Public Health Actions for Tuberculosis Care Guide: IHSC-Staffed Medical Clinics

August 2020

ICE

ICE Health Service Corps

FOREWORD

This U.S. Immigration and Customs Enforcement (ICE) Health Service Corps (IHSC) 05-11 G-01 *Public Health Actions for Tuberculosis (TB) Care Guide: IHSC-Staffed Medical Clinics* supplements IHSC Directive 05-11 (ERO 11786.1), *Public Health Actions for Tuberculosis Care*.

This guide explains concepts, assigns responsibilities, and details procedures for public health actions for tuberculosis prevention and care. The guide applies to all IHSC-staffed medical clinic personnel.

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I. Overview

This document provides official guidance on public health actions for tuberculosis (TB) care, and supplements other resources for clinical management guidance.

II. Intake TB Screening

Health staff must screen all newly arriving detainees and residents for symptoms suggestive of TB within 12 hours of arrival and in accordance with the Centers for Disease Control and Prevention (CDC) TB guidelines by topic.

Health staff must implement TB screening for adult detainees at detention and staging facilities with IHSC medical staffing. IHSC staff conduct TB screening in accordance with the detention standard that governs the facility.

Health staff must conduct TB screening for family residential facilities with IHSC medical staffing in accordance with the most current Family Residential Standards.

A. Symptom Screening for Pulmonary TB

Health staff must screen all detainees for symptoms consistent with TB disease within 12 hours of arrival to facilities with IHSC medical staffing, regardless of anticipated duration of stay. TB symptom screening includes assessment of the following:

- Cough of two weeks duration or longer.
- Chest pain.
- Hemoptysis (bloody cough).
- Unexplained weight loss.
- Night sweats.
- Fever.
- Loss of appetite.

B. Evaluation of Persons with High Risk Conditions for TB

A medical provider must evaluate detainees at elevated risk for TB for atypical clinical presentation within 72 hours of identification; elevated risk includes, but is not limited to the following characteristics:

- Known history of tuberculosis disease.
- HIV.
- Known close contact to a person with TB disease.
- Diabetes mellitus.

- Injection or non-injection illegal drug use.
- Alcohol abuse.
- Other immunosuppressed state (e.g., lymphoma, on chronic steroid therapy).

C. Persons in Continuous Law Enforcement Custody with Recent TB Test Results

For adult detainees in continuous law enforcement custody with no symptoms of pulmonary TB, health staff may accept documented negative TB testing results within one year of arrival in lieu of an intake TB test.

For adult detainees in continuous law enforcement custody with negative TB test results dated longer than one year prior to arrival, health care personnel must perform annual TB evaluation in accordance with this guide.

For all detainees in continuous law enforcement custody, IHSC may accept TB symptom screening and documented negative TB testing results within one year of arrival as intake TB screening. Acceptable TB test documentation from previous facilities includes: tuberculin skin test (TST) results in millimeters (mm) documented by a registered nurse (RN), nurse practitioner, physician assistant, or physician; chest x-ray (CXR) findings; and laboratory results of sputa for acid fast bacilli (AFB) smear microscopy, cultures, and/or nucleic acid amplification test (NAAT).

D. Considerations for TB Screening of Persons Expected to be in the Facility for Less than 72 Hours

Health staff must conduct pulmonary TB symptom screening for all newly arriving detainees within 12 hours of arrival. Health staff must evaluate detainees with symptoms suggestive of pulmonary TB disease, including appropriate testing for TB infection and active disease. Appropriate testing includes TST or Interferon Gamma Release Assay (IGRA). Annual TB Evaluation for Detainees in Continuous Law Enforcement Custody.

Health staff should evaluate detainees in continuous law enforcement custody for symptoms consistent with TB within one year of the previously documented TB evaluation. CDC does not recommend routine annual CXR.

In HIV positive detainees, health staff must perform a TST or an IGRA annually to exclude recent TB infection.

Evaluate detainees with known recent exposure to contagious TB in accordance with CDC TB guidelines for contact investigations.

E. TB Testing in Facilities with Radiography On-Site

In facilities with on-site CXR capabilities, adult detainees should have a single view, posteroanterior (PA), CXR completed as soon as possible, but no later than 72 hours. Health staff must place detainees with symptoms suggestive of active pulmonary TB in an airborne infection isolation (AII) room promptly.

Health staff who perform CXRs should administer CXRs in a manner that is consistent with the scope of their clinical license. The state that issued the license, and the state in which the health staff perform the service, outlines the clinician's scope.

Health staff should obtain a two view CXR (PA and lateral) as an additional verifier for any single view CXR with an abnormal impression consistent with suspected TB disease ("positive"). Staff should take the two view CXR as soon as possible, but no later than 72 hours, of the initial abnormal single view CXR result. Staff may obtain the CXR on-site or off site, depending on the availability of appropriately licensed personnel to perform this function. When screening using a CXR, health staff should follow the most current IHSC TB Checklist and Clinical Guideline.

Health staff should inform female detainees of their pregnancy test (urine hCG) result and counsel female detainees with a positive pregnancy test prior to the CXR. Health staff must inform female detainees with a positive pregnancy test that fetal radiation exposure during an x-ray is negligible and clinically insignificant, particularly if appropriately shielded. Health staff should offer pregnant female detainees the choice of TB testing via TST, IGRA or CXR. Health staff must order, or refer for a CXR, if the detainee selects a TST or IGRA and the reading indicates infection, or if symptoms suggestive of TB disease are present.

F. TB Testing without Radiography On-Site

Health staff must promptly refer detainees with symptoms suggestive of active, pulmonary TB for a CXR if the facility does not have on-site radiography capabilities and there is no prior documented positive test for TB infection. If same day referral is not possible, health staff must place detainees with symptoms suggestive of pulmonary TB disease in an AII room until transportation becomes available for an off-site CXR.

For detainees without symptoms suggestive of active pulmonary TB, health care staff must administer a TST or blood draw for an FDA-approved IGRA within 72 hours of arrival. Health staff must read TSTs within 48–72 hours. Affected detainees may remain in general population during this period. For routine testing, it is acceptable to use IGRAs in place of, but not in addition to TSTs, with some special considerations as stated in the CDC TB guidelines for testing and diagnosis.

If the TST or IGRA result is newly positive, health staff must obtain a CXR to assess for possible TB disease preferably within 72 hours, but not to exceed 7 days after receiving the positive TST or IGRA result. A medical provider should consider ordering a two-view, PA, and lateral CXR when referring detainees for an off-site CXR. Off-site CXR conducted for screening purposes do not require urgent transport to an emergency department.

Health staff must refer detainees who have reliable documentation of a positive TST or IGRA, and a prior negative CXR, to a clinician for evaluation and assessment of TB status. Annual CXRs are not necessary or recommended for detainees with previous negative CXRs, unless there are signs or symptoms of active TB disease or the detainee has a significant underlying risk factor (e.g., HIV).

It is not necessary to house detainees separately from the general population unless there is clinical or radiographic (x-ray) evidence suggestive of contagious, pulmonary TB disease.

For family residential facilities, refer to the section of this guide, *TB Screening in Detainees and Residents <18 Years of Age.*

G. TB Screening in HIV Positive Individuals

A medical provider must order a CXR for all known HIV positive detainees as part of their intake screening. HIV-related TB disease may present differently than in HIV negative individuals; the differences may be subtle. Health staff must perform a TST or an IGRA on HIV positive detainees annually to exclude TB infection during their physical examination or chronic care appointment. Health staff should perform a CXR for annual screening if the detainee has a baseline positive TST and/or IGRA.

H. TB Screening in Detainees and Residents <18 Years of Age

Health care staff must evaluate residents <18 years of age for symptoms consistent with pediatric presentations of TB disease. Health care staff should also assess them for a history of close contact to a person who had known TB disease. The most common form of TB disease occurs in the lungs, but TB disease can affect other parts of the body as well. Symptoms of TB disease in other parts of the body depend on the area affected. Infants, young children and immunocompromised children (e.g., children with HIV) are at the highest risk of developing the most severe forms of TB such as TB meningitis or disseminated TB disease. Signs and symptoms of TB disease in children include the following:

- Cough;
- Feelings of sickness or weakness, lethargy, and/or reduced playfulness;
- Weight loss or failure to thrive;
- Fever; and/or
- Night sweats.

For residents in continuous law enforcement custody, health care staff may accept symptom screening plus documented TB screening within one year of arrival for intake screening purposes. Heath staff should test minors under 18 for TB using the following screening recommendations:

- *Minors accompanied by an adult identified with confirmed or suspected TB or other known exposure to a person with TB disease:* promptly administer a test for TB infection using the IGRA (preferred) or TST; and two view CXR using anteroposterior (AP) or PA, and lateral views.
- *Minors under two years of age with signs or symptoms suggestive of TB.* Promptly administer a test for TB infection (IGRA preferred, or TST) and CXR with two views (AP or PA, and lateral views).
- *Minors under two years of age who do not have signs and symptoms suggestive of TB and no known exposure to TB disease.* Further testing is not required, unless required by state law.
- *Minors 2–14 years of age, with no symptoms consistent with pulmonary TB, and with no known exposure to TB within 30 days of arrival.* Administer a test for TB infection (IGRA preferred, or TST). Conduct

screening using a CXR (AP or PA, and lateral views) if completing the test is not possible.

- *Minors 2–14 years of age with signs or symptoms consistent with pulmonary TB, and/or a positive test for TB infection.* Promptly administer a CXR with two views (AP or PA, and lateral views).

- *Minors 15–17 years of age: administer a CXR with two views (PA or PA and lateral views).* If a CXR cannot be accomplished promptly, then administer a test for TB infection (IGRA preferred, or TST).

Health staff should use the same test consistently for a target age group with minimal exceptions, and complete CXRs within 72 hours when applicable.

Health care staff who perform CXRs must have appropriate licensure and verified competency in age-appropriate technical specifications when performing CXRs on residents. See American College of Radiology (ACR), Society for Pediatric Radiology (SPR), and Society for Thoracic Radiology (STR) Practice Parameter for the Performance of Chest Radiography; and ACR-SPR-STR Practice Parameter for the Performance of Portable (Mobile Unit) Chest Radiography.

I. Refusal of TB Screening

Health staff should offer screening using TST or an FDA-approved IGRA if a detainee refuses a CXR.

A medical provider must order detainee placement into an airborne infection isolation room for 14-30 days if: the detainee refuses all methods of TB screening and testing; and presents with signs or symptoms suggestive of pulmonary TB. Health staff should provide daily education, offer TB screening daily, and observe and assess the detainee for changes in signs and symptoms. If a detainee with clinical signs or symptoms continues to refuse TB screening for longer than 14-30 days, the medical provider must consult with the clinical director or regional clinical director for guidance regarding continued isolation.

Health staff must recommend single cell housing for a detainee for 14-30 days if: the detainee refuses all methods of TB screening and testing, including verbal symptoms screen; and presents without signs suggestive of pulmonary TB. Health staff should provide daily education, offer TB testing daily, and observe and assess for onset of clinical signs or symptoms. Health staff should not recommend airborne infection isolation for detainees who are asymptomatic for pulmonary TB.

Health staff may clear detainees who refuse TB screening for longer than 14-30 days and remain symptom-free for pulmonary TB during this timeframe. Health staff may release these detainees into general population and clear them for transfer, release, or removal.

J. Tuberculin Skin Test (TST) Interpretation

See CDC resources on TB screening with a TST, including:

- Mantoux Tuberculin Skin Testing products, guides, & toolkits; and
- Chapter 3, Testing for Tuberculosis Infection and Disease, from Core Curriculum on Tuberculosis: What the Clinician Should Know.

During screening, health staff must interpret a TST reading of greater than or equal to 10 mm of induration as a positive result when the detainee has no known risk factors for TB or other contraindicating medical factors. Health staff should read the TST reaction 48-72 hours after application by measuring the induration (not erythema) on the horizontal axis, then document results in number of mm (even if 0 mm).

For testing during contact investigations, health staff should refer to the CDC TB guidelines for contact investigations.

Health staff should consider a TST reaction of greater than or equal to 5mm of induration as positive in the following circumstances:

- HIV-infected detainees.
- Recent contacts of a detainee with infectious TB disease.
- Detainees with fibrotic changes in chest radiograph consistent with prior TB.
- Organ transplant recipients.
- Detainees who are immunosuppressed for other reasons (e.g., taking equivalent of greater than or equal to 15 mg/day of prednisone for 1 month).

Health staff should consider a TST reaction of greater than or equal to 10 mm induration as positive in:

- Recent immigrants (within the last 5 years) from countries where TB has a high prevalence.
- Injection illegal drug users.
- Residents or employees of high-risk congregate settings (e.g., prisons, jails, long-term care facilities for the elderly, health-care facilities, residential facilities for patients with HIV, and homeless shelters).
- Persons with clinical conditions not previously mentioned.
- Persons younger than 4 years of age.
- Persons younger than 18 years of age exposed to an adult at high risk for TB disease.

K. Interferon Gamma Release Assay (IGRA)

IGRAs test for TB infection; IGRAs do not identify TB disease. Health staff may use FDA-approved IGRAs for detection of TB infection in accordance with CDC guidelines and manufacturer instructions, considering the availability of laboratory resources and specific training requirements to perform testing according to specifications. For routine testing, health staff may use IGRAs in place of, but not in addition to TSTs, with some special considerations as stated in the CDC guidelines. Health staff should refer to CDC 2010 Guidelines for using IGRAs to Detect M.TB infection and CDC Core Curriculum on Tuberculosis: What the Clinician Should Know, Chapter 3: Testing for Tuberculosis Infection and Disease.

L. Detainees with Symptoms or Abnormal CXR Results

Health care staff must refer detainees with any symptom suggestive of TB disease, or abnormal CXR suggestive of pulmonary TB disease, to a medical provider for medical consultation. If a medical provider is not on duty during intake screening, health staff must place the detainee with suspected TB to an AII room until medical provider evaluation. If no AII room is available on-site, health staff must refer the detainee to the nearest tertiary care facility for isolation and evaluation, in consultation with the IHSC clinical director, staff physician, or designee.

Detainees with symptoms or abnormal CXR require airborne precautions. Health care staff should fit the detainee with a tight-fitting surgical mask (not an N-95 respirator) when not in an AII room, until a medical provider determines the detainee as noncontagious. Health care and facility staff must don appropriate personal protective equipment when in close contact with the detainee, and when interacting with detainees for brief periods outside of the AII room (e.g., telephone calls, movement, etc.).

Medical providers should manage detainees with presumptive or confirmed TB disease according to the most current IHSC Pulmonary Tuberculosis Suspect Medical Provider Guidance and CDC TB treatment guidelines.

M. Residents <18 Years of Age with a Positive TST, IGRA or CXR

- A medical provider must perform a directed physical examination for all children and adolescents with a positive TST, IGRA or CXR to assess for pulmonary or extrapulmonary TB disease or risks for TB-drug toxicity. See American Thoracic Society (ATS), Infectious Diseases Society of America (IDSA), and Centers for Disease Control and Prevention (CDC) Clinical Practice Guidelines: Diagnosis of Tuberculosis in Adults and Children; ATS, CDC, and IDSA Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis; and American Academy of Pediatrics Red Book®: 2018 Report of the Committee on Infectious Diseases.

- A medical provider should refer pediatric residents with suspected extrapulmonary or pulmonary TB disease to a specialist with expertise in childhood TB.

- A medical provider should consult with a pediatric TB expert for the treatment of pediatric residents with TB, as well as the management of infants, young children, and immunocompromised children with known exposure to someone with infectious TB disease.

- A medical provider should seek expert medical consultation as needed through the TB Centers of Excellence.

III. TB Disease Management

A. Diagnostic Testing

Health staff should refer to Appendix A for summary guidance on initial evaluation for suspected TB disease in adults, IHSC Pulmonary Tuberculosis Suspect Medical Provider Guidance, and CDC TB guidelines by topic.

B. TB Management

Medical providers should manage detainees with presumptive or confirmed TB disease according to the most current IHSC Pulmonary Tuberculosis Suspect Medical Provider Guidance and CDC TB treatment guidelines.

Directly Observed Therapy

Health staff should administer medications for suspected or confirmed TB disease using directly observed therapy (DOT). During DOT, a health care provider watches the detainee swallow each dose of anti-TB medication. Health staff must document each observation on a medication administration record that IHSC maintains as part of the health record.

Multidrug-Resistant (MDR) and Extensively Drug-Resistant (XDR) TB

MDR and XDR TB are resistant to both isoniazid and rifampin, the common drugs used to treat TB. A medical provider must manage MDR and XDR TB in consultation with the IHSC infectious disease consultant and the local or state health department and/or the TB Centers of Excellence.

C. TB Case Definition

See TB case definitions on the CDC National Notifiable Diseases Surveillance System website.

Clinical Description

A chronic bacterial infection caused by *Mycobacterium tuberculosis*, usually characterized pathologically by the formation of granulomas. The most common site of infection is the lung, but the bacteria may infect other organs.

Clinical Case Definition

A case must meet all the following clinical criteria. Medical providers should refer also to Appendix B.

1. A positive TST or positive IGRA for *Mycobacterium tuberculosis* (*M. tuberculosis*);

2. Other signs and symptoms compatible with TB (e.g., abnormal chest radiograph, abnormal chest computerized tomography scan or other chest imaging study, or clinical evidence of current disease);

3. Treatment with two or more anti-TB medications; and

4. A completed diagnostic evaluation.

Laboratory Criteria for Diagnosis

1. Isolation of *M. tuberculosis* from a clinical specimen; or

2. Demonstration of *M. tuberculosis* complex from a clinic specimen by nucleic acid amplification test; or

3. Demonstration of acid-fast bacilli in a clinical specimen when a culture is unobtainable, falsely negative, or contaminated.

Case Classification

A confirmed case either meets the clinical case definition or laboratory criteria for diagnosis. Health staff must document TB case classification after receipt of final culture results. Health staff should assess radiographic response to treatment if cultures are negative after a 6-8-week comparison chest x-ray (if the detainee remains in ICE custody).

IV. Considerations for Contagiousness

A. Airborne Precautions

A detainee with suspected or confirmed TB disease, or under evaluation for TB disease, requires airborne precautions. Health staff must fit the detainee with a tight-fitting surgical mask; the detainee must wear the mask until moved to an appropriate space. Health staff must immediately place these detainees in a functioning AII room that meets CDC requirements for environmental controls. See CDC TB guidelines for infection control and health care personnel.

The health services administrator (HSA) or designee must have a plan for referring detainees with suspected or confirmed TB to an appropriate facility with AII capabilities if AII rooms on-site are not available.

A medical provider determines when a detainee is noncontagious and released from airborne precautions. The medical provider bases this decision on a clinical assessment of contagiousness, in accordance with CDC guidelines and/or expert consultation. See Memorandum to Community Healthcare Providers | Identification and Treatment of Pulmonary Tuberculosis and Checklist on the PHSP Unit SharePoint Page for return to referring correctional facility for placement in general population following evaluation for suspected tuberculosis (TB).

Health staff should don a fit-tested, FDA-approved N95 respirator when entering an occupied AII room.

Additional Considerations for Family Residential Facilities

IHSC considers family members exposed when they live and travel with someone in their family who has active TB or suspected of having active TB. In family residential facilities, health staff may place parents in an AII room with a child requiring AII. Health staff may place children in an AII room with a parent requiring AII, if the room can accommodate cohabitation and the non-ill family member is not at high risk for complications.

B. Assessment of Contagiousness

TB is contagious and spreads to others by airborne droplets during sneezing, coughing, and contact with mucus from the respiratory tract. Individuals can get the disease by close contact with infected people. Contagiousness is associated with the number of *Mycobacterium tuberculosis* bacteria expelled in the air. Health staff should review the following information to assess contagiousness.

- Checklist for return to referring correctional facility for placement in general population following evaluation for suspected tuberculosis (TB).
- CDC TB guidelines for infection control and health care personnel.
- CDC TB guidelines for correctional facilities.
- Controlling Tuberculosis in the United States.

A medical provider should evaluate the contagiousness of detainees who have, or they are suspected of having, either pulmonary, laryngeal, or pleural TB disease. Medical staff should base their assessment on all the following characteristics:

- Respiratory tract disease with involvement of the lung, or airways including larynx; and
- Presence, frequency, and strength of cough; and
- Extent of cavitary pulmonary disease; and
- Sputa positive for AFB on smear microscopy; and
- Undergoing cough-inducing or aerosol-generating procedures (e.g., sputum induction, bronchoscopy, airway suction); and
- No receipt of anti-TB therapy just started therapy, poor compliance with therapy or poor clinical or bacteriologic response to therapy.

C. Criteria for Assessing Contagiousness and Response to Treatment for Placement in General Population

Detainees suspected of having TB disease must remain in an AII room until a medical provider excludes TB disease, renders an alternate diagnosis, or determines the detainee as noncontagious. Medical providers base their assessment on medical history, physical examination, CXR, bacteriology, and accordance with CDC guidelines.

Health staff must ensure that detainees believed or known to have drug susceptible TB remain in an AII room. Whether at a detention facility or in the hospital, health staff may not house these detainees in the general detention population. The detainee must meet specific criteria (see Appendix C) and deemed noncontagious by a medical provider before placement in general population. Health staff must review documentation and ensure detainees returning from a hospital meet all criteria, prior to placement in general population.

A medical provider must comply with the prescribed customized treatment regimen and treatment plan for discontinuing isolation if the detainee is suspected or confirmed to have MDR-TB disease. From a clinical standpoint, persons with MDR-TB are more difficult to treat. They are more likely to respond poorly to treatment and become contagious again. Detainees with, or suspected of having, MDR-TB must remain in an AII room while in the detention facility or while receiving effective anti-TB therapy at the hospital. Health staff may discontinue isolation only after a physician determines the detainee meets the criteria for placement in general population (see Appendix C).

Persons at increased risk of MDR-TB include the following:

- Known contact to an MDR-TB case.
- Current TB treatment with evidence of treatment failure.
- Prior incomplete or interrupted treatment for TB disease.
- Prior TB treatment since 1970. Except in cases where the individual relapsed after completing adequate directly observed therapy (DOT).
- Foreign birth in a country identified as having high rates of MDR TB in the most current World Health Organization Global Tuberculosis Report .

V. Management of TB Infection After TB disease Has Been Excluded

See *IHSC Latent TB Infection Clinical Guidelines*.

The TB bacteria can live in the body without making the individual sick. Health staff should consider treatment for TB infection using the following guiding principles:

- TB disease excluded by culture; and
- A clinical diagnosis of TB disease excluded (i.e., no clinical or radiographic improvement with empiric treatment for active TB disease); and
- The detainee has uncomplicated TB infection (e.g., not known to have recent exposure to MDR or XDR TB); and
- The detainee is at high risk for developing TB disease; and
- There is a reasonable likelihood of completing a course of treatment as directed.

Health staff should continue detainee treatment for TB infection if started prior to ICE custody.

For detainees with known recent exposure to MDR or XDR TB, health staff must seek expert consultation prior to initiating any treatment regimen.

VI. Surveillance and Reporting

The field healthcare program manager (FHPM), infection prevention officer (IPO), or designee if the facility does not have a FHPM or IPO, are responsible for TB reporting in the TB Case Management data collection system. Health staff should refer to 05-06-G-03, *Infectious Disease Public Health Actions Guide: Surveillance and Reporting* located in the IHSC Policy Library .

- Health staff must use structured data fields in the TB Case Management system. The data and resulting reports must reflect all information required by health departments for reporting a *Verified Case of Tuberculosis*. Health staff should document the initial TB case management record within one working day.

The FHPM, IPO, or designee must report all detainees with suspected or verified TB disease to local or state TB programs, in accordance with local and state regulations. Most states require reporting within one working day after meeting criteria. Refer also to 05-06 G-03, *Infectious Disease Public Health Actions Guide: Surveillance and Reporting*.

The FHPM, IPO, or designee should utilize medical holds as a tool to communicate the need for a requested action for medical or public health reasons. Actions can include but are not limited to: movement restrictions while the detainee is contagious and until the transnational referral process is complete; and notification prior to transfer, release, or removal. Refer to IHSC Directive 05-06, *Infectious Disease Public Health Actions*, and 05-06 G-02, *Infectious Disease Public Health Actions Guide: Isolation and Management of Detainees Exposed to Infectious Organisms*.

VII. Release Planning and Continuity of Care

Health staff should facilitate domestic or transnational referrals to ensure continuity of care for all detainees with confirmed or suspected TB disease on anti-TB therapy.

A. Collaboration with Public Health Authorities

The FHPM, IPO, or designee should collaborate with local or state health departments on public health actions for TB care. The collaboration includes planning for any outcome resulting from immigration proceedings. Outcomes may include release or removal from ICE custody.

B. Transnational Referrals

Transnational referrals ensure continuity of care and anti-TB therapy for the detainee. Without transnational referrals, TB patients are more likely to interrupt or stop treatment, become contagious and infect others, acquire drug resistance, have undetected medical complications, and die from TB disease.

The FHPM, IPO, or designee should facilitate transnational referrals for detainees with suspected or confirmed TB disease requiring anti-TB therapy through the CDC CureTB Program (Appendix D).

C. Coordinated Removals and International Notifications

The FHPM, IPO, designee, or medical provider, must notify Public Health, Safety, and Preparedness (PHSP) Unit staff if a detainee with confirmed or suspected TB requires special attention upon removal. Health staff should provide as much advance notice as possible. PHSP Unit coordinates international notification and removals with the receiving country's national TB Program. PHSP Unit takes these actions for:

- Detainees with exceptional medical and/or social considerations, e.g., MDR-TB, XDR-TB, other medically complicated TB, HIV coinfection,

concomitant medical and/or mental health conditions, substance abuse, social service needs, and

- Detainees who do not cooperate with the transnational referral process.

Health staff at IHSC-staffed facilities in Arizona routinely coordinate removals of detainees with TB to Mexico in collaboration with the Arizona Department of Health Services (ADHS) and the ERO field office. Health staff in Arizona follow protocols established by ADHS.

D. Considerations for Detainees Released from Custody in the U.S.

The FHPM, IPO, or designee must promptly notify local or state health departments of any detainee with confirmed or presumptive TB who will be, or has been, released from custody. Notifications must include the following information prior to release, if possible: the intended destination, address, telephone numbers, cell phone numbers, and e-mail address. When possible, the FHPM, IPO, or designee should arrange for the public health program staff to interview the detainee prior to release. Health care personnel should educate the detainee regarding the continuity of care and the importance of supervised treatment. Detainees may require a transnational referral, pending final resolution of their proceedings.

Health staff must promptly notify public health authorities in advance of release, if ICE must release a detainee while contagious. Advanced notice enables planning, care coordination, and ensures release in a manner that maintains airborne precautions.

VIII. TB Clearance for Transportation

IHSC heath staff must document clearance for transportation without environmental controls, including time in non-moving conveyances. The documentation should certify the detainee meets the criteria for general population (Appendix C) or clearance for transportation (Appendix E) prior to air or ground transportation.

If a detainee transfers after TST placement and before interpretation, health staff must document the date and time of TST placement, and date assessed for TB symptoms, on the medical transfer summary. Similarly, health staff must document if the detainee transfers after a draw blood for IGRA and before the health staff report results.

IX. Facility TB Risk Classification and Assessment

A. TB Risk Classification

IHSC determines risk classifications for correctional and detention facilities in accordance with CDC TB guidelines for correctional facilities. The guidance classifies detention facilities as either minimal or nonminimal for TB risk. Facilities without evidence of ongoing transmission fall within the nonminimal risk category. Health staff use the ongoing transmission category when there is documented transmission of TB within a facility; this is a temporary category while PHSP Unit investigates and contains TB transmission.

B. TB Risk Assessment

The HSA or designee should evaluate each possible occurrence of TB transmission within the facility, including consideration of the following indicators:

- The number and percentage of staff, detainees, and/or residents whose tests for TB infection converted, and the conditions contributing to the conversion.
- The number of TB exposure incidents (see Contact Investigation).
- Evidence of person-to-person transmission.
- Health staff timeliness in detecting, isolating, and evaluating patients with suspected TB disease.

X. Contact Investigations

A TB contact investigation is the process of identifying and evaluating persons (contacts) who had significant exposure to a person with suspected or confirmed contagious TB disease. The purpose is to identify persons recently infected with TB following significant exposure, so they can receive appropriate treatment and case management. See also CDC TB guidelines for contact investigations.

A. TB Exposure Incident Definition

A TB exposure incident happens when a person has significant exposure to an individual with suspected or confirmed TB disease, or air containing TB bacteria. The exposure occurs during the infected individual's determined contagious period and without appropriate exposure control measures. The exposure can be to any form of TB disease (pleural, laryngeal, or pulmonary).

B. Significant Exposure Factors

Factors used to assess an exposure incident include, but are not limited to:

- Physical proximity of contacts to the person with suspected or confirmed contagious TB disease.
- Volume of air shared between the contagious patient and contacts (i.e., greater the volume of air decreases chance for infection).
- Eight or more hours of exposure to the person with contagious TB disease, including exposure through a shared ventilation system.
- Use of appropriate and functional exposure control measures at the time of contact.
- Contagiousness of the person with confirmed or suspected TB disease at the time of contact.
- Susceptibility of the exposed contact to TB disease, due to other factors listed below.
    - HIV
    - Diabetes mellitus
    - Silicosis
    - Injection or non-injection illegal drug use
    - Alcohol abuse
    - Cancer treatment
    - Other immunosuppressed state (e.g., lymphoma, on chronic steroid therapy)
    - Greater than 10 percent underweight

IHSC defines significant exposure to active TB as close proximity for 8 hours or longer. Detainees are in situations that meet this definition, with their bunkmates (beds closest together) and cellmates, and when sitting within three rows of each other during transport in an enclosed vehicle or airplane. Individuals with most significant exposures and/or highest risk of progression are the highest priority contacts. Health care personnel should evaluate the highest priority contacts first. Health care and public health personnel use their test results to guide decisions regarding further contact investigation.

C. Initiating Contact Investigations

The FHPM, IPO, or designee initiates TB contact investigations once the health care staff confirms the first patient (index case) with active and contagious TB disease. The contact investigation may begin as soon as health staff identify a detainee with high suspicion of TB disease and contagiousness, based on symptoms and positive smear for AFB on microscopy, or cavitary pulmonary disease.

D. TB Contact Investigation Collaborations

The FHPM, IPO, or designee collaborates with local or state health departments to plan and conduct the contact investigation. The FHPM, IPO, or designee determines the scope of the contact investigation in consultation with the local or state health department. The FHPM, IPO, or designee interviews the index patient and reviews the facility configuration to identify their closest contacts. Facility staff accommodate local, state, or federal public health program requests to interview detainees and staff as necessary to support the contact investigation.

The FHPM, IPO, provides the local, state, or federal officials with information to support the contact investigation to the extent permissible under the Privacy Act and other applicable law and regulations, and ICE and DHS policies.

Health staff should recommend or provide TB testing and medical evaluations for detainees with significant exposure; they may recommend and offer treatment, as indicated.

Health staff must seek expert consultation on the management of contacts if the index patient has suspected or confirmed MDR or XDR TB.

E. Facility Considerations

Facility staff should not cohort or restrict movement of detainees exposed to a person with active TB who does not require isolation.

Facility staff exposed to detainees with suspected or confirmed TB require follow up. The FHPM, IPO, or designee shares information about each staff member with the local or state public health department. The public health department coordinates directly with the employee's supervisor to facilitate exposure assessment and staff evaluation.

XI. REFERENCES AND RESOURCES

A. IHSC 05-11 (ERO # 11786.1*), Public Health Actions for Tuberculosis Care.*

B. The Management of Latent TB Infection (LTBI) for Adults in IHSC-staffed facilities.

C. CDC, TB Guidelines by topic.

D. American Academy of Pediatrics, Redbook 2018.

E. CDC, CureTB Program.

F. CDC, TB Centers of Excellence.

G. CDC, State TB Control Offices.

H. Curry International Tuberculosis Center, TB Radiology Resource Page.

I. Curry International Tuberculosis Center, Pediatric TB Resource Page.

J. National Tuberculosis Controllers Association, Resources for TB Care in Corrections Settings.

K. National Tuberculosis Controllers Association, State-City-Territory.

L. ACR-SPR-STR, Practice Parameter for the Performance of Chest Radiography.

M. ACR-SPR-STR, Practice Parameter for the Performance of Portable (Mobile Unit) Chest Radiography.

N. American College of Radiology, Quality and Safety.

O. WHO, Global Tuberculosis Report.

P. Find TB Resources - TB Education & Training.

APPENDIX A: GUIDELINES FOR THE EVALUATION OF PULMONARY TUBERCULOSIS (TB) IN ADULTS IN FIVE CLINICAL SCENARIOS

Patient characteristics	Recommended clinical evaluation
☐ Any patient with a cough of ≥ 2 weeks duration, with at least one additional symptom, including fever, night sweats, weight loss, or hemoptysis OR ☐ Any patient at high risk for TB‡ with an unexplained illness, including respiratory symptoms, of ≥ 2 weeks duration	Chest radiograph: if suggestive of TB, * • Collect three respiratory specimens for acid-fast bacilli (AFB) smear microscopy and culture collected 8–24 hours apart, including 1 early morning specimen; respiratory specimens include ○ 3 sputa (preferably induced), OR ○ 2 sputa (preferably induced) and 1 bronchoalveolar lavage (BAL); at least 1 sputum should be collected after BAL Process at least one respiratory specimen for nucleic acid amplification test (NAAT) with molecular rifampin resistance testing, if possible
☐ Any patient with HIV infection and unexplained cough and fever OR ☐ Any patient at high risk for TB‡ with a diagnosis of community-acquired pneumonia who did not improve after 7 days of treatment	Chest radiograph* • Collect three respiratory specimens for acid-fast bacilli (AFB) smear microscopy and culture collected 8–24 hours apart, including 1 early morning specimen; respiratory specimens include ○ 3 sputa (preferably induced), OR ○ 2 sputa (preferably induced) and 1 BAL; at least 1 sputum should be collected after BAL Process at least one respiratory specimen for nucleic acid amplification test (NAAT) with molecular rifampin resistance testing, if possible
☐ Any patient at high risk for TB‡ with equivocal findings on chest radiograph (performed for any reason) suggestive of TB even if symptoms are minimal or absent	Review of previous chest radiographs* if available • Collect three respiratory specimens for acid-fast bacilli (AFB) smear microscopy and culture collected 8–24 hours apart, including 1 early morning specimen; respiratory specimens include ○ 3 sputa (preferably induced), OR ○ 2 sputa (preferably induced) and 1 BAL; at least 1 sputum should be collected after BAL Process at least one respiratory specimen for nucleic acid amplification test (NAAT) with molecular rifampin resistance testing, if possible

*See TB Radiology Resource Page.

‡ Includes: recent exposure to a person with infectious TB; history of a positive test result for M.*tb* infection; HIV infection; injection or non-injection drug use; foreign birth and immigration in ≤5 years from a region in which incidence is high; residents and employees of high-risk congregate settings; membership in a medically underserved, low-income population; or a medical risk factor for TB (including diabetes mellitus, conditions requiring prolonged corticosteroid and other immunosuppressive therapy, chronic renal failure, certain hematological malignancies and carcinomas, weight >10% below ideal body weight, silicosis, gastrectomy, or jejunoileal bypass).

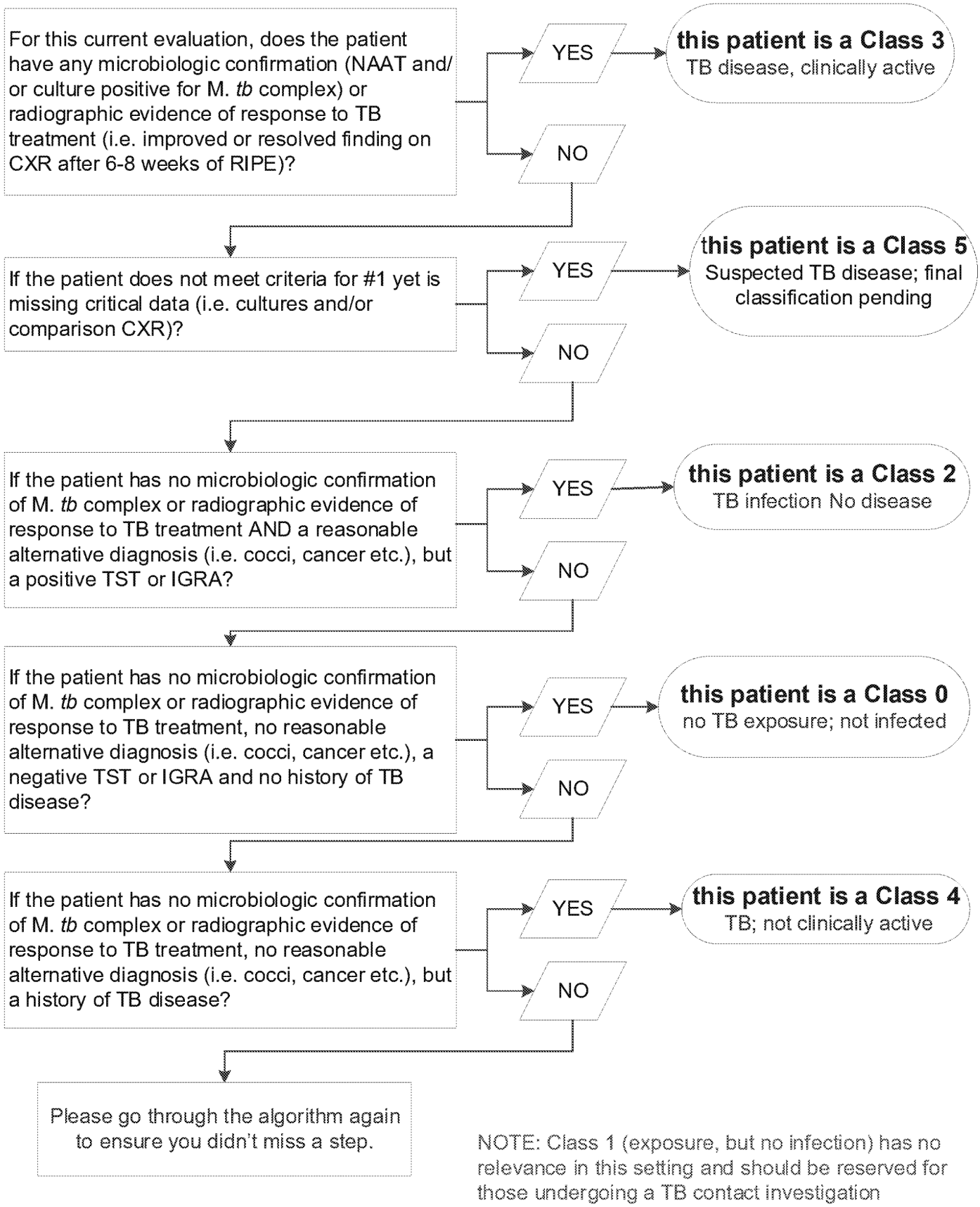
Source:

- Controlling Tuberculosis in the United States Recommendations from the American Thoracic Society, CDC, and the Infectious Diseases Society of America, *MMWR* 2005; 54 (No. RR-12).
- Updated Guidelines for the Use of Nucleic Acid Amplification Tests in the Diagnosis of Tuberculosis, *MMWR* 2009; 58 (01); 7-10.
- CDPH/CTCA. Guidelines for the Assessment of Tuberculosis Patient Infectiousness and Placement into High and Lower Risk Settings, 2017.

APPENDIX B: TUBERCULOSIS CLASSIFICATION

American Thoracic Society Classification System for Tuberculosis		
Class	**Type**	**Description**
0	No TB exposure; not infected	Persons in this class have no history of exposure and a negative reaction to the TST (if tested).
1	TB exposure; no evidence of infection	Persons in class 1 have a history of exposure, but have a negative reaction to the TST or a negative IGRA
2	TB infection; no disease	Persons in class 2 have a positive reaction to the TST (indicate mm in duration) or a positive IGRA; negative bacteriologic studies (if done); and no clinical, bacteriological, or radiographic evidence of active tuberculosis.
3	TB, clinically active	Clinical, bacteriologic, or radiographic evidence of current TB disease; Class 3 includes all patients with clinically active tuberculosis whose diagnostic procedures are complete.
4	TB; not clinically active	A history of previous episode(s) of TB disease or abnormal stable radiographic findings in a person with a positive reaction to a TST (indicate mm induration) or a positive IGRA; negative bacteriologic studies (if done); and no clinical and/or radiographic evidence of current disease.
5	Suspected TB disease; diagnosis pending	The period when the medical provider considers a person for a diagnosis of tuberculosis, whether or not treatment started, until diagnostic procedures are complete. Persons should not remain in this class for more than 3 months. When diagnostic procedures are complete, place the person in one of the preceding classes.

Tuberculosis Diagnostic Classification Decision Tool



APPENDIX C: CRITERIA FOR ASSESSING CONTAGIOUSNESS AND RESPONSE TO TREATMENT FOR PLACEMENT IN GENERAL POPULATION

Category	Criteria
• **No symptoms suggestive of pulmonary TB disease, and** • **Initial respiratory specimen AFB smear negative x3, and** • **Negligible likelihood of MDR TB** (no known exposure to MDR TB, no history of prior episodes of TB with poor compliance during treatment), and not from a country or region with high incidence of MDR and XDR TB‡	1. Produced 3 consecutive respiratory specimens NEGATIVE for AFB on smear microscopy, each obtained 8-24 hours apart with at least one collected in the morning* ○ Respiratory specimens include: • 3 sputa (preferably induced), **OR** • 2 sputa (preferably induced) and 1 bronchoalveolar lavage (BAL); at least 1 sputum should be collected after BAL. **AND** 2. Completed 5–7 days of standard multidrug anti- TB treatment*. ***Initiate treatment after collecting the initial 3 respiratory specimens**

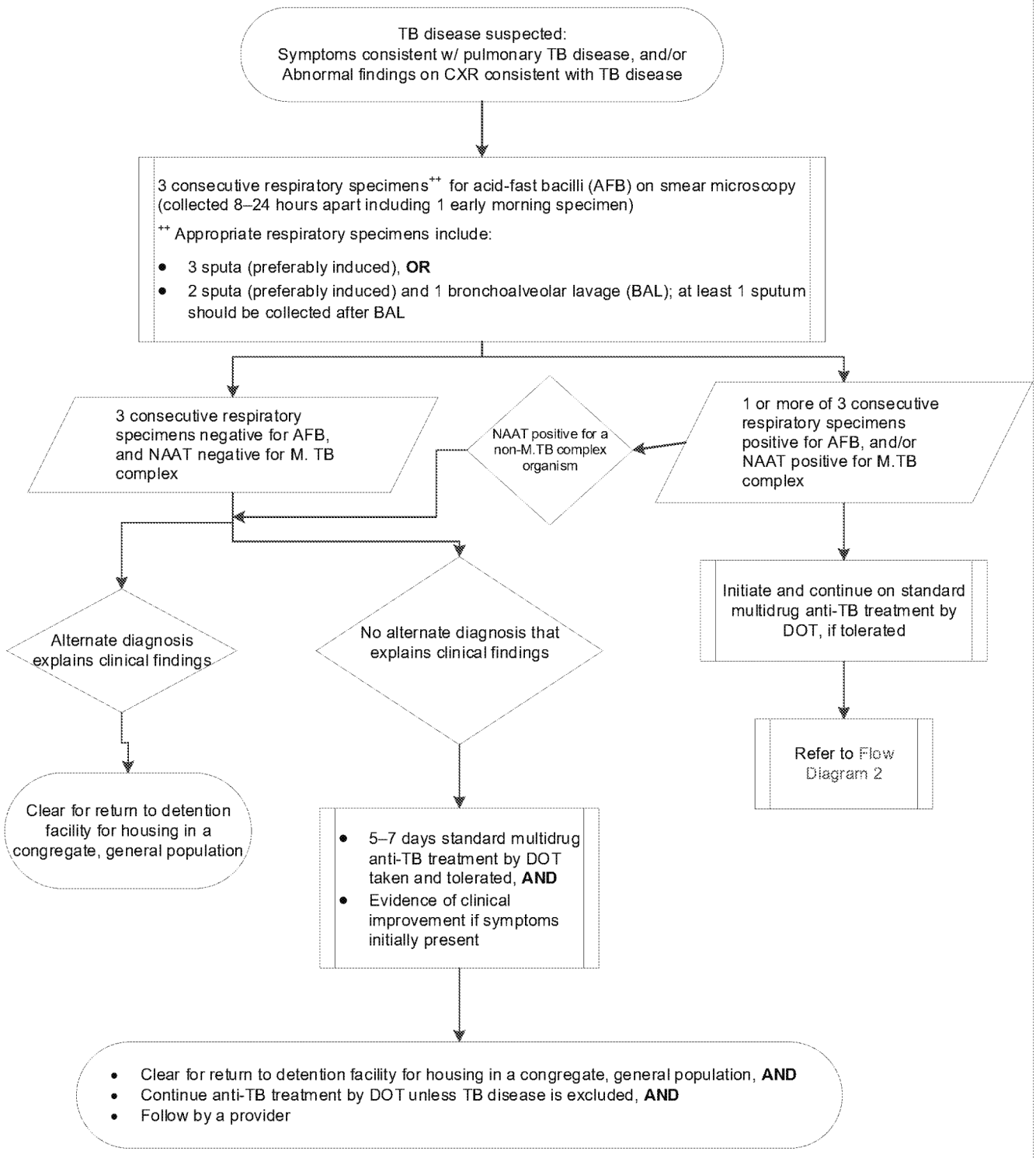
Category	Criteria
• **Symptoms suggestive of pulmonary TB disease, and/or** • **One or more initial three respiratory specimens positive for AFB on smear microscopy, and** • **Negligible likelihood of MDR TB** (no known exposure to MDR TB, no history of prior episodes of TB with poor compliance during treatment), and not from a country or region with high incidence of MDR and XDR TB‡	1. Exhibits clinical improvement. **AND** 2. Completed at least 2 weeks of standard multidrug anti-TB treatment* **AND** 3. Produced 3 consecutive respiratory specimens NEGATIVE for AFB on smear microscopy, each obtained 8-24 hours apart with at least one collected in the morning* ○ Respiratory specimens include: • 3 sputa (preferably induced), **OR** • 2 sputa (preferably induced) and 1 bronchoalveolar lavage (BAL); at least 1 sputum should be collected after BAL ***Initiate treatment after collecting the initial 3 respiratory specimens**

Category	Criteria
• **Suspected or confirmed to have MDR-TB disease** (i.e., TB that is resistant to both isoniazid and rifampin)	1. Health staff notify the Regional Medical Director, Associate Medical Director, Deputy Assistant Director for Clinical Services, and the PHSP Unit of any detainee with or suspected of having MDR or XDR TB for awareness and placement on the HQ Significant Detainee Illness (SDI) list. **AND** 2. Patient produced 3 consecutive sputum specimens negative for AFB on smear microscopy and culture, each obtained 8-24 hours apart with at least two collected in the morning ○ more frequent AFB smears may be useful to assess the early response to treatment and to provide an indication of infectiousness. ○ during treatment of patients with suspected MDR-TB pulmonary tuberculosis, a sputum specimen for microscopic examination and culture should be obtained at a minimum of monthly intervals until two consecutive early morning specimens are negative on culture. **AND** 3. Patient completed at least 2 weeks of effective multidrug anti-TB treatment. **AND** 4. Patient exhibits clinical improvement.

Category	Criteria
Extrapulmonary TB	Detainees with extrapulmonary TB are usually not contagious and do not require placement in AII (except for laryngeal TB); however, TB can transmit from a draining skin or tissue abscess, or post-operative incisions, containing *M. tuberculosis*. Follow established treatment guidelines in consultation with applicable subspecialties which include infectious disease and possibly other depending on the organ(s) involved.

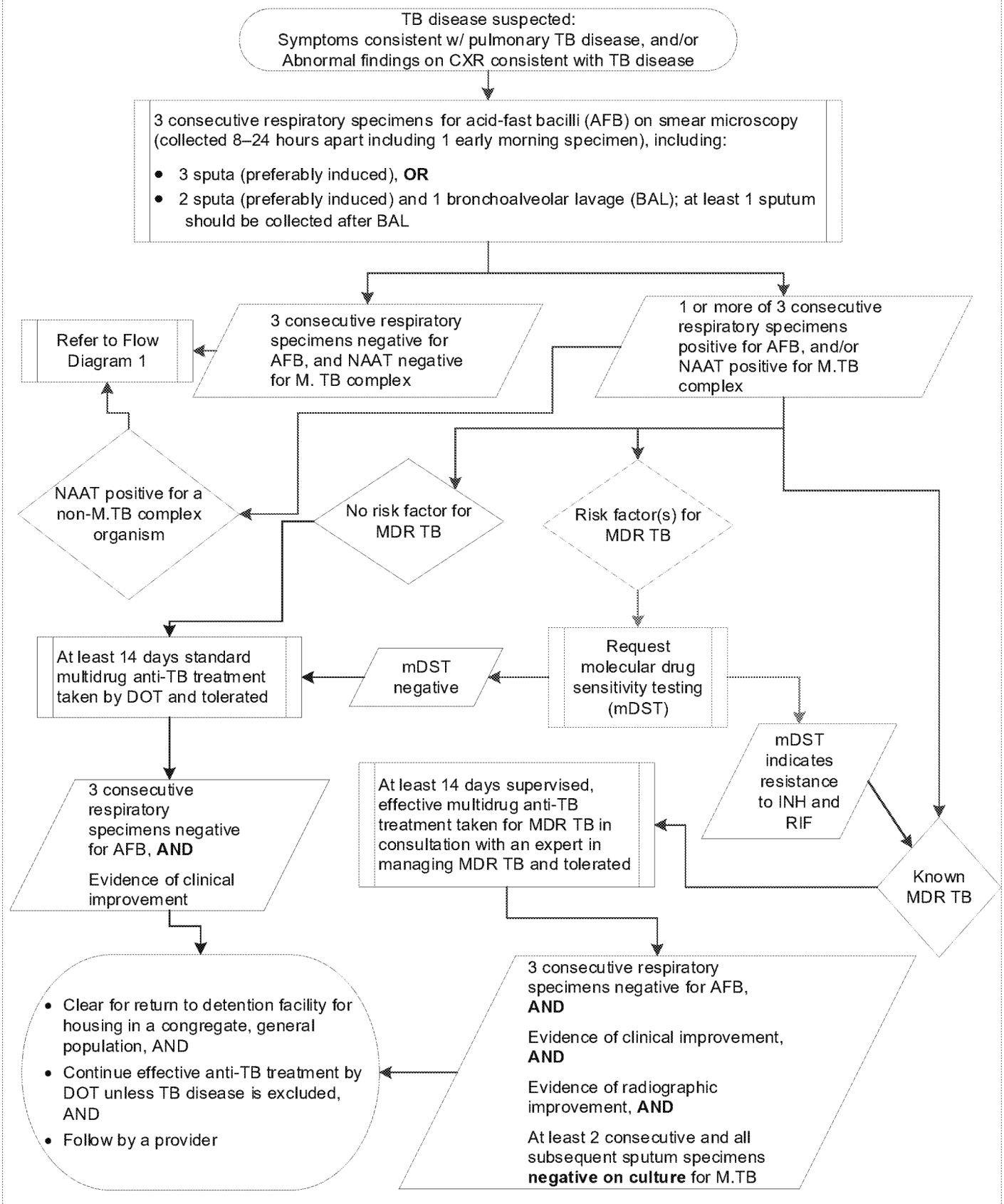
Criteria for returning detainees to a detention facility for housing in the congregate, general population following evaluation for TB disease

Flow diagram 1: with three respiratory specimens negative for AFB collected 8-24 hours apart



Criteria for returning detainees to a detention facility for housing in the congregate, general population following evaluation for TB disease

Flow Diagram 2: with respiratory specimen(s) positive for AFB collected 8-24 hours apart



Checklist for placing detainees with presumptive TB disease in general population

- ☐ 3 sputum specimens (induced if the patient is asymptomatic) negative for AFB smear
  - 1 specimen may be from bronchoscopy but the other 2 should be from separate sputum collections
  - Specimens may be collected anywhere from 8-24 hours apart
- ☐ 1 specimen above includes MTB NAA with test for rifampin mutation
- ☐ TST or IGRA
- ☐ HIV screen
- ☐ Baseline cbc, LFTs, creatinine
- ☐ For AFB smear negative patients, weight-based RIPE/B6 x 5 days unless another diagnosis explaining the CXR findings is confirmed
- ☐ For AFB positive patients, weight-based RIPE/B6 for a minimum of 14 days in addition to 3 negatives, consecutively collected AFB smears
- ☐ Hgba1c
- ☐ Enrollment with CureTB

APPENDIX D: TRANSNATIONAL REFERRALS FOR TB CONTINUITY OF CARE

Centers for Disease Control and Prevention (CDC) CureTB Program

- Provides transnational TB referral services regardless of nationality.
- Transnational continuity of care program operated by the CDC, Division of Global Migration and Quarantine, U.S.-Mexico Unit, in partnership with San Diego County TB Branch.
- You can submit a CureTB referral in three ways:

  Fax: 404-471[redacted](b)(6),(b)(7)(C)

  E-mail: (b)(6),(b)(7)(C)@cdc.gov (type the name of the detention facility in subject)

  Call: 619-542-(b)(6),(b)(7)(C) (main)
- Toll free patient line:

  International: 001-800-789-1751

  From US: 1-800-789-1751
- Website: www.CureTB.org

How to refer a patient to CureTB:

- Provide education to the patient on the continuity of care and referral process.
- The referral should be made as soon as a diagnosis of TB is suspected, and treatment is initiated or planned.
- No written consent is required.
- Fax or secure email the most current TB-CM progress note (merged to include all prior TB-CM notes), inclusive following info, as well as laboratory reports as attachments:
  - Patient's name, A#, and date of birth
  - Patient's country of nationality.
  - Chest X-Ray report(s) and digital image(s).
  - Pulmonary cases: sputum smear results & culture/drug susceptibilities (as available).
  - Extra-pulmonary cases: specimen type with smear and culture/drug susceptibilities, pathology report.
  - Other known co-morbidities.
  - Treatment regimen (medications, dosages, start dates).
  - Adverse TB medication reactions.

- Name of the detention facility and site contact person for medical information clarification.

Next Steps:

- CureTB staff respond to your request and provide dates and times available to conduct the telephone interview with the patient. Ideally, the interviews should happen within 24 hours after CureTB receives all the needed information. CureTB conducts interviews on business days except by special arrangement.
- CureTB staff conduct patient interviews by phone to obtain and provide information to assist patient in connecting to TB care upon release.
- CureTB send a Referral Verification Notice Form to the referring entity. Give the bottom half of the form to the patient upon release.

APPENDIX E: TB CLEARANCE FOR TRANSPORTATION

ICE Custody <72 Hours	ICE Custody ≥72 Hours
No symptoms suggestive of TB assessed and documented within one year prior to transport; **AND**	No symptoms suggestive of TB assessed and documented within one year prior to transport, **AND**
Prior positive TST or IGRA and prior normal CXR (not suggestive of TB disease); **OR**	No documented indication of contagious pulmonary TB disease
Negative TST or IGRA within one year of scheduled transport; **OR**	
CXR not suggestive of TB disease; **OR**	
Three consecutive respiratory specimens[++] microscopy results smear negative for AFB and no clinical suspicion of TB disease; **OR**	
Suspected or confirmed drug-susceptible TB disease; ***AND*** three consecutive respiratory specimens[++] microscopy results smear negative for AFB; ***AND*** taking and tolerating multidrug, anti-TB therapy; ***AND*** evidence of clinical improvement; **OR**	
Suspected or confirmed MDR- or XDR-TB disease; ***AND*** three consecutive respiratory specimens[++] microscopy results smear negative for AFB; ***AND*** taking and tolerating an effective, multidrug, anti-TB regimen; ***AND*** evidence of clinical improvement; ***AND*** at least two early morning sputum specimens of good quality, collected on consecutive days, that are all negative for MTB on culture; **OR**	
Reliable documentation of recent, successful completion of effective TB therapy	

++ Respiratory specimens include:
• 3 sputa (preferably induced), **OR**
2 sputa (preferably induced) and 1 bronchoalveolar lavage (BAL); at least 1 sputum should be collected after BAL.