STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Standards of Care for Patients with Suspected and Confirmed Drug-Susceptible Tuberculosis in Connecticut: Reporting, Diagnosis, and Treatment

*Recommendations from the Connecticut Department of Public Health and The Connecticut Advisory Committee for the Elimination of Tuberculosis**
Revised 2/2014

The Connecticut Department of Public Health (DPH) in collaboration with the Connecticut Advisory Committee for the Elimination of Tuberculosis have developed and adopted standards of care for patients suspected of and subsequently diagnosed with drug-susceptible tuberculosis in Connecticut. These standards are based on national standards developed by the Centers for Disease Control and Prevention (CDC) and its advisory groups[1-3] and state requirements to report tuberculosis and make a treatment plan in collaboration with and approval by local and/or state public health officials.[4–5] These standards are intended to provide guidance in Connecticut for clinicians, hospitals, local health departments, and state tuberculosis (TB) control and state regulatory officials.

DPH TB Control Program Responsibilities and Expectations

- Provide free drugs to treat TB disease and TB infection (860-509-7722)
- Help arrange for or, if necessary, provide directly observed therapy (DOT) and monitoring for adverse events for all patients with TB disease
- Identify providers who will accept uninsured patients
- Provide medical consultation
- Provide smear, culture, and drug susceptibility testing at no cost at the Connecticut Public Health Laboratory (860-509-8573). Genotyping results are also facilitated through the Connecticut Public Health Laboratory
- Provide guidance to local health departments for the identification and evaluation of contacts to patients with pulmonary TB; provide materials for identifying contacts with TB infection (skin test or blood test)
- Reimburse for diagnostic tests, medical visits, and treatment including DOT for TB patients who are uninsured or underinsured

Summary of Key Standards

Provider Responsibilities and Expectations

- Providers and laboratories are required to notify the DPH TB Control Program and local health department immediately by phone followed by a written report within 12 hours when TB disease is strongly suspected in a patient, usually when treatment is initiated or when there is radiologic or microbiologic evidence of TB disease.[6]
- Clinical management of a patient with TB includes monitoring treatment to completion. The provider initiating treatment for TB assumes this responsibility unless clinical management has been formally transferred to another provider.
- Additional notification to the DPH TB Control Program is required immediately if 1) therapy is stopped for medical or any other reason, 2) a patient is not adherent to treatment or appointments, 3) a patient is lost to follow-up, and/or 4) the patient has persistently positive smears for acid fast bacilli (AFB) or culture results after 2 months of treatment.
- Providers who care for persons at risk for TB should maintain proficiency in the diagnosis and treatment of TB. They should confer with the DPH TB Control Program regarding treatment whenever needed.
- Providers should offer opt out human immunodeficiency virus (HIV) testing to all patients with TB disease and TB infection.

TB Diagnosis

- Most patients being evaluated for pulmonary TB disease usually only need a chest radiograph to make a presumptive diagnosis of TB and for monitoring response to treatment. CT scans might be ordered for patients in whom other diagnoses are being considered.
- At least three sputum specimens (spontaneous or induced) ≥8 hours apart should be submitted from patients with suspected pulmonary TB for acid fast bacilli (AFB) sputum-smear results, mycobacterial culture and nucleic acid amplification testing (NAA) before starting treatment. Specimens other than sputum should be considered only if sputum cannot be obtained.
- A negative tuberculin skin test (TST) or interferon gamma release assay (IGRA) result should not be considered as evidence against TB disease in a patient with TB symptoms.
- A negative NAA should not be considered as definitive evidence against TB disease in a patient with TB symptoms.
- An HIV test should be performed for all TB patients.
- The diagnosis of culture-negative TB or intra-thoracic tuberculosis in children is usually a clinical diagnosis.

TB Treatment

- For most patients with a definite or presumptive diagnosis of TB, four antituberculosis drugs (isoniazid, rifampin, pyrazinamide, and ethambutol)

should be started after specimens are collected for microbiologic examination but before cultures are finalized.

- All persons with TB must have a treatment plan approved by the local health director in the patient's town of residence, as required by state law.[4] For hospitalized patients, this plan must be made and approved before discharge from the hospital.
- For patients with pulmonary, laryngeal, or pleural TB, the plan must include treatment by directly observed therapy (DOT).
- Patients should be actively monitored for adherence and adverse events related to treatment with a minimum of a monthly office visit until therapy is completed. Adherence monitoring should include notation of cumulative and interval counts of the number of **doses** received by DOT.
- Consultation with an expert is highly recommended for all patients co-infected with HIV and patients with drug resistant TB. Medical consultation is available through the DPH TB Control Program.

TB Infection Control

- Patients with confirmed or suspected TB in institutionalized settings should be isolated in an airborne isolation (e.g. negative pressure) room.
- Patients with confirmed or suspected TB in institutionalized settings should not be released from airborne isolation until the following criteria have been met: 1) three consecutive negative AFB sputum smear results, 2) demonstrated clinical improvement (e.g., no cough), 3) tolerance to antituberculosis drugs, and 4) have received standard multidrug anti-tuberculosis treatment for a minimum of 2 weeks.
- Many TB patients do not need to be hospitalized and can be safely isolated at home. Home isolation should be considered for individual patients in consultation with the local health department responsible for the patient.
- TB patients isolated at home (AFB smear positive or negative), in general, should meet the same criteria as hospitalized patients for release from isolation and return to work and routine activities.

Local Health Department Responsibilities and Expectations for TB Patient Case Management

- Local health departments retain the authority and responsibility for the case management of all TB patients in their jurisdiction, regardless of provider type or site of disease.[4]
- TB case management includes the following minimum activities:
    - Review TB Surveillance Reports (TB-86) and interview all new patients regardless of site of disease in a timely manner (usually within 3 working days).
    - Approve appropriate discharge plans for hospitalized patients and treatment plans for non-hospitalized patients.
    - Ensure timely and thorough contact investigations are performed for infectious TB patients.
    - Ensure medical treatment, follow-up and adherence, including DOT.

- Regularly monitor changes and updates to patient treatment plans.

Standards for Provider Responsibilities and Expectations

Standard 1.1 Reporting to the DPH TB Control Program and the local health department

TB disease, regardless of anatomic site, is a reportable condition to DPH.[5] All providers and laboratories must immediately report patients having suspected or confirmed TB disease by telephone to the DPH TB Control Program (860-509-7722) followed by a written report within 12 hours of suspicion of disease. Patients should also be reported to the local health department where the patient resides. Patients should be reported using the two-page Tuberculosis Surveillance Report TB-86 Form (Appendix 1) Patients should be reported, even if definitive culture results are not known, if there is microbiologic (e.g. positive AFB smears) or radiologic evidence of TB.

Standard 1.2 Assumption of Care and Appropriate Monitoring of Patients

Any healthcare provider treating a patient for TB assumes an important public health responsibility. To fulfill this responsibility, the provider must be capable of providing care through the completion of treatment. This includes seeing patients at least monthly and sending the Tuberculosis Therapy and Follow-up Care Report Form TB-32 (Appendix 1) to both DPH and the local health department. If a provider is unable to do this for the full course of treatment, they must facilitate and formally transfer care of the patient to another provider. **No patient can be denied care because of their inability to pay for their TB care.**[7]

The minimum recommended schedule for medical follow-up is as follows:

- After the initial appointment, patients should have clinical evaluations by the provider at least monthly.
- Sputa should be obtained for AFB smear and culture at a minimum of monthly intervals until two consecutive specimens are negative on culture.
- The State TB Control Program should be informed immediately about patients who are lost to medical follow-up.
- Routine measurements of hepatic and renal function and platelet count are not necessary during treatment unless patients have baseline abnormalities or are at increased risk of hepatotoxicity (e.g., hepatitis B or C virus infection, excessive alcohol use).
- At each monthly visit, patients taking ethambutol should be questioned regarding possible visual disturbances including blurred vision or scotoma. Monthly office testing of visual acuity and color discrimination is recommended. Patients with abnormal findings should be referred to an ophthalmologist.

Additional notification to the TB Control Program and the local health department is also required when 1) therapy is stopped for medical or any other reason, 2) a patient is nonadherent to treatment or appointments, 3) a patient is lost to follow-up, or 4) the patient has persistently positive smears for AFB or culture results after 2 months of treatment.

Standard 1.3 Maintain proficiency in TB diagnosis and treatment
It is expected that healthcare providers who care for patients at risk for TB disease maintain proficiency in the diagnosis and treatment of TB. Opportunities for TB education are available both through webinars and on-site trainings throughout the year in the region through a variety of resources.[8] **Medical consultation is available through DPH and providers are highly encouraged to seek consultation whenever needed, especially at the beginning of treatment.** Consultation with DPH should be actively sought for all of the following situations: HIV coinfection, drug resistance, children ≤5 years old, and pregnancy.

Standard 1.4 HIV Testing
Given the strong interaction between TB and HIV and the importance and impact that HIV infection and treatment has on TB, all patients with TB disease, regardless of age, should be routinely tested for HIV infection.[9-10] It is also recommended that all patients with TB infection receive HIV testing. Since July 1, 2011, informed consent for HIV testing is no longer required in the state of Connecticut.[11]

Standards for TB Diagnosis

Standard 2.1 Think TB
All persons with otherwise unexplained productive cough lasting three weeks or more or other signs and symptoms suggestive of TB should be evaluated for TB, especially those with a TB risk factor. A TB risk assessment, including risk factors, can be found in Appendix 2.

Standard 2.2 Chest Radiography
Chest radiography is the initial imaging modality of choice for evaluating a patient with suspected pulmonary TB.

- Initially, the anteroposterior is the optimal view with possible additional lordotic or lateral views obtained as needed.
- Children aged ≤7 years should have anteroposterior and lateral views obtained at the initial imaging.

Computerized tomography is usually not required for diagnosis but may be done if other conditions are being considered in the differential diagnosis (e.g., cancer).

Standard 2.3 Collection of Specimens and Microbiologic Testing
All persons with chest radiographic findings suggestive of TB should have three sputum specimens submitted for microbiological examination, ideally, before therapy is started. This includes acid fast bacilli (AFB) smear and culture. Adults and children suspected of having pulmonary TB that are capable of producing sputum should have sputum specimens collected 8–24 hours apart. At least one early morning specimen should be obtained. In patients who are not producing sputum spontaneously, induction of sputum using aerosolized hypertonic saline should be attempted in an airborne infection isolation setting, if possible, and any specimen resulting from an induction should be sent to the laboratory for AFB smear and culture; such specimens should be labeled "induced sputum". Sputum induction can almost always yield a specimen; even if specimens appear watery, they should be submitted for testing. DPH and local health departments can assist in the collection of induced sputum for non-hospitalized patients. In the rare event that sputum induction is unsuccessful, bronchoscopy should be considered for adults and adolescents.

Children who cannot produce sputum should have gastric aspirates performed for culture and drug susceptibility testing.

Treatment for persons suspected with TB disease should be continued until AFB cultures are finalized (6 weeks after collection). Even if cultures are negative, some patients might be treated for culture-negative pulmonary TB (see Standard 3.6).

Standard 2.4 Nucleic Acid Amplification (NAA) Testing
NAA testing is recommended for all patients with suspicion of TB and in whom the result would impact management of the patient. An NAA positive result on an AFB positive sputum smear is presumed TB unless proven otherwise. A negative NAA result on an AFB negative sputum smear should not be used to rule out TB disease in a patient with TB symptoms. NAA testing in available through the DPH Public Health Laboratory; this test can also detect rifampin resistance. DPH staff can assist in the interpretation of NAA results in conjunction with AFB smear results.[12-13] (Appendix 3)

Standard 2.5 TST/IGRA Testing
A tuberculin skin test (TST) or interferon gamma release assay (IGRA) is not a necessary test to diagnose TB disease. A negative TST or IGRA should never be used to rule out TB disease in a patient with clinical signs and symptoms of TB.[1]

Standard 2.6 HIV Testing
All patients with suspected or confirmed TB disease, regardless of age or site of disease, should be tested for HIV. Testing should ideally be opt out testing.[10] Informed consent is no longer required for HIV testing in Connecticut.[11]

Standard 2.8 Radiographic Findings of Previous TB Disease

Patients with parenchymal or fibrotic lesions should not be classified as "old" healed TB based on a single imaging study of the lungs. Either a negative full diagnostic evaluation including sputum cultures or two stable chest radiographs taken at least 6 months apart in the absence of symptoms are needed. Patients for whom the clinician has a high suspicion of TB, especially those with abnormal chest radiographs, should have appropriate treatment started and continued until cultures are finalized. Some patients with negative cultures might be treated for culture-negative TB (see Standard 3.6).[1]

Standard 2.9 TB in children[14]

The diagnosis of pulmonary or intrathoracic adenopathy TB in children with negative sputum smears should be based on the finding of chest radiographic abnormalities consistent with TB and either a history of exposure to an infectious patient or evidence of TB infection (positive TST or IGRA result). For such patients, obtain specimens by gastric washings or sputum induction for culture and drug susceptibility testing.

Standards for TB Treatment

Standard 3.1 Treatment Regimen

All patients (including those with HIV infection) who have not been treated previously should receive a nationally accepted first-line treatment regimen using DOT.[1]

- The initial treatment phase (2 months) should start with daily (5–7 days per week) isoniazid, rifampin, pyrazinamide, and ethambutol along with pyridoxine (vitamin B6.) Dosages of medications are based on CDC recommendations; adults and children weighing more than 40 kg should be given the standard dosages of medications.[1]
- Once sensitivities are known, ethambutol can be stopped if the organism is found to be susceptible to isoniazid, rifampin and pyrazinamide. For pansensitive TB, these three drugs are continued for a total initiation phase of 2 months. Regimens should begin as daily therapy for at least 2 weeks, with treatment being daily or intermittent (twice or thrice weekly with DOT) thereafter.
- The continuation phase (4 months) for most patients consists of isoniazid and rifampin given daily or intermittently (twice or thrice weekly) until a total of six months of therapy is achieved or longer if there have been interruptions in treatment.
- For patients with pulmonary cavitary lesions on chest radiograph and positive culture results after 2 months of treatment, or patients whose initial treatment phase did not include pyrazinamide, the continuation phase should be extended by three months for a total of 9 months of therapy.

- In patients with HIV infection, therapy should minimally be three times a week or daily (5–7 days per week). It is strongly recommended that patients be referred to an expert in treating HIV/TB coinfection.[1]
- Fixed-dose combinations of isoniazid and rifampin as well as isoniazid, rifampin, and pyrazinamide with B6 supplementation are options to assure all drugs are taken during the continuation phase, especially for days when medication ingestion cannot be observed.
- Never add one drug to a failing treatment regimen. Contact the DPH TB Control Program for medical consultation.
- Fluoroquinolones should be used with caution in the treatment of presumed community-acquired pneumonia in patients with a risk factor for TB because they are active against *Mycobacterium tuberculosis* complex and, thus, may cause transient improvement in persons with TB and lead to delayed diagnosis and continued transmission.[15] Monotherapy for undiagnosed active TB may lead to drug resistance.[16] Fluoroquinolones generally should not be added to the standard TB regimen or used to replace a drug in the standard TB regimen unless there is a concern for drug resistance. **If there is a concern for drug resistance, call the DPH TB Control Program for consultation.**

Standard 3.2 Treatment Adjustments

Once drug susceptibility results are known and the isolate is susceptible to isoniazid, rifampin, and pyrazinamide, the use of ethambutol can be stopped. Pyrazinamide should be stopped after two months of treatment. Patients with pulmonary cavitary disease and a positive sputum culture after two months of treatment should have the length of treatment extended to nine months total treatment.

If treatment is interrupted for more than 2 weeks, a plan to restart therapy consistent with CDC guidelines should be discussed with the DPH TB Control Program.[1]

Standard 3.3 Directly Observed Therapy (DOT)

DOT is the standard of care for all patients with pulmonary, laryngeal, or pleural TB and should be used for all doses during the course of therapy. DOT is also recommended for all patients with extrapulmonary TB, especially if patients are high risk for complications or poor outcomes (e.g. pregnant women, children, HIV coinfected).

Standard 3.4 Co-infection with HIV

All patients with TB and HIV coinfection should be evaluated immediately to determine if antiretroviral therapy is indicated during the course of treatment for TB. Appropriate arrangements for access to antiretroviral drugs should be made for patients who meet indications for treatment.

- Initiation of treatment for TB disease should not be delayed.

- Given the complexity of concurrent administration of antituberculosis treatment and antiretroviral therapy, immediate consultation with a physician who is expert in treatment of TB and HIV coinfection is recommended before initiation of concurrent treatment for HIV infection, regardless of which disease appeared first.

Standard 3.5 Assessing Drug Resistance
An assessment of the likelihood of drug resistance, based on history of prior treatment, exposure to a possible source patient having a drug-resistant organism, and the prevalence of drug resistance in the country from which the patient originated, should be obtained for all patients.

- Notify the DPH TB Control Program whenever drug resistance is a concern.
- Patients who fail treatment or who have persistently positive cultures should always be assessed for possible drug resistance.
- For patients in whom drug resistance is considered to be likely, culture and drug susceptibility testing for isoniazid, rifampin, pyrazinamide, and ethambutol should be performed promptly and second-line drug susceptibility testing should be strongly considered. The DPH Public Health Laboratory can facilitate the testing of specimens for drug resistance at CDC and other public health laboratories.

Standard 3.6 Smear-Negative Pulmonary TB and Culture Negative TB[1]
The early diagnosis of sputum smear-negative pulmonary TB should be based on the following criteria:

- The patient has a risk factor for infection with *Mycobacterium tuberculosis*
- Clinical course and chest radiography findings are consistent with TB.
- The patient has at least three negative sputum AFB smears (including at least one early morning specimen).
- Sputum cultures are obtained with results pending.
- There are no alternative diagnoses that have been confirmed and would explain the findings.

Smear negative patients who ultimately have negative cultures might be considered to have culture negative TB if there is clinical improvement while on the standard four drug TB treatment regimen and improvement on chest radiograph after two months of treatment. If these criteria are met, the patient can be continued on isoniazid and rifampin for two more months (four months total) to complete therapy for culture negative TB.

Standards for TB Infection Control

Note: These standards apply to patients with TB disease sensitive to the usual regimen of TB drugs. For patients with multi-drug resistant TB, please consult with the DPH TB Control Program for guidance on infection control in all setting types.

Standard 4.1 Airborne Infection Isolation in Institutionalized Settings
Institutionalized patients with suspected TB in congregate settings (e.g., hospital, correctional facility, long-term care facility) should be immediately segregated in an airborne infection isolation (AII) room until deemed non-infectious. CDC minimally recommends the infection control measures below.

- Obtain three sputum specimens for AFB smears. Specimens should be collected 8–24 hours apart and at least one early morning specimen should be obtained.
- Patients who have a positive AFB sputum smear result or are smear negative but TB is highly probable should start on standard multidrug anti-tuberculosis treatment using 4 drugs.
- For institutionalized patients begun on treatment for strongly suspected TB, release from AII should be conditioned on the following: 1) three consecutive negative AFB sputum smear results, 2) demonstrated clinical improvement (e.g., reduced cough), 3) tolerance to antituberculosis drugs, and 4) have received standard multidrug anti-tuberculosis treatment for a minimum of 2 weeks. Additional considerations that may warrant longer isolation are 1) extensive pulmonary disease, 2) possible MDR TB or XDR TB, 3) likely exposure of immunocompromised persons if released from isolation too soon, or 4) noncooperation with treatment.
- For patients placed in AII because of possible pulmonary or laryngeal TB, AII precautions may be discontinued when the patient has three consecutive negative AFB sputum smear results and either 1) another diagnosis that explains the clinical condition or 2) the patient has received appropriate antituberculous treatment with multiple drugs for a minimum of 2 weeks, is clinically improving, and has no cough.
- If a patient has two AFB smear positive specimens that are NAA negative, they can generally be presumed to not have TB and be released from AII.
- Hospitalized children aged <8 years without a parenchymal or cavitary lesion on chest radiograph might not require placement in an AII room. Policies and procedures should be in place to evaluate children with suspected primary TB for infectiousness (e.g., cough, infiltrate or cavitation on chest radiograph).
- To protect hospital staff and other patients from undiagnosed source TB cases, adult and adolescent family, household members, and friends visiting children hospitalized with TB should be screened at least with a symptom check and, if symptomatic, a chest radiograph before being allowed to visit the child.[14]

Standard 4.2 Infection Control for Smear Positive Pulmonary TB Patients in the Community
Many TB patients do not need to be hospitalized and can be safely isolated at home. See “Standards for Local Health Department Responsibilities and Expectations for TB Patient Case Management” for necessary activities to determine if a household is appropriate for home isolation of a patient. Smear

positive pulmonary TB patients isolated at home should meet the same criteria listed above in Standard 4.1 for release from isolation and return to work and routine activities.

Standard 4.3 Infection Control for Smear-Negative Pulmonary TB Patients in the Community

In general, patients with smear negative pulmonary TB should be isolated and not allowed to return to work or routine activities until the same criteria as outlined in Standard 4.1 above are met. Any deviation from these criteria must be discussed with and approved by the local health department and the DPH TB Control Program.

Standards for Local Health Department Responsibilities and Expectations for TB Patient Case Management

Standard 5.1 Legal authority for Responsibility and Management of TB Patients

Connecticut General Statutes 19a-265 outlines the legal authority for the care and management of TB patients.[5] Local health departments retain the authority and responsibility for the case management of all TB patients in their jurisdiction, regardless of provider type or site of disease.

Standard 5.2 Treatment/Discharge Plans

Patients who are evaluated, diagnosed, or treated for suspected TB disease require a plan for the continuation of treatment. Treatment plans are used for those for whom treatment was initiated on an outpatient basis. Discharge plans are used for those for whom treatment was initiated in an institutional setting (e.g., hospital, correctional facility, long-term care facility). All plans should be developed in collaboration with and approved by the local health department in the town to which the patient is being discharged before release or currently resides. The plan should include 1) the treatment regimen including amount of treatment completed in the facility and duration of treatment needed, 2) the name of the person or agency providing DOT, 3) obstacles to adherence, 4) patient contact information, and 5) the name and contact information of the provider (Appendix 4). The patient should not be discharged until the local health director or his/her designee discusses, approves, and signs the discharge plan along with the treating clinical provider and the patient.[5]

Patients can be discharged home while still potentially infectious or started on TB treatment on an outpatient basis if they have a specific treatment plan including DOT that has been approved by the local public health department director (or their designee); such patients should have stable housing and there should be no risk of exposing uninfected persons who are at high risk for progressing to TB disease (e.g., children aged <5 years, persons infected with

HIV). Until the patient is deemed noninfectious, he or she should not have visitors who are uninfected.

Standard 5.3 Contact Investigations for Infectious TB Patients[17]
Every new TB patient, regardless of site of disease, should have at least one interview and/or visit within 3 business days of notification of the case to the local health department. Local health departments are responsible for ensuring that a contact investigation is performed for all infectious TB patients; this includes patients with pulmonary, laryngeal and pleural TB. Contact investigations begin with an interview of the patient and should be done within three business days of notification of the case. This might mean interviewing a patient in the hospital when feasible. Contacts identified and the outcomes of their evaluation should be documented on a Contact Investigation Worksheet (TB-5) form and returned to the DPH TB Control Program (Appendix 5). Interim TB-5 forms should be returned within 60 days of case notification with most contact investigations completed and final documentation sent to the DPH TB Control Program within 90 days of case notification. DPH TB Control Program staffs are available to assist with contact investigations, especially those that involve contacts outside of the jurisdiction of the local health department for the patient and workplace investigations.

Identifying and evaluating high risk contacts should be the first priority in a contact investigation. This group includes children <5 years old and immunocompromised adult contacts; these contacts should be evaluated and managed consistent with national and state recommendations.[14,17] This includes a TST or IGRA AND a chest radiograph. If both results are negative, the contact should be placed on appropriate prophylaxis (isoniazid or rifampin, based on the suspected sensitivity pattern of the patient) until the exposure/incubation period is complete. Patients returning to a home setting with these high risk contacts should not do so until the contacts have completed this evaluation and started prophylactic therapy.

Minimum evaluation for persons who have significant contact with an infectious patient should be a TST or IGRA followed by a chest radiograph if either of these tests is positive and any other appropriate tests to complete an evaluation for active TB. Contacts with an initially negative TST or IGRA result should have the test repeated 8–10 weeks after exposure has ended. If the test result converts to positive, they should be managed as any other contact with TB infection. Contacts with a positive TST or IGRA should be reported to both the local health department and DPH TB Control Program and offered treatment for TB infection unless contraindicated.

Standard 5.4 Promoting Adherence and Directly Observed Therapy (DOT)
TB control entails a case management system that includes the patient, the provider, and the health department. To foster and assess adherence, a patient-

centered approach to drug treatment, based on mutual respect between the patient and the provider, should be developed for all patients.

DOT is the standard of care for all patients with pulmonary, laryngeal, or pleural TB and should be used for **all** doses during the course of therapy. DOT is also recommended for all patients with extrapulmonary TB, especially if patients have a history of non-adherence or are at high risk for complications or poor outcomes (e.g. pregnant women, children, HIV coinfected). DOT is recommended for all patients regardless of background, profession or socioeconomic status.

A written record (DOT log) of all medications given, bacteriologic response, and adverse reactions should be maintained for all patients. (Appendix 6)

- The number of **doses** taken by the patient defines treatment completion.
- Documentation of each dose should be done by the person providing DOT and be available to the clinician at each visit.

Based on availability, the DPH TB Control Program can provide measures such as incentives (e.g. grocery gift cards) and/or enablers (e.g. bus tokens) to promote adherence for individual TB patients.

Standard 5.5 Monitoring Treatment and Adverse Drug Effects

The local health department is responsible for monitoring all patients with TB disease, regardless of site of disease, from initiation to completion of treatment. The responsibility for monitoring includes patients who might be receiving DOT or other services from DPH TB Control Program staff, visiting nurse associations, or other facilities. This includes (but is not limited to) ensuring adherence to DOT and medical visits and addressing nonadherence when necessary, communicating with healthcare providers for treatment updates or about adverse events, and maintaining appropriate documentation (e.g. DOT logs).

All patients should be monitored for response to therapy, best judged in patients with pulmonary and laryngeal TB by follow-up sputum microscopy and culture on a monthly basis until two consecutive sputa cultures are negative.

- At each appointment and dose by DOT, patients should be questioned about possible adverse drug effects.
- Patients with persistently positive AFB smears or culture results after 2 months of medications, with or without symptoms, should be evaluated carefully to identify the cause of the delayed response in consultation with the DPH TB Control Program.
- Patients who have positive cultures after four months of treatment are considered treatment failures and should have therapy modified in consultation with an expert. In patients with extrapulmonary TB and in children, the response to treatment is best assessed clinically.

References

1. Centers for Disease Control and Prevention. Treatment of tuberculosis, American Thoracic Society, CDC, and Infectious Diseases Society of America. MMWR 2003;52(No. RR-11) Access at: http://www.cdc.gov/mmwr/PDF/rr/rr5211.pdf
2. Centers for Disease Control and Prevention. Guidelines for preventing the transmission of *Mycobacterium tuberculosis* in health-care settings, 2005. MMWR 2005;54(No. RR-17). Access at: http://www.cdc.gov/mmwr/pdf/rr/rr5417.pdf
3. Centers for Disease Control and Prevention. Targeted tuberculin testing and treatment of latent tuberculosis infection. MMWR 2000;49(No. RR-6). Access at: http://www.cdc.gov/mmwr/PDF/rr/rr4906.pdf
4. Connecticut General Statutes, Section 19a-215 (Reports of diseases on the health commissioner's list of reportable diseases, emergency illnesses and health conditions and laboratory findings. Reporting requirements. Confidentiality. Fines.) Available at: http://search.cga.state.ct.us/dtsearch_pub_statutes.html
5. Connecticut General Statutes, Section 19a-265 (Tuberculosis control. Emergency Commitment). Available at: http://search.cga.state.ct.us/dtsearch_pub_statutes.html
6. Connecticut Department of Public Health. Reportable diseases, emergency illnesses and health conditions, and reportable laboratory findings: changes for 2014. Connecticut Epidemiologist 2014;34: 1–4.
7. Connecticut General Statutes, Section 19a-255a-b. (Treatment of persons with tuberculosis. Payment sources for treatment.) Available at: http://search.cga.state.ct.us/dtsearch_pub_statutes.html
8. Northeastern Regional Training and Medical Consultation Center, Global Tuberculosis Institute, New Jersey Medical School http://globaltb.njms.rutgers.edu/rtmcc.htm
9. CDC. 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). Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5412a1.htm
10. CDC. Revised recommendations for HIV testing of adults, adolescents and pregnant women in health-care settings. MMWR 2006;55(RR-14).
11. Connecticut General Statutes, Section 19a-582a-c. (General consent required for HIV-related testing. Counseling requirements. Exceptions.) Available at: http://search.cga.state.ct.us/dtsearch_pub_statutes.html
12. CDC. Updated guidelines for the use of nucleic acid amplification tests in the diagnosis of tuberculosis. MMWR 2009;58:7–10. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5801a3.htm
13. CDC. Availability of an assay for detecting Mycobacterium tuberculosis, including rifampin-resistant strains, and considerations for its use – United

States, 2013. MMWR 2013;62:821–24. Available at: http://www.cdc.gov/mmwr/pdf/wk/mm6241.pdf
14. American Academy of Pediatrics. Tuberculosis. In: Pickering LK, Baker CJ, Kimberlin DW, Long SS, eds. Red Book: 2012 Report of the Committee on Infectious Diseases. Elk Grove Village, IL: American Academy of Pediatrics 2012: 736–59.
15. Dooley KE, Golub J, Goes FS, Merz WG, Sterling TR. Empiric treatment for community acquired pneumonia with fluoroquinolones, and delays in the treatment of tuberculosis. Clin Infec Dis 2002;34: 1607–12. Available at: http://cid.oxfordjournals.org/content/34/12/1607.full.pdf+html?sid=eb3d5fa9-c2d6-4e6b-af9b-9ae1d3a7e003
16. Devasia RA, et. al. Fluoroquinolone resistance in Mycobacterium tuberculosis: the effect of duration and timing of fluoroquinolone exposure. Am J Respir Crit Care Med 2009;180: 365–70. Available at: http://www.atsjournals.org/doi/pdf/10.1164/rccm.200901-0146OC
17. CDC. Guidelines for the investigation of contacts of persons with infectious tuberculosis: recommendations from the national tuberculosis controllers association and CDC. MMWR 2005;54:(RR-15) Available at: http://www.cdc.gov/mmwr/pdf/rr/rr5415.pdf

List of Appendices

1. TB-86, TB-32 forms
2. TB risk assessment (English and Spanish)
3. NAA guidelines for DPH lab
4. Discharge/treatment plan template
5. TB-5 form
6. DOT log
7. Resources link- CDC website, TB resources, RTMCC

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Print Form

State of CT Department of Public Health
Tuberculosis Control Program
410 Capitol Avenue, MS #11TUB
P.O. Box 340308
Hartford, CT 06134-0308

TUBERCULOSIS SURVEILLANCE REPORT
TB-86 FORM – PAGE 1
COMPLETE FOR ALL TB CASES and TB CASE SUSPECTS

Voice: (860) 509-7722 Fax:: (860) 509-7743

CASE NUMBER: *(For Office Use Only)*

PATIENT'S NAME: (LAST) | (FIRST) | SEX AT BIRTH: ☐ M ☐ F | DATE OF BIRTH: MM DD YYYY

STREET ADDRESS: | CITY: | STATE: | ZIP: | HOME TELEPHONE:

RACE (SELECT ONE OR MORE) :
- ☐ AMERICAN INDIAN/ALASKAN NATIVE
- ☐ ASIAN: _____ SPECIFY
- ☐ BLACK OR AFRICAN AMERICAN
- ☐ WHITE
- ☐ NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER: _____ SPECIFY

ETHNICITY: (SELECT ONE)
- ☐ HISPANIC OR LATINO
- ☐ NOT HISPANIC OR LATINO

ALTERNATE TELEPHONE:

SSN:

COUNTRY OF BIRTH:

MONTH-YEAR ARRIVED IN U.S.:

IMMIGRATION STATUS AT FIRST ENTRY TO THE U.S.:
- ☐ NOT APPLICABLE/U.S. BORN
  - "U.S.-BORN" (OR BORN ABROAD TO A PARENT WHO WAS U.S. CITIZEN)
  - BORN IN 1 OF THE U.S. TERRITORIES, U.S. ISLAND AREAS, OR U.S. OUTLYING AREAS)
- ☐ STUDENT VISA
- ☐ FAMILY/FIANCE VISA
- ☐ OTHER IMMIGRATION STATUS
- ☐ EMPLOYMENT VISA
- ☐ REFUGEE
- ☐ IMMIGRANT VISA
- ☐ TOURIST VISA
- ☐ ASYLEE OR PAROLEE
- ☐ UNKNOWN

SPECIFY ALL SITES OF DISEASE:

PREVIOUS TB? ☐ DISEASE ☐ INFECTION | IF YES, YEAR:

STATUS AT DIAGNOSIS: ☐ ALIVE ☐ DEAD

IF DEAD, WAS TB A CAUSE OF DEATH: ☐ YES ☐ NO

DATE OF DEATH: MM DD YYYY

PEDIATRIC TB PATIENTS (<15 YEARS OLD):

PATIENT LIVED OUTSIDE U.S. FOR >2 MONTHS? ☐ YES ☐ NO

IF YES, SPECIFY COUNTRIES: _____

COUNTRY OF BIRTH FOR PRIMARY GUARDIAN(S), SPECIFY COUNTRIES,:

GUARDIAN 1: _____

GUARDIAN 2: _____

BACTERIOLOGY RESULTS

#	DATE COLLECTED	SPECIMEN TYPE	SMEAR	NUCLEIC ACID AMPLIFICATION TEST	CULTURE
1.	MM DD YYYY	☐ SPUTUM ☐ FLUID _____ TYPE OF FLUID ☐ TISSUE _____ TYPE OF TISSUE	☐ PENDING ☐ POSITIVE ☐ NEGATIVE	☐ POSITIVE ☐ INDETERMINATE ☐ NEGATIVE ☐ NOT DONE	☐ PENDING ☐ (+) MTB ☐ NEGATIVE ☐ ATYPICAL
2.	MM DD YYYY	☐ SPUTUM ☐ FLUID _____ TYPE OF FLUID ☐ TISSUE _____ TYPE OF TISSUE	☐ PENDING ☐ POSITIVE ☐ NEGATIVE	☐ POSITIVE ☐ INDETERMINATE ☐ NEGATIVE ☐ NOT DONE	☐ PENDING ☐ (+) MTB ☐ NEGATIVE ☐ ATYPICAL

INITIAL CHEST RADIOGRAPH:

DATE CXR: MM DD YYYY

- ☐ NORMAL
- ☐ ABNORMAL-CONSISTENT W/ TB DISEASE
- ☐ ABNORMAL-NOT CONSISTENT W/ TB DISEASE
- ☐ NOT DONE

FOR ABNORMAL INITIAL CHEST RADIOGRAPH:
EVIDENCE OF A CAVITY: ☐ YES ☐ NO
EVIDENCE OF MILIARY TB: ☐ YES ☐ NO

OTHER IMAGING STUDY: SELECT ONE: ☐ CXR ☐ CT SCAN ☐ MRI

DATE CXR OR IMAGING STUDY: MM DD YYYY

- ☐ NORMAL
- ☐ ABNORMAL-CONSISTENT W/ TB DISEASE
- ☐ ABNORMAL-NOT CONSISTENT W/ TB DISEASE
- ☐ NOT DONE

FOR ABNORMAL INITIAL CHEST RADIOGRAPH:
EVIDENCE OF A CAVITY: ☐ YES ☐ NO
EVIDENCE OF MILIARY TB: ☐ YES ☐ NO

TUBERCULIN (MANTOUX) SKIN TEST AT TIME OF DIAGNOSIS: (SELECT ONE)

DATE TUBERCULIN SKIN TEST PLACED: MM DD YYYY

- ☐ POSITIVE _____ MILLIMETERS OF INDURATION
- ☐ NEGATIVE
- ☐ NOT DONE

INTERFERON GAMMA RELEASE ASSAY FOR MYCOBACTERIUM TUBERCULOSIS AT DIAGNOSIS (SELECT ONE):

DATE COLLECTED: MM DD YYYY

- ☐ POSITIVE
- ☐ INDETERMINATE
- ☐ NEGATIVE
- ☐ NOT DONE

TEST TYPE: (SPECIFY) _____

INITIAL TREATMENT REGIMEN - PLEASE COMPLETE FOR ALL MEDICATIONS AND DOSAGES:

DATE THERAPY STARTED: MM DD YYYY

EXPECTED DURATION OF TREATMENT:

☐ ISONIAZID	_____ MG	☐ OTHER	_____ MG
☐ RIFAMPIN	_____ MG	☐ OTHER	_____ MG
☐ PYRAZINAMIDE	_____ MG	☐ OTHER	_____ MG
☐ ETHAMBUTOL	_____ MG	☐ OTHER	_____ MG
☐ VITAMIN B6	_____ MG	☐ OTHER	_____ MG
☐ OTHER	_____ MG	☐ OTHER	_____ MG

FACILITY/PHYSICIAN'S NAME: | ADDRESS:

PERSON COMPLETING THIS REPORT: | TELEPHONE: | FAX: | DATE OF THIS REPORT: MM DD YYYY

State of CT Department of Public Health
Tuberculosis Control Program
410 Capitol Avenue, MS #11TUB
P.O. Box 340308
Hartford, CT 06134-0308

TUBERCULOSIS SURVEILLANCE REPORT
TB-86 FORM – PAGE 2
COMPLETE FOR ALL TB CASES and TB CASE SUSPECTS

Voice: (860) 509-7722 Fax:: (860) 509-7743

CASE NUMBER: *(For Office Use Only)*

PATIENT'S NAME: (LAST) (FIRST)

PRIMARY REASON EVALUATED FOR TB: (SELECT ONE)

- ☐ TB SYMPTOMS: ONSET DATE: _____
- ☐ ABNORMAL CHEST RADIOGRAPH- CONSISTENT WITH TB DISEASE
- ☐ TARGETED TESTING
- ☐ CONTACT INVESTIGATION
- ☐ HEALTH CARE WORKER
- ☐ IMMIGRATION MEDICAL EXAM
- ☐ INCIDENTAL LAB REPORT
- ☐ EMPLOYMENT/ ADMINISTRATIVE TESTING

HIV STATUS AT TIME OF DIAGNOSIS:

- ☐ NEGATIVE
- ☐ POSITIVE
- ☐ INDETERMINATE
- ☐ CLIENT REFUSED
- ☐ NOT OFFERED
- ☐ TEST DONE, RESULTS UNKNOWN

DATE: _____

RESIDENT OF CORRECTIONAL FACILITY AT TIME OF DIAGNOSIS:
☐ YES ☐ NO
IF YES, PLEASE SPECIFY FACILITY:
_____
_____
RESIDENT OF CORRECTIONAL FACILITY AT ANY TIME:
☐ YES ☐ NO

DIRECTLY OBSERVED THERAPY:
(RECOMMENDED FOR THOSE WITH SUSPECT/CONFIRMED TB DISEASE) PERFORMED BY:
☐ LOCAL HEALTH DEPT. ☐ STATE HEALTH DEPT. ☐ VNA ☐ OTHER

DISCHARGE/TREATMENT PLAN COMPLETED: ☐ YES ☐ NO
COPIES SENT TO :
☐ LOCAL HEALTH DEPT ☐ STATE HEALTH DEPT

RESIDENT OF LONG TERM CARE FACILITY AT TIME OF DIAGNOSIS:
☐ YES ☐ NO
IF YES, PLEASE SPECIFY FACILITY NAME AND TYPE:
_____
_____

WITHIN THE PAST YEAR HAS THE PATIENT?

BEEN HOMELESS?	☐ YES	☐ NO
USED INJECTION DRUGS?	☐ YES	☐ NO
USED NON-INJECTION DRUGS?	☐ YES	☐ NO
USED EXCESS ALCOHOL?	☐ YES	☐ NO

DOES PATIENT HAVE HEALTH INSURANCE:
☐ YES ☐ NO

PRIMARY OCCUPATION WITHIN THE PAST YEAR (SELECT ONE):

- ☐ HEALTH CARE WORKER
- ☐ CORRECTIONAL FACILITY EMPLOYEE
- ☐ MIGRANT/SEASONAL WORKER
- ☐ NOT SEEKING EMPLOYMENT (E.G. STUDENT, HOMEMAKER, DISABLED)
- ☐ OTHER OCCUPATION
- ☐ RETIRED
- ☐ UNEMPLOYED

NAME AND ADDRESS OF EMPLOYER/SCHOOL:

ADDITIONAL TB RISK FACTORS:

- ☐ CONTACT OF MDR-TB PATIENT (2 YEARS OR LESS)
- ☐ CONTACT OF INFECTIOUS TB PATIENT (2 YEARS OR LESS)
  IF CONTACT TO KNOWN CASE PLEASE GIVE NAME OF SOURCE CASE:
  _____
- ☐ CLASS A/B TB: SPECIFY _____
- ☐ MISSED CONTACT (2 YEARS OR LESS)
- ☐ INCOMPLETE LATENT TB INFECTION THERAPY
- ☐ DIABETES MELLITUS
- ☐ END-STAGE RENAL DISEASE
- ☐ POST-ORGAN TRANSPLANTATION
- ☐ IMMUNOSUPPRESSION (NOT HIV/AIDS)
- ☐ TUMOR NECROSIS FACTOR-ALPHA (TNF-α) ANTAGONIST THERAPY
- ☐ OTHER: SPECIFY _____
- ☐ NONE

MEDICAL PROBLEMS/COMMENTS:

PROVIDER INFORMATION

WAS PATIENT HOSPITALIZED? ☐ YES ☐ NO

DISCHARGE PLAN REQUIRED

CHART NUMBER:

DATE ADMITTED: MM DD YYYY

DATE DISCHARGED: MM DD YYYY

HOSPITAL: TELEPHONE:

ATTENDING PHYSICIAN: BEEPER/PAGER NO.:

PHYSICIAN FOR CONTINUING TB SUPERVISION:

FACILITY: FAX:

ADDRESS: TELEPHONE:

PERSON COMPLETING THIS REPORT: TELEPHONE: DATE OF THIS REPORT: MM DD YYYY

Print Form

State of CT Department of Public Health
Tuberculosis Control Program
410 Capitol Avenue, MS #11TUB
P.O. Box 340308
Hartford, CT 06134-0308

TUBERCULOSIS THERAPY AND FOLLOW-UP CARE REPORT FORM (TB-32)

Voice: (860) 509-7722 Fax: (860) 509-7743

CASE NUMBER: *(For Office Use Only)*

PATIENT'S NAME: (LAST, FIRST, MIDDLE)

DATE OF BIRTH: MM DD YYYY

DATE OF THIS EVALUATION: MM DD YYYY

ADDRESS: (STREET, CITY, STATE, ZIP)

HOME TELEPHONE: ( )

DATE OF NEXT EVALUATION: MM DD YYYY

THIS PATIENT IS BEING TREATED FOR: (CHECK ONE) ☐ ACTIVE TB DISEASE ☐ LATENT TB INFECTION

START DATE: MM DD YYYY

MONTHS OF TREATMENT TO DATE

THERAPY STATUS:

☐ CONTINUING

☐ RESTARTED (COMPLETE RESTART DATE AT RIGHT AND REASON/DATE RX HAD STOPPED BELOW)

IF RESTARTED, DATE : MM DD YYYY

☐ THERAPY STOPPED (COMPLETE REASON/DATE STOPPED AT RIGHT)

DATE THERAPY STOPPED: MM DD YYYY

TOTAL MONTHS OF TREATMENT:

CHECK DRUGS(S) / COMPLETE DOSAGES FOR CURRENT TREATMENT

☐ ISONIAZID _____ MG ☐ OTHER _____ MG (SPECIFY)

☐ RIFAMPIN _____ MG ☐ OTHER _____ MG (SPECIFY)

☐ PYRAZINAMIDE _____ MG ☐ OTHER _____ MG (SPECIFY)

☐ ETHAMBUTOL _____ MG ☐ OTHER _____ MG (SPECIFY)

IF ONE OR MORE DRUGS WERE STOPPED, PLEASE INDICATE WHICH DRUG (S) AND DATE:

PROVIDE REASON THERAPY STOPPED FOR PATIENTS STOPPING TREATMENT. IF PATIENT IS RESTARTING, PROVIDE REASON/DATE RX HAD STOPPED:

☐ COMPLETED THERAPY ☐ OTHER _____ (SPECIFY)

☐ LOST ☐ DIED

DATE OF DEATH: MM DD YYYY

☐ REFUSED

☐ ADVERSE TREATMENT EVENT ☐ DEATH RELATED TO TB DISEASE

☐ NOT TB ☐ DEATH NOT RELATED TO TB DISEASE

☐ MOVED (ENTER NEW ADDRESS BELOW): ☐ DEATH RELATED TO TB THERAPY

_____ NEW ADDRESS

IF MOVED, RECORDS SENT TO NEW PROVIDER/HEALTH DEPARTMENT? ☐ YES ☐ NO

DIRECTLY OBSERVED THERAPY (DOT) (COMPLETE FOR THOSE CONTINUING OR STOPPING TREATMENT):

IS/WAS CLIENT ON DOT ☐ YES, BOTH DOT AND SELF-ADMINISTERED

☐ YES, TOTALLY DOT ☐ NO, TOTALLY SELF ADMINISTERED

IF YES, TO DATE NUMBER OF DOSES _____ NUMBER OF WEEKS _____

REASON THERAPY EXTENDED >12 MONTHS (SELECT ALL THAT APPLY):

☐ RIFAMPIN RESISTANCE ☐ TREATMENT FAILURE

☐ ADVERSE DRUG REACTION ☐ CLINICALLY INDICATED (PLEASE SPECIFY)

☐ NON-ADHERENCE _____ SPECIFY

HIV

ALL TB PATIENTS SHOULD HAVE HIV COUNSELING AND TESTING OFFERED. IF HIV C/T WAS PENDING OR NOT INITIALLY OFFERED, WHAT ARE THE RESULTS NOW ?

☐ POS (+) ☐ STILL PENDING ☐ NEG (-) ☐ REFUSED

DATE OF TEST: MM DD YYYY

ADDITIONAL TESTING

DATE TESTED: MM DD YYYY

☐ TUBERCULIN SKIN TEST ☐ INTERFERON RELEASE GAMMA ASSAY

☐ POSITIVE ☐ INDETERMINATE ☐ NEGATIVE ☐ PENDING

INDURATION SIZE: (IF 0 ENTER 0) MM

COMPARATIVE CXR/CT SCAN

DATE OF XRAY/OTHER: MM DD YYYY

☐ CHEST XRAY ☐ CT SCAN ☐ OTHER _____

RESULTS: ☐ IMPROVING ☐ STABLE ☐ WORSENING

FOLLOW UP LAB

SPUTUM CULTURE CONVERSION DOCUMENTED?
IF YES, ENTER DATE SPECIMEN COLLECTED FOR FIRST CONSISTENTLY NEGATIVE SPUTUM CULTURE: MM DD YYYY

☐ YES ☐ NO

IF NO, ENTER REASON FOR NOT DOCUMENTING SPUTUM CULTURE CONVERSION (SELECT ONE)

☐ NO FOLLOW-UP SPUTUM DESPITE INDUCTION ☐ PATIENT LOST ☐ DIED

☐ NO FOLLOW-UP SPUTUM AND NO INDUCTION ☐ PATIENT REFUSED ☐ OTHER (SPECIFY) _____

RISK FACTORS

AT TIME OF DIAGNOSIS WAS CLIENT KNOWN TO BE: (CHECK ALL THAT APPLY)

☐ USING INJECTION DRUGS ☐ USING NON-INJECTING DRUGS ☐ USING EXCESS ALCOHOL ☐ HOMELESS

MEDICAL PROBLEMS/ COMMENTS

DID CLIENT HAVE ADDITIONAL HOSPITALIZATIONS? ☐ YES ☐ NO

MEDICAL RECORD NUMBER: _____

REASON FOR HOSPITALIZATION/MEDICAL PROBLEMS/COMMENTS:

PROVIDER INFORMATION

CURRENT HEALTH CARE PROVIDER: (NAME, ADDRESS)

TELEPHONE: ( )

FAX: ( )

NAME OF PERSON COMPLETING THIS REPORT:

TELEPHONE: ( )

DATE OF THIS REPORT: MM DD YYYY

MAIL: WHITE TO STATE HEALTH DEPARTMENT, YELLOW TO LOCAL HEALTH DEPARTMENT, PINK TO PATIENT'S FILE

REVISED: 12/2008

Tuberculosis Test Interview and Consent

NAME: Last_____First_____

ADDRESS _____ **TOWN** _____ **PHONE** _____

Date of Birth:_____/_____/_____ **E-mail** _____

Country of Birth:_____ **If not US, year of entry**:_____

Have you traveled outside the US during the past 2 years? Yes □ No □

Where? _____ How long? _____

Usual doctor or place for care when you are sick? _____

TODAY:	Date: _____		Date: _____	
Cough (Unexplained or change from usual cough)	Y	N	Y	N
Weight loss (Unexplained or with loss of appetite)	Y	N	Y	N
Fever (Unexplained)	Y	N	Y	N
Increased fatigue	Y	N	Y	N
Chest pain	Y	N	Y	N
Shortness of breath	Y	N	Y	N
Night sweats (Unexplained)	Y	N	Y	N
Do you have any health problems? Please list _____	Y	N	Y	N
Are you taking medicine regularly? Please list _____	Y	N	Y	N
Have you had any immunizations in past month?	Y	N	Y	N

Have you ever:

Had a skin test (PPD) or blood test for tuberculosis? When? _____	Y	N	Y	N
Had a mark on your arm 2 or 3 days after the skin test?	Y	N	Y	N
Been sent for a chest x-ray after the skin or blood test?	Y	N	Y	N
Been told you have tuberculosis?	Y	N	Y	N
Spent time with a person who had active TB?	Y	N	Y	N
Had BCG vaccine?	Y	N	Y	N
Taken medicine for tuberculosis (TB Infection or active TB disease)	Y	N	Y	N
What medicines did you take?				
How long did you take the medicine?				

I request and give permission for tuberculosis testing:

1st Signature:_____**Date:**_____

2nd Signature:_____**Date:**_____

FOR OFFICE USE ONLY:

1st Test: □ TST □ T-Spot □ QFT-GIT

Manufacturer: _____ Exp. Date: _____ Lot Number (if applicable): _____

Date of Test:_____ Time: _____ By:_____

Result: _____ Date:_____ For TST: Arm Left □ Right □

2nd Test: □ TST □ T-Spot □ QFT-GIT

Manufacturer: _____ Exp. Date: _____ Lot Number (if applicable): _____

Date of Test:_____ Time: _____ By:_____

Result: _____ Date:_____ For TST: Arm Left □ Right □

CXR: Yes □ No □ Where: _____ Date:_____

Consentimiento y Entrevista de Prueba de Tuberculosis

APELLIDO_____**PRIMER NOMBRE**_____

DIRECCION _____ **PUEBLO** _____ **TELEFONO** _____

Fecha de Nacimiento: _____/_____/_____ **E-mail** _____

Pais de Nacimiento: _____ **Si no en EU, que año entro a los Estados**_____

Has viajado fuera de los Estados Unidos durante los últimos dos años? Si □ No □
Ha donde? _____ Por cuanto tanto tiempo? _____
Médico habitual o lugar de atención cuando estás enfermo? _____

Hoy:	Fecha: _____		Fecha: _____	
Tos (inexplicada)	Si	No	Si	No
Pérdida de peso (inexplicada)	Si	No	Si	No
Fiebre (inexplicada)	Si	No	Si	No
Aumento de la fatiga	Si	No	Si	No
Dolor en el pecho	Si	No	Si	No
Dificultad para respirar	Si	No	Si	No
Sudores de noche (inexplicada)	Si	No	Si	No
Tiene algún problema de salud? Por favor escriba _____	Si	No	Si	No
Está tomando alguna medicina regularmente? Por favor escriba _____	Si	No	Si	No
Ha tenido alguna vacuna en el último mes?	Si	No	Si	No

Alguna vez:

Tenía una prueba de la piel (PPD) o prueba de sangre para la tuberculosis? Cuando? _____	Si	No	Si	No
Tenía una marca en el brazo 2 o 3 dias después de la prueba de piel?	Si	No	Si	No
Has ido para una radiografía de pecho después de la prueba de la piel o de sangre?	Si	No	Si	No
Te han dicho que tiene tuberculosis?	Si	No	Si	No
Has pasó tiempo con una persona que tenía tuberculosis activa?	Si	No	Si	No
Tenía la vacuna BCG?	Si	No	Si	No
Has tomado medicamentos para la tuberculosis (infección de TB o enfermedad de TB activa)	Si	No	Si	No
Qué medicamentos toma?				
Cuánto tiempo llevas tomando medicina?				

Yo pido y doy el permiso para prueba de tuberculosis:

1st Firma: _____**Fecha:**_____

2nd Firma:_____**Fecha:**_____

FOR OFFICE USE ONLY:

1st Test: □ TST □ T-Spot □ QFT-GIT

Manufacturer: _____ Exp. Date: _____ Lot Number (if applicable): _____

Date of Test:_____ Time: _____ By:_____

Result: _____ Date:_____ For TST: Arm Left □ Right □

2nd Test: □ TST □ T-Spot □ QFT-GIT

Manufacturer: _____ Exp. Date: _____ Lot Number (if applicable): _____

Date of Test:_____ Time: _____ By:_____

Result: _____ Date:_____ For TST: Arm Left □ Right □

CXR: Yes □ No □ Where: _____ Date:_____

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Guidelines for Nucleic Acid Amplification Testing for *M. tuberculosis* at the Connecticut Department of Public Health Laboratory

Nucleic acid amplification (NAA) testing for *M. tuberculosis* allows for the rapid identification of tuberculosis (TB) through the detection of *Mycobacterium tuberculosis* complex (MTBC) genetic material directly in clinical specimens. While MTBC may take weeks to grow when using conventional culture techniques, NAA testing results are generally available within 24–48 hours after the specimen is received in the laboratory.

In January 2009, the Centers for Disease Control and Prevention (CDC) made recommendations on the use of NAA tests for the diagnosis of TB (1).

Two main highlights from those recommendations include the following:

- NAA testing should become standard practice for moderate to high TB suspects.

- NAA testing should be performed on at least one respiratory specimen from each patient with signs/symptoms of pulmonary TB but for whom the diagnosis has not been established AND for whom the test result would change case management or TB control activities.

NAA testing for MTBC is performed at the Connecticut Department of Public Health (CTDPH) Laboratory using the Cepheid® Xpert MTB/RIF test. The Food and Drug Administration has permitted marketing of the Xpert MTB/RIF assay and the CTDPH laboratory has verified its performance specifications for the detection of MTBC DNA in sputum, bronchoalveolar lavage (BAL) and bronchial wash specimens that are either acid-fast bacilli (AFB) smear positive or negative and, in these specimens where MTBC is detected, for the detection of the rifampin (RIF)-resistance associated mutations of the *rpoB* gene.

In October 2013, the Centers for Disease Control and Prevention made recommendations for incorporation of the Xpert MTB/RIF assay into tuberculosis diagnostic algorithms (2).

In addition to a summary of the use of NAA for the detection of MTBC, the document includes information on practical considerations for use of the Xpert MTB/RIF assay for detection of mutations associated with rifampin resistance and considerations for infection control.

Telephone Device for the Deaf: (860) 509-7191
410 Capitol Avenue
P.O. Box 340308 Hartford, CT 06134
Bus: 860.509.7101 Fax: 860.509.7111

Intended Use

- The Xpert MTB/RIF test is intended as an aid in the diagnosis of pulmonary tuberculosis when used in conjunction with clinical and other laboratory findings. It is intended for use with specimens from patients for whom there is clinical suspicion of tuberculosis and at the time of specimen collection have received no antituberculosis therapy or less than 3 days of therapy. NAA testing should not be ordered routinely when clinical suspicion is low, because the positive predictive value of NAA tests (the likelihood that the patient has tuberculosis when the test is positive) is low for such cases.

- NAA testing is not indicated for use in determining bacteriologic cure or to monitor response to antituberculous therapy.

CTDPH Laboratory Specimen Submission Policy & Protocol for NAA Testing

- NAA testing will only be performed on raw unprocessed sputum, bronchoalveolar lavage (BAL) and bronchial wash specimens.

- NAA testing will be automatically performed on the first specimen received for each patient found to be AFB SMEAR POSITIVE by the CTDPH laboratory.

- NAA testing will be performed on specimens found to be AFB SMEAR NEGATIVE by the CTDPH laboratory ONLY ON REQUEST by the submitter or other authorized provider. To request that NAA testing be performed, regardless of AFB smear results, include a *Mycobacterium tuberculosis* complex Nucleic Acid Amplification (NAA) Test Requisition, along with a Clinical Test Requisition [Select AFB Clinical Specimen (Mycobacteria Smear & Culture)] when submitting the specimen. NAA test requests received later than 7 calendar days after receipt of the specimen in the laboratory will not be accepted.

- When requested at submission, NAA testing will generally be performed within two business days of specimen receipt in the laboratory.

- Routine mycobacteria smear and culture testing will always be performed on specimens received for NAA testing.

- The Xpert MTB/RIF Assay does not provide confirmation of rifampin susceptibility. For specimens where RIF resistance is detected, the specimen will be submitted to the CDC for testing to confirm the presence of RIF-resistance associated mutations of the *rpoB* gene and to perform conventional drug susceptibility testing.

- A percentage of sputum specimens (3%--7%) may contain inhibitors that prevent or reduce amplification of the NAA test. Each Xpert MTB/RIF test includes an internal inhibition control to determine if the test specimen contains substances that are inhibiting a positive test when MTBC is present in the specimen. If after repeat testing inhibitors are detected in the specimen, the presence or absence of MTBC DNA

cannot be determined and the test is reported as invalid (See Interpretation of Test Results).

- Results from NAA testing will be reported to the submitter and other authorized providers by phone and fax/mail.

Interpretation of Test Results

Detection of MTBC

The Xpert MTB/RIF assay does not differentiate between the species of the MTB-complex (i.e., *M. tuberculosis*, *M. bovis*, *M. bovis BCG*, *M. africanum*, *M. canettii*, *M. microti*, *M. caprae*, *M. pinnipedi*, *M. mungi*, and *M. orygis*).

NAA test results should be interpreted in conjunction with the AFB smear results (1).

- If the **NAA result is positive and the AFB smear result is positive**, presume the patient has TB and begin anti-TB treatment while awaiting culture results. The positive predictive value of FDA-approved NAA tests for TB is >95% in AFB smear-positive cases.

- If the **NAA result is positive and the AFB smear result is negative**, use clinical judgment whether to begin anti-TB treatment while awaiting culture results and determine if additional diagnostic testing is needed. Consider testing an additional specimen using NAA to confirm the initial NAA result. A patient can be presumed to have TB, pending culture results, if two or more specimens are NAA positive.

- If the **NAA result is negative and the AFB smear result is positive,** use clinical judgment to determine whether to begin anti-TB treatment while awaiting culture results and determine if additional diagnostic testing is needed. A patient can be presumed to have an infection with nontuberculous mycobacteria if a second specimen is smear positive and NAA negative.

- If the **NAA result is negative and the AFB smear result is negative**, use clinical judgment to determine whether to begin anti-TB treatment while awaiting results of culture and additional diagnostic tests. Currently available NAA tests are not sufficiently sensitive (detecting 50–80% of AFB smear-negative, culture-positive pulmonary TB cases) to exclude the diagnosis of TB in AFB smear-negative patients suspected to have TB.
- If **inhibitors are detected**, the presence or absence of MTBC DNA in the specimen cannot be determined. Another sample can be submitted for NAA testing if indicated. Use clinical judgment to determine whether to begin anti-TB treatment while awaiting results of culture and additional diagnostic testing.

Detection of Rifampin-resistance Associated Mutations

- The Xpert MTB/RIF assay provides a RIF result ONLY when MTBC DNA is DETECTED

- If RIF Resistance is DETECTED, a mutation in the *rpoB* gene is detected indicating possible RIF resistance. Additional confirmatory testing will be performed (see CTDPH Laboratory Specimen Submission Policy & Protocol for NAA Testing).

- If RIF Resistance is NOT DETECTED, a mutation in the *rpoB* gene has not been detected. The MTBC detected is probably RIF susceptible.

- If RIF Resistance is INDETERMINATE, the presence of a mutation in the *rpoB* gene cannot be accurately determined.

For additional questions, contact the DPH Tuberculosis Control Program at (860) 509–7722 or the DPH Public Health Laboratory at (860) 509–8573.

References

1. Centers for Disease Control and Prevention. Updated Guidelines for the Use of Nucleic Acid Amplification Tests in the Diagnosis of Tuberculosis. MMWR, 2009; 58: 7–10.
   Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5801a3.htm.

2. Centers for Disease Control and Prevention. Availability of an Assay for Detecting *Mycobacterium tuberculosis*, Including Rifampin-Resistant Strains, and Considerations for Its Use — United States, 2013. MMWR 2013; 62: 821–824.
   http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6241a1.htm?s_cid=mm6241a1_e

Telephone Device for the Deaf: (860) 509-7191
410 Capitol Avenue
P.O. Box 340308 Hartford, CT 06134
Bus: 860.509.7101 Fax: 860.509.7111

Mycobacterium tuberculosis complex
Nucleic Acid Amplification (NAA) Test Requisition

Katherine A. Kelley State Public Health Laboratory
395 West Street, Rocky Hill, CT 06067
Phone: 860-920-6500 / Fax: 860-920-6718

For each clinical respiratory specimen where NAA testing is requested, complete this form, along with a Clinical Test Requisition, when submitting the specimen to the laboratory. Routine mycobacteria smear & culture will also be performed.

NAA testing will automatically be done on the first patient specimen submitted for routine mycobacteria smear & culture found to be **Acid-fast Bacilli (AFB) smear positive** by the CTDPH laboratory (the *M. tuberculosis* complex NAA Test Requisition is not required).

NAA Testing should **NOT** be ordered:

- When clinical suspicion is low (the positive predictive value of the test, the likelihood that the patient has tuberculosis when the test is positive, is low in such cases).
- To determine bacteriologic cure or to monitor response to antituberculous therapy

CTDPH TB Laboratory (860-509-8573) / **CTDPH TB Control Program** (860-509-7722)

Submission Requirements

☐ Clinical respiratory specimens (raw unprocessed): sputum, BAL, bronchial wash.

☐ Patient did not receive antituberculosis therapy, or received less than 3 days of therapy at the time of specimen collection.

☐ Specimens must be received by the laboratory within 10 days of collection.

☐ Test requests must be received within 7 calendar days of specimen receipt in the laboratory.

Submitter Information

Authorized Submitter's Name: _____

Phone : _____ Fax: _____

Patient Information

Name: _____

Patient /Specimen ID #: _____ Date of Birth: _____

Specimen Information

Type / Source: ☐ Sputum ☐ Bronchoalveolar Lavage (BAL) ☐ Bronchial Wash

Date Collected: _____Other Information_____

TUBERCULOSIS PATIENT MANAGEMENT PLAN

FAX in anticipation of discharge:

1. *Health Department for the client's town of residence*
2. *State of CT, TB Control Program, 860-509-7743*

CLIENT NAME_____ DOB _____ RECORD NO. _____

ADDRESS_____ PHONE _____ ADMIT DATE _____ D/C DATE _____

CLIENT'S EMERGENCY CONTACT_____ PHONE_____

ADDRESS_____

The following TB management plan for the client named above has been discussed with the undersigned care providers and client. The care providers agree that this plan is consistent with public health regulation 19a-504c and public act 95-138, requiring a written discharge plan and that plan provide the best medical and public health care available for this client.

This case was reported to the local and state health departments by _____ Date_____

Follow-up TB care physician_____ Phone _____ Appointment date _____

Drugs and Dosages Prescribed: □ INH _____ □ RIF _____ □ PZA _____ □ EMB _____

□ SM _____ □ B-6 _____ □ Other _____ □ Other _____

To be ingested: □ DAILY □ 2x WEEKLY □ 3x WEEKLY □ OTHER _____

(NOTE: Generally, all patients should be on 4 anti-TB drugs until susceptibility results are available.)

Supervision: □ Directly observed (DOT) *Current ATS standard of care* □ self-administered □ Other _____

DOT Worker(s) will be: _____ (weekdays) Phone _____

_____ (weekends) Phone _____

Site(s) and time(s) for Directly Observed Therapy (DOT):

at: _____ time: _____ on weekdays

if necessary, at: _____ time: _____ on weekends

Local/State Public Health Case Manager is _____ Phone: _____

TB specific education and counseling provided by _____ Date_____

Obstacles to therapy adherence identified to date: □ None

□ Homelessness □ Physical limitation □ Substance abuse _____

□ Cognitive limitation □ Mental status □ Other _____

Proposed interventions for obstacles identified above: _____

Referral(s) were/will be made on _____ (date):

Agency/Person: _____ Phone _____

Agency/Person: _____ Phone _____

The following individuals have been notified and approve of above treatment plan:

Physician: _____ Date: _____

Client: _____ Date: _____

Local Health Director or Designee: _____ Date: _____

Print Form

STATE OF CT TUBERCULOSIS CONTROL PROGRAM - CONTACT INVESTIGATION WORKSHEET (TB-5)

410 Capitol Avenue, MS #11TUB, P.O. Box 340308, Hartford, CT 06134-0308 Voice: (860) 509-7722 Fax:: (860) 509-7743

TUBERCULOSIS EPIDEMIOLOGIST:	STATE CASE #	INTERVIEWER: ______
CASE INFORMATION: NAME (LAST,FIRST, MI)______ DOB:______ SITE OF DISEASE:______ INFECTIOUS PERIOD: START DATE ___/___/___ END DATE___/___/___		FACILITY: ______ DATE INTERVIEW INITIATED:______ PHONE:______

EXPOSURE SETTING CODES: [01] HOUSEHOLD [02] NON-HOUSEHOLD/FRIENDS/RELATIVES [03] RESTAURANT/BAR [04] CORRECTIONAL FACILITY [05] SCHOOL/DAY CARE [06] NURSING HOME [07] SHELTER [08] HOSPITAL/ACUTE CARE [09] WORKSITE [10] UNKNOWN [11] OTHER SPECIFY:______	RISK FACTOR CODES FOR CONTACTS: [A] AGE < 5 [B] IMMUNOCOMPROMISED [C] CXR CONSISTENT W/ INACTIVE TB [D] OTHER MEDICAL RISK	REPORT AND DATE: DATE SENT: ___/___/___ SENT TO: ______ DATE FINAL REPORT REC'D: ___/___/___

CONTACT INFORMATION: FIRST NAME:______ LAST NAME:______ ADDRESS:______ ______ PHONE:______ DOB: ___/___/___ GENDER:______ RACE:______ ETHNICITY:______	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/___ TST INDURATION: ______MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/___ TST INDURATION: ______ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/___ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/___ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/___ DATE STOPPED: ___/___/___ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:______ ADDRESS:______ ______ ______ PHONE:______
CONTACT INFORMATION: FIRST NAME:______ LAST NAME:______ ADDRESS:______ ______ PHONE:______ DOB: ___/___/___ GENDER:______ RACE:______ ETHNICITY:______	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/___ TST INDURATION: ______MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/___ TST INDURATION: ______ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/___ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/___ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/___ DATE STOPPED: ___/___/___ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:______ ADDRESS:______ ______ ______ PHONE:______
CONTACT INFORMATION: FIRST NAME:______ LAST NAME:______ ADDRESS:______ ______ PHONE:______ DOB: ___/___/___ GENDER:______ RACE:______ ETHNICITY:______	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/___ TST INDURATION: ______MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/___ TST INDURATION: ______ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/___ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/___ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/___ DATE STOPPED: ___/___/___ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:______ ADDRESS:______ ______ ______ PHONE:______

STATE OF CT TUBERCULOSIS CONTROL PROGRAM - CONTACT INVESTIGATION WORKSHEET(TB-5) -PAGE 2

410 Capitol Avenue, MS #11TUB, P.O. Box 340308, Hartford, CT 06134-0308 Voice: (860) 509-7722 Fax:: (860) 509-7743

CASE INFORMATION: DOB: STATE CASE #
NAME (LAST,FIRST, MI)

CONTACT INFORMATION: FIRST NAME:________ LAST NAME:________ ADDRESS:________ ________ PHONE:________ DOB: ___/___/____ GENDER:______ RACE:________ ETHNICITY:________	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/____ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/____ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/____ DATE STOPPED: ___/___/____ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:________ ADDRESS:________ ________ ________ PHONE:________
CONTACT INFORMATION: FIRST NAME:________ LAST NAME:________ ADDRESS:________ ________ PHONE:________ DOB: ___/___/____ GENDER:______ RACE:________ ETHNICITY:________	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/____ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/____ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/____ DATE STOPPED: ___/___/____ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:________ ADDRESS:________ ________ ________ PHONE:________
CONTACT INFORMATION: FIRST NAME:________ LAST NAME:________ ADDRESS:________ ________ PHONE:________ DOB: ___/___/____ GENDER:______ RACE:________ ETHNICITY:________	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/____ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/____ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/____ DATE STOPPED: ___/___/____ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:________ ADDRESS:________ ________ ________ PHONE:________
CONTACT INFORMATION: FIRST NAME:________ LAST NAME:________ ADDRESS:________ ________ PHONE:________ DOB: ___/___/____ GENDER:______ RACE:________ ETHNICITY:________	EXPOSURE CODES: RISK FACTOR CODES:	<8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	>8 WEEKS TST/QFT ☐ TST ☐ QFT DATE: ___/___/____ TST INDURATION: ________ MM QFT RESULT: ☐ POSITIVE ☐ NEGATIVE ☐ INDETERMINATE	CXR DATE:___/___/____ ☐ NORMAL ☐ ABNORMAL-CONSISTENT WITH INACTIVE TB ☐ ABNORMAL-CONSISTENT WITH TB DISEASE HIV TEST DATE: ___/___/____ RESULTS: ☐ POS ☐ NEG ☐ INDETERMINATE	TREATMENT DATE STARTED: ___/___/____ DATE STOPPED: ___/___/____ REGIMEN: ☐ INH ☐ RIF ☐ OTHER______ ☐ NO TREATMENT REASON NOT TREATED:	PROVIDER NAME:________ ADDRESS:________ ________ ________ PHONE:________

REVISED 1/2010

MONTHLY DIRECTLY OBSERVED THERAPY LOG

Month: ______________

Patient Name:	DOB:	Case Number:	Therapy Start Date:
Home Address:		Phone:	Treatment Prescribed: ☐ INH ______ ☐ EMB ______ ☐ RIF ______ ☐ B6 ______ ☐ PZA ______ ☐ Other ______
DOT Site (if different from home address):			
Other Locating Information:			
Physician of Record:		Phone:	Freq: ☐ Daily ☐ 2x Wkly ☐ 3x Wkly

Date	Enter Dosage For Each					Other	
mm/dd/yy	INH	RIF	PZA	EMB	PY/B6		Worker

Symptoms To Be Reviewed Daily With Patient

- Urine Darker Color Than Usual
- Stools Lighter In Color Than Usual
- Yellow Skin or Eyeballs
- Nausea / Vomiting More Than 2 Days
- Elevated Temp. For More Than 3 Days Without a Cold or Other Clear Reason
- Sustained Loss of Appetite
- Numbness or Tingling in Extremities

Comments (Include the date, description of problem, resolution plan and signature):

Tuberculosis Educational Resources

Connecticut Department of Public Health Tuberculosis Control Program: http://www.ct.gov/dph/tb
Links to DPH policies, forms, statistics and other resources

Centers for Disease Control and Prevention, Division of Tuberculosis Elimination: http://www.cdc.gov/tb
National guidelines/recommendations and statistics

The New Jersey Medical School Global Tuberculosis Institute at Rutgers, The State University of New Jersey: http://web.njms.rutgers.edu/ntbcweb/#
Part of CDC's network of TB Regional Training and Consultation Centers
Educational resources as well as online (e.g. webinar) and in person training opportunities

Find TB Resources: http://findtbresources.org
Online depository of TB educational resources from local, state, federal and international groups. Excellent for finding patient resources in multiple languages.