Isolates of MTBC and NAAT positive processed specimens may be submitted by U.S. Public Health Laboratories for MDDR if one or more of the following criteria is met:

- Known multi-drug-resistant (MDR) TB (by culture-based drug-susceptibility testing [DST]).
- Known Rifampin resistance (by NAAT or by culture-based DST).
- Contact to known MDR TB case.
- Previously treated for *Mtb*.
- From a country with a high rate of drug-resistant TB.
- Travel to/lived in a country with a high rate of drug-resistant TB.
- Patients where the result of drug resistance will predictably have a high public health impact (e.g., daycare workers, nurses).
- Patient is known to have certain adverse reactions to critical anti-TB drug (e.g., unable to tolerate rifampin).
- Other situations considered on a case by case basis (*must have a consult from a DSHS-recognized medical consultant. Contact information can be found at: http://www.dshs.texas.gov/idcu/disease/tb/consultants/*)

**DSHS Process for Submitting MDDR**

First, ensure client meets one or more of the above criteria. A consult from a DSHS-recognized medical consultant is highly recommended and is required once drug-resistant TB is confirmed.

1. Contact the DSHS State Lab via phone or email.
   a. Main point of contact: Denise Dunbar
      Email: denise.dunbar@dshs.texas.gov
      Phone: (512) 776-7342
   b. Secondary point of contact: Benjamin Alpers
      Email: Benjamin.Alpers@dshs.texas.gov
      Phone: (512) 776-2699
2. If indication is “Other situations considered on a case by case basis,” ensure there is written consult from a DSHS recognized medical consultant.

3. Ensure there is a plan in place for medical consultation for any patient with drug resistance.

**NOTE:** If the above indications are not met, then the state laboratory must notify the requestor to obtain a written consult from a DSHS recognized medical consultant prior to submitting request for MDDR.
Appendix H: DSHS TB Formulary

The following medications and supplies are available to TB programs approved by the TB and Hansen’s Disease Branch, for outpatient TB management. All orders must be placed through ITEAMS, or by contacting the Pharmacy Branch at (512) 776-7500.

This list was developed by the TB and Pharmacy Branches. Other anti-TB medications may be available for outpatient use. First, contact the DSHS Pharmacy. If the drug is not available, you may request changes or additions of other anti-TB medications by emailing TBEpiEvaluation@dshs.texas.gov.

<table>
<thead>
<tr>
<th>Drug (Name Brand)</th>
<th>Item Description</th>
<th>Route</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amikacin</td>
<td>Vial</td>
<td>IM, IV</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Bedaquiline (Situro)</td>
<td>Capsule (Cap)</td>
<td>PO</td>
<td>See Section VI; Requires consult*</td>
</tr>
<tr>
<td>Clofazimine</td>
<td>--</td>
<td>--</td>
<td>Not Available in ITEAMS; See Section VI</td>
</tr>
<tr>
<td>Cycloserine (Seromycin)</td>
<td>Cap</td>
<td>PO</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Ethambutol (Myambutol)</td>
<td>Tablet (Tab)</td>
<td>PO</td>
<td>First Line</td>
</tr>
<tr>
<td>Ethionamide (Trecator)</td>
<td>Tab</td>
<td>PO</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Isoniazid</td>
<td>Solution (Soln)/Tab/Vial</td>
<td>PO, IM</td>
<td>First Line</td>
</tr>
<tr>
<td>Levofloxacin (Levaquin)</td>
<td>Soln/Tab/Vial</td>
<td>PO, IV</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Linezolid (Zyvox)</td>
<td>Suspension (Susp)/Vial</td>
<td>PO, IV</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Moxifloxacin (Avelox)</td>
<td>Tab/Vial</td>
<td>PO, IV</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Para-amino salicylic acid (Paser)</td>
<td>Packet</td>
<td>PO</td>
<td>Requires consult*</td>
</tr>
<tr>
<td>Pyrazinamide</td>
<td>Tab</td>
<td>PO</td>
<td>First Line</td>
</tr>
<tr>
<td>Pyridoxine (Vitamin B-6)</td>
<td>Tab</td>
<td>PO</td>
<td>First Line</td>
</tr>
<tr>
<td>Rifabutin (Mycobutin)</td>
<td>Cap</td>
<td>PO</td>
<td>First Line</td>
</tr>
<tr>
<td>Drug (Name Brand)</td>
<td>Item Description</td>
<td>Route</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Rifampin</td>
<td>Cap/Vial</td>
<td>PO, IV</td>
<td>First Line</td>
</tr>
<tr>
<td>Rifapentine (Priftin)</td>
<td>Tab</td>
<td>PO</td>
<td>First Line</td>
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Other Supplies

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<thead>
<tr>
<th>Item Description</th>
<th>Route</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Sterile Water for Injection</td>
<td>Vial</td>
<td>IM, IV</td>
</tr>
<tr>
<td>Hypertonic saline (3%)</td>
<td>Vial</td>
<td>Nebulized</td>
</tr>
<tr>
<td>Lidocaine (Xylocaine) 1% or 2%</td>
<td>Vial</td>
<td>IM, IV</td>
</tr>
<tr>
<td>Pregnancy Tests</td>
<td>Test</td>
<td>NA</td>
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<tr>
<td>Simple Syrup (Cherry flavor)</td>
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<td>PO</td>
</tr>
<tr>
<td>X-ray envelopes</td>
<td>Each</td>
<td>NA</td>
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<tr>
<td>Syringes (1/2”, 27 gauge)</td>
<td>Syringe</td>
<td>NA</td>
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<td>Tuberculin Skin Test</td>
<td>Vial</td>
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<tr>
<td>Amber RX bottles</td>
<td>Vial</td>
<td>NA</td>
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</table>

Auxiliary Medications

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<tr>
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<th>Route</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Azithromycin (Zithromax)</td>
<td>Susp/tab/vial</td>
<td>PO/IV</td>
</tr>
<tr>
<td>Ondansetron</td>
<td>Tab, ODT (orally dissolving tablet)</td>
<td>PO</td>
</tr>
<tr>
<td>Promethazine</td>
<td>Tab</td>
<td>PO</td>
</tr>
<tr>
<td>Prednisone</td>
<td>Tab</td>
<td>PO</td>
</tr>
<tr>
<td>Lidocaine/Prilocaine 2.5% cream</td>
<td>Cream</td>
<td>External</td>
</tr>
</tbody>
</table>

*See DSHS SDOs for medical consultation requirements*
Appendix I: Auxiliary Medications for TB Treatment

When providers request medications to support individualized patient care beyond anti-TB medications, as listed in the auxiliary medication section of the TB formulary, the following options exist:

1. **The TB provider may write a prescription.**
   - The licensed prescriber may write a prescription for the medication, and the client may fill that prescription at their own expense.

2. **The managing TB Program can coordinate with the patient’s medical home.**
   - TB Programs may work with the patient to develop a medical home and collaborate with the treating clinician there to prescribe the medication needed.
     - For example, a TB program could seek written permission from the patient (using the L-30 or equivalent) to coordinate the order of ondansetron from the patient’s primary care provider, and the patient could use their insurance to cover the cost.
     - For uninsured patients, TB programs may provide a list of low-cost pharmacies or refer patients to Federally Qualified Health Centers (FQHCs) or Community Health Clinics to ensure patient has a medical home outside of the TB program.

3. **The provider may consider over-the-counter medications, if applicable.**
   - Providers can consider over-the-counter medications with generic brands that the patient may purchase at their own expense.

4. **The managing TB Program may request the medication via the pharmacy, when the above options have been exhausted.**
   - If a patient has an extreme medical need requiring another drug to support their tuberculosis management (e.g., a patient with MDR/XDR-TB who is discharged from TCID and needs an anti-emetic for vomiting; a patient with TB meningitis needing corticosteroids), ensure the following are included in the patient’s medical record:

   - **DSHS form TB-400B (or equivalent):** overview of case information.
   - Plus, at least one of the following:
Provider’s/prescriber’s note: progress note or email from the prescriber indicating the medical necessity for the medication with dosage and expected duration.

Medical Consult: copy of a DSHS-recognized TB medical consultant’s recommendation of the supportive medication with anticipated duration.

TCID consult or discharge summary: If patient was receiving care at TCID, a discharge summary or note indicating the medications needed and expected duration of the need.

Contact the DSHS pharmacy directly to arrange the order: 512-776-7500. For questions regarding this process contact the TB and Hansen’s Disease Branch at 512-533-3144 or 512-533-3000. The TB and Hansen’s Disease Branch will inform all stakeholders if these phone numbers change when the office moves to another location.
Appendix J: Sample Tuberculosis Infection Control Plan

Purpose
According to the Centers for Disease Control and Prevention (CDC), people who work or receive care in healthcare settings, are at higher risk for becoming infected with Mycobacterium tuberculosis (M. tuberculosis). Therefore, it is necessary to have a tuberculosis (TB) infection control plan as part of a general infection control program to ensure:

- prompt detection of TB;
- airborne precautions; and
- treatment of persons suspected or confirmed to have TB disease.

To ensure the safety of the work environment, the following TB infection control plan should be implemented.

General Outline
The TB infection control plan ICP is based on three (3) levels of control, listed by levels of hierarchy:

- Administrative controls which reduce the risk of exposure to persons with infectious TB;
- Environmental controls which prevent spread and reduce the concentration of infectious droplet nuclei; and
- Respiratory protection or the use of personal protective equipment

Responsibility
The person responsible for the implementation and maintenance of the TB infection control plan is.

Administrative Controls
A written copy of the TB infection control plan is located ______________ and is available for inspection during regular business hours. Access is also possible at:

A. This facility is classified as a medium risk facility. The TB risk assessment is conducted annually.
B. TB prevention education and training is provided to staff, contractors, and interns upon hire. Training topics include:
1. Mode of TB transmission:
2. TB sign and symptoms;
3. TB risk factors;
4. TB disease vs. TB infection;
5. Disinfection practices for equipment and exam rooms; and
6. Proper use of environmental and respiratory controls.

C. The facility provides TB screening or requests proof of TB clearance prior upon employment. TB screening is provided annually.

D. Clients with suspected or confirmed TB disease are separated from other clients. A surgical mask is placed on the client if an airborne infection isolation (AII) room is not available.

E. Posters and signs are used throughout the facility to remind patients, visitors, and staff of proper cough etiquette.

F. Initial and ongoing TB education is provided to persons receiving TB prevention and care services.

Environmental Controls

This facility utilizes the following method(s) of environmental control:

☐ General Ventilation

- _____________ is responsible for implementing schedule of preventive maintenance in accordance with manufacturer’s instructions.
- The current log is located ________________.
- Historic records are filed in ________________.

☐ Local Exhaust Ventilation

- ________________ is responsible for implementing schedule of preventive maintenance in accordance with manufacturer’s instructions.
- The current log is located ________________.
- Historic records are filed in ________________.

☐ AII R (location):

- AII rooms meet CDC criteria.
- Negative pressure is monitored daily by ________________. The method of monitoring is ☐ smoke test, ☐ tissue test, or ☐ other visual check.
- Negative pressure checks are documented using the ______ log. The current log is located ________________.
• Historic records are filed in ____________________.

☐ High-Efficiency Particulate Air (HEPA) Filters (location):

• ____________ is responsible for implementing schedule of preventive maintenance in accordance with manufacturer’s instructions.
• The current log is located _______________. Historic records are filed in ________________.

☐ Ultraviolet Germicidal Irradiation (location):

• ______________ is responsible for implementing schedule of preventive maintenance in accordance with manufacturer’s instructions.
• The current log is located ______________.
• Historic records are filed in ________________.

Respiratory Protection Program
The facility’s respirator protection program is in accordance with Occupational Safety and Health Administration (OSHA) Respiratory Protection Standard 29CFR 1910.134.

A. In this facility, the following brand/model of N-95 respirator is used to protect staff:
B. Respirators are purchased by:
C. Initial fit testing is provided to employees who work in assignments that may require use of an N-95 respirator.
D. Prior to fit-testing, a medical evaluation is conducted to determine the employee’s ability to wear a respirator.
E. Fit-testing is repeated annually and whenever a different respirator is used.
F. A medical re-evaluation is obtained if an employee reports medical signs or symptoms that are related to the ability to use a respirator or if observations during fit-testing indicate a need for a medical evaluation.
G. If a staff person’s weight changes significantly, or if facial/dental alterations occur within a year, the staff person will request that a fit test be repeated to ensure adequate respirator fit.
H. The use of N-95 respirators is prohibited for any staff member who has facial hair that comes between the sealing surface of the face piece and the face of the wearer, because it is impossible to get a sufficient
seal.
I. In this facility, staff with the following duty assignments require respirator fit testing:
   1. all persons entering rooms in which clients with suspected or confirmed TB disease are being isolated;
   2. persons present during cough-inducing or aerosol-generation procedures with clients with suspected or confirmed TB disease;
   3. persons who transport clients with suspected or confirmed TB disease;
   4. persons who conduct maintenance on environmental control equipment; and
   5. others based upon risk for TB exposure.
J. A current list of staff who have been fit-tested—along with the date of fit-testing, manufacturer, model number, and size of the respirator that was fit-tested— is located ____________________.
K. A fit test qualifies the staff person to wear only the specific make, model, and size respirator for which an acceptable fit test result was achieved.
L. Staff wearing a respirator do a “seal check” of the respirator each time the respirator is used, in accordance with manufacturer’s recommendations.
Texas Tuberculosis Work Plan

TB Infection Control Plan

Date Created:

Approved by:

______________________________  ______________________________
Director/Deputy Director        Date

______________________________  ______________________________
Medial Director                 Date

______________________________  ______________________________
TB Program Manager              Date

Date of Reviewed:
By:____________________________

Date of Reviewed:
By:____________________________

Date of Reviewed:
By:____________________________
Appendix K: TB Training and Education Resources

Designated staff using and signing the DSHS TB Standing Delegation Orders (SDOs) or local equivalent must have training and competency in TB care. TB Nursing staff must complete 40 hours of initial training and education with 90 days of hire, followed by 16 hours of continuing education and training each calendar year.

<table>
<thead>
<tr>
<th>Training</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB Core Curriculum</td>
<td><a href="https://www.cdc.gov/tb/education/corecurr/">https://www.cdc.gov/tb/education/corecurr/</a></td>
</tr>
<tr>
<td>CDC TB Self-Study Modules (1-9)</td>
<td><a href="http://www.cdc.gov/tb/education/ssmodules/">http://www.cdc.gov/tb/education/ssmodules/</a></td>
</tr>
<tr>
<td>DSHS TB New Staff Orientation (after 90 days of hire)</td>
<td><a href="http://www.texastb.org">www.texastb.org</a></td>
</tr>
<tr>
<td>Heartland TB Nurse Case Management</td>
<td><a href="http://www.heartlandntbc.org/training/course_descriptions.php">http://www.heartlandntbc.org/training/course_descriptions.php</a></td>
</tr>
<tr>
<td>Heartland Pediatric TB Intensive</td>
<td><a href="http://www.heartlandntbc.org/training/course_descriptions.php">http://www.heartlandntbc.org/training/course_descriptions.php</a></td>
</tr>
<tr>
<td>Heartland TB Contact Investigation</td>
<td><a href="http://www.heartlandntbc.org/training/course_descriptions.php">http://www.heartlandntbc.org/training/course_descriptions.php</a></td>
</tr>
<tr>
<td>TST Competency Check-List (TB-905)</td>
<td><a href="http://www.dshs.texas.gov/idcu/disease/tb/forms/">http://www.dshs.texas.gov/idcu/disease/tb/forms/</a></td>
</tr>
<tr>
<td>Training</td>
<td>Reference</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| Annual continuing education and training | Education and training as required by CD or TB manager (or designee). May include:  
  - LHD annual training (e.g., blood borne pathogens); may vary  
  - Continuing education required for certification/professional license renewal; may vary  
  - Annual review of SDOs, TB Work Plan, or other guidance documents; maintain training rosters  
  - DSHS webinars (e.g., Research Rounds, TB Brown Bag sessions); maintain training rosters  
  - Skills training (e.g., phlebotomy, TST, sputum collection)  
  - Local case study review  
  - Conference attendance (e.g., National TB Controller’s Association [NTCA], Texas Public Health Association) |
Appendix L: Sample In-service and Training Roster

Topic:

Trainer/Educator:

Date: Location:

Number of Hours:

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Signature</th>
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</table>
**Appendix M:** Sample Stakeholder Training/Education Roster

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<td>Group Type:</td>
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<td>Format:</td>
<td>Number of Hours:</td>
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<td>Print Name</td>
<td>Signature</td>
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<table>
<thead>
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### Appendix N: Case Detection, Accuracy, Completeness, Timeliness, Security and Confidentiality (DACTS) Audit Tool

**DACTS Audit Tool for State-Designated Case Registries (Draft)**

<table>
<thead>
<tr>
<th>Number 1</th>
<th>Training Requirements</th>
<th>Yes</th>
<th>No</th>
<th>If no, plan for improvement</th>
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<tbody>
<tr>
<td>1.1</td>
<td>Have all members of TB Case Registry team completed their training?</td>
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</tr>
<tr>
<td></td>
<td>• How many members? _______</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• How many completed? _______</td>
<td></td>
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<tr>
<td></td>
<td>• How many did not complete? _______</td>
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<td>1.2</td>
<td>Basic TB Facts</td>
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<td>1.3</td>
<td>Core Curriculum on Tuberculosis, Sixth Edition 2013</td>
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<tr>
<td>1.4</td>
<td>Diagnostic Standards/Classification of TB in Adults and Children; AM J Respir Crit Care Med 2000; 161</td>
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<td>1.5</td>
<td>Guidelines for the Investigation of Contacts of Persons with Infectious Disease; MMWR 2005, 54 (No RR-15, 1-37)</td>
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<td>1.6</td>
<td>Aggregate Reports for TB Program Evaluation, Training Manual and Users Guide</td>
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<td>1.7</td>
<td>RVCT Instructions Manual</td>
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<td>1.8</td>
<td>A Guide and Toolkit for QA for TB Surveillance Data</td>
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</table>
| 1.9 | TB101 for Health Care Workers  
| 1.10 | Central Office Orientation |
| 1.11 | Annual Workshop |
| 1.12 | Monthly TB Surveillance Conference Calls |
| 1.13 | TBNN Workgroup |

**Number 2 System Access Requirements**

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<tr>
<th>2.1</th>
<th>Do all team members have access to the necessary systems to perform their surveillance duties?</th>
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<tbody>
<tr>
<td>2.2</td>
<td>PHIN – Public Health Information Network</td>
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<tr>
<td>2.3</td>
<td>Access to state and federal training websites</td>
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<td>2.4</td>
<td>THISIS</td>
</tr>
<tr>
<td>2.5</td>
<td>PHLIMS/Labware – Public Health Laboratory Information Management System</td>
</tr>
<tr>
<td>2.6</td>
<td>NTIP – National TB Indicators Project System</td>
</tr>
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<td>2.7</td>
<td>NTSS – National Telecommunications Surveillance System</td>
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<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>If no, plan for improvement</th>
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<td>3.1</td>
<td>Case Detection</td>
<td></td>
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<tr>
<td>3.2</td>
<td>Data Accuracy</td>
<td></td>
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<tr>
<td>3.3</td>
<td>Data Completeness</td>
<td></td>
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<tr>
<td>3.4</td>
<td>Data Timeliness</td>
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<td></td>
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<tr>
<td>3.5</td>
<td>Data Security and Confidentiality</td>
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<tr>
<td>3.6</td>
<td>Plan for Improvement</td>
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</table>

<table>
<thead>
<tr>
<th>Number 4</th>
<th>Case Detection Requirements</th>
<th>Yes</th>
<th>No</th>
<th>If no, plan for improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Maintain a Registry of TB Records:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cases-contacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Suspects-contacts</td>
<td></td>
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<tr>
<td></td>
<td>LTBI’s referred or targeted testing</td>
<td></td>
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<tr>
<td>4.1a</td>
<td>Records Inventory</td>
<td></td>
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<tr>
<td>4.2</td>
<td>Established liaisons with appropriate reporting sources to enhance quality assurance of TB surveillance data.</td>
<td></td>
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<tr>
<td>4.3</td>
<td>Developed and implemented active case detection activities.</td>
<td></td>
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</tr>
<tr>
<td>4.4</td>
<td>Evaluated the completeness of reporting of TB cases to the surveillance system.</td>
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</tbody>
</table>

**Number 5  Data Accuracy Requirements**

<table>
<thead>
<tr>
<th>5.1</th>
<th>Evaluated accuracy or validity of RVCT data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2</td>
<td>Assessed knowledge, skills, and abilities of staff and provided training if needed.</td>
</tr>
<tr>
<td>5.3</td>
<td>Provides training on Data Entry Standards.</td>
</tr>
<tr>
<td>5.3a</td>
<td>Adheres to Data Stamping policy.</td>
</tr>
<tr>
<td>5.2b</td>
<td>Adheres to complete record search.</td>
</tr>
</tbody>
</table>

**Number 6  Data Completeness Requirements**

| 6.1  | Maintains Completeness of all RVCT variables. |
| 6.2 | Matches TB and HIV Case Registries |
| 6.3 | Evaluates programmatic performance by using TB surveillance data, at least annually. |

**Number 7  Data Timeliness Requirements**

| 7.1 | Reports all newly diagnosed cases of TB to central office according to schedule |
| 7.1a | Cases |
| 7.1b | Suspects |
| 7.1c | Contacts |
| 7.1d | IJNs |
| 7.1e | LTBIs |
| 7.2 | Submits complete RVCT reports to central office according to schedule |
| 7.3 | Analyzes TB surveillance data at least quarterly. |
| 7.4 | Evaluates programmatic performance by using TB surveillance data at least annually. |

**Number 8  Security and Confidentiality Requirements**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>If no, plan for improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>List of the minimum standards required for data sharing and use of surveillance data for public health action.</td>
<td></td>
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</tr>
<tr>
<td>8.2</td>
<td>Guidelines on how to initially assess the TB program’s data security and confidentiality policies and procedures.</td>
<td></td>
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</tr>
<tr>
<td>8.3</td>
<td>Checklist for conducting ongoing assessment of TB program compliance with the data security and confidentiality guidelines.</td>
<td></td>
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</tr>
<tr>
<td>8.4</td>
<td>Questions and Answers to clarify issues regarding the Data Security and Confidentiality Guidelines.</td>
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</tr>
<tr>
<td>8.4a</td>
<td>Guidelines filed with Surveillance Procedures Manual</td>
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<tr>
<td>8.4b</td>
<td>Records in locked cabinet, in locked room.</td>
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<tr>
<td>8.4c</td>
<td>Fax machine and copier in locked room.</td>
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<tr>
<td>8.4d</td>
<td>Use only iron key flash drives for storing working files containing data.</td>
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<tr>
<td>Number</td>
<td>Description</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
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<tr>
<td>8.4e</td>
<td>Data files have a back-up system.</td>
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</tr>
<tr>
<td><strong>Number 9</strong></td>
<td>Maintains log for TB employees and other entities and dates of training and presentations.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9.a</td>
<td>Log for TB employees</td>
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<tr>
<td>9.aa</td>
<td>Date, name of employee, jurisdiction or clinic, name of training</td>
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<tr>
<td>9.b</td>
<td>Log for other entities</td>
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</tr>
<tr>
<td>9.bb</td>
<td>Date, employee, entity, name of training, number participated</td>
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<tr>
<td><strong>Number 10</strong></td>
<td>Maintains personal folder of training materials in common or shared drive.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>10.a</td>
<td>Slide Presentations from conferences and workshops</td>
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<tr>
<td></td>
<td>Activity</td>
<td></td>
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<td>10.b</td>
<td>World TB Day Presentations</td>
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<td>10.c</td>
<td>TB Surveillance Brown Bag Presentations</td>
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<tr>
<td>10.d</td>
<td>What is TB, Questions and Answers Test</td>
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<tr>
<td>10.e</td>
<td>THISIS Instructions and Updates</td>
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<tr>
<td>10.f</td>
<td>Other Training Documents</td>
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</tbody>
</table>