



Guidelines for the Discharge and Transfer of Patients Suspected of Having or Diagnosed with Tuberculosis

The California Health and Safety Code, Division 105, Part 5, Chapter 1, Section 121361 requires that health facilities submit to the local health officer a written treatment plan for persons known to have or suspected of having tuberculosis (TB) disease. Persons with or suspected of TB disease may be discharged from a health facility only after the local health officer, or his/her designee, approves the written treatment plan. When prior notification would jeopardize the person's health or the public safety, the notification and treatment plan shall be submitted within 24 hours of discharge or transfer to another healthcare facility. The following are guidelines for determining the appropriateness of the treatment plan.

This document supersedes the 2019 Los Angeles County Tuberculosis Control Program Guidelines for Discharge and Transfer of Tuberculosis Patients and Suspects. The update addresses the interpretation of the negative nucleic acid amplification tests in the context of at least one paired sputum acid-fast bacilli AFB smear positive specimen (page 3).

General Considerations

While preventing the transmission of tuberculosis from infectious patients is a first-tier priority for public health and safety, it is generally not necessary to keep all patients hospitalized until 3 consecutive sputum acid-fast bacilli (AFB) smears are negative. Other factors need to be taken into consideration include: the likelihood that the patient will adhere to treatment and comply with isolation; the likelihood of transmission to others (disease severity); and the likelihood and severity of disease in those who may become infected (immune status).

Infectiousness is related to several clinical characteristics: pulmonary or laryngeal involvement; symptoms of cough or sneeze; positive sputum AFB smear; cavitation on chest x-ray; length of appropriate therapy; and ability and willingness to cover the mouth when coughing or sneezing. In general, a person with TB is likely to be infectious if cough is present, sputum AFB smears are positive, and therapy either has just started or is not eliciting a clinical response. However, the risk of transmission from a person with TB on appropriate therapy showing clinical improvement (reduction of cough, fever, and AFB on smear; and improvement in chest x-ray) is substantially reduced after 2 weeks on therapy.

Therefore, in a collaborative effort with our public and private hospital facilities to coordinate an appropriate and timely discharge, the following updated guidelines are provided as our Los Angeles County Department of Public Health criteria for discharge. These guidelines represent a basic framework for controlling the transmission of TB in LA County. **Special situations will be reviewed by the TB Control Program on a case-by-case basis for discharge criteria.**

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Suspected or Confirmed Laryngeal or Pulmonary Tuberculosis with Positive Sputum AFB Smears

- 1) Criteria for discharge to home, with no high-risk individualsⁱ in the home:
 - a) Appropriate multi-drug TB treatment has been initiated that is consistent with California Department of Public Health/California Tuberculosis Controllers Association (CDPH/CTCA) Guidelines for the Treatment of Tuberculosis and Tuberculosis Infection for California.
 - b) A home evaluation performed by a Public Health Nurse (PHN) is completed to assess the home environment and identify high-risk individuals.
 - c) The patient understands and can comply with home isolation until the Public Health Clinician overseeing the patient has determined that he/she is no longer infectious.
 - d) There is a documented plan (Request for Hospital Discharge/Transfer Approval Form H-804) for continued TB care either by private physician, the Department of Public Health, or both.

- 2) Criteria for discharge to home with high-risk individualsⁱ in the home:
 - a) The patient has completed and tolerated at least 14 days of appropriate multi-drug TB treatment that is consistent with CDPH/CTCA Guidelines for the Treatment of Tuberculosis and Tuberculosis Infection and exhibits clinical improvement (e.g., reduction in fever or cough).
 - b) A home evaluation performed by a Public Health Nurse (PHN) is completed to assess the home environment and identify high-risk individuals.
 - c) All previously exposed high-risk individuals, including children younger than 5 years of age, are on appropriate TB infection treatment or window period treatment for presumed TB infection.
 - i) If a previously unexposed high-risk individual enters the household while the patient is hospitalized, then patient must have three (3) consecutive AFB smear negative sputum specimens.
 - d) The patient understands and can comply with home isolation until the Public Health Clinician overseeing the patient has determined that he/she is no longer infectious.
 - e) The patient will continue appropriate multi-drug TB therapy, even if another pulmonary process is diagnosed, pending negative final culture results from at least three (3) sputum specimens.
 - f) There is a documented plan (Request for Hospital Discharge Approval/Transfer Form H-804) for continued TB care either by private physician, the Department of Public Health, or both.

- 3) Criteria for discharge into a high-risk settingⁱⁱ:
 - a) The patient has three (3) consecutive AFB smear-negative respiratory specimens collected at least 8 hours apart, one of which should be induced, early morning, or obtained by bronchoscopy.
 - b) Completed and tolerated at least 14 days of appropriate multi-drug, anti-tuberculosis therapy that is consistent with CDPH/CTCA Guidelines for the Treatment of Tuberculosis and Tuberculosis Infection and exhibit clinical improvement (e.g., reduction in fever and cough).
 - c) The patient's ability to ambulate and perform all activities of daily living should be appropriate for the discharge setting
 - i) If patient requires TB housing, the patient must be able to live independently.
 - ii) If patient requires transportation by Public Health Clinic Services to and from clinic appointments, patient must be able to enter and exit a passenger vehicle independently.

- d) Have continued close medical supervision, including directly observed therapy (DOT)
- e) Continue appropriate multi-drug TB therapy, even if another pulmonary process is diagnosed, pending final culture results are negative for *M. tuberculosis* from at least three (3) sputum specimens.
- f) There is a documented plan (Request for Hospital Discharge/Transfer Approval Form H-804) for continued TB care either by private physician or the Department of Public Health.

4) Interpretation of negative nucleic acid amplification tests (NAATs), including Xpert:

A patient suspected of pulmonary TB disease can be presumed to have infection with non-tuberculous mycobacteria (NTM) if there are at least two respiratory samples that are both NAAT negative for MTB and one of those samples is at least 1+ or greater in AFB smear grade. Negative AFB smear specimens alone have produced falsely negative NAAT results. When interpreting negative NAAT results from exclusively AFB smear negative specimens, a patient may be discharged into a high-risk setting after consultation and approval of the TB Control Program. NAAT testing should be performed within 7 days of multi-drug TB chemotherapy as prior TB treatment may decrease the sensitivity of the NAAT. Add-on NAATs to existing specimens also have lower sensitivity. Special situations will be reviewed by the TB Control Program on a case-by-case basis for discharge criteria.

Suspected or Confirmed Pulmonary Tuberculosis with Negative AFB Sputum Smears

Criteria for discharge:

- a) Appropriate multi-drug TB treatment has been initiated that is consistent with CDPH/CTCA Guidelines for the Treatment of Tuberculosis and Tuberculosis Infection for California (at least one dose taken and tolerated).
- b) If being discharged to a high-risk setting, the patient has completed at least five (5) days of appropriate multi-drug anti-TB therapy that is consistent with CDPH/CTCA Guidelines for the Treatment of Tuberculosis and Tuberculosis Infection.
- c) There is a documented plan (Request for Hospital Discharge/Transfer Approval Form H-804) for continued TB care either by private physician or the Department of Public Health.

Known Multi-Drug Resistant (MDR) -TB Case

Criteria for discharge:

- a) Have three (3) consecutive AFB smear negative sputum specimens collected on separate days, one of which should be induced, an early morning specimen, or bronchoalveolar lavage (BAL), and no subsequent sputum specimen is smear positive.
- b) At least 14 daily doses of MDR-TB treatment are taken and tolerated.
- c) Demonstration of clinical improvement.
- d) If being discharged to a high-risk settingⁱⁱ, the patient meets the above criteria AND has at least two (2) consecutive negative sputum cultures without a subsequent positive culture.
- e) There is a documented plan (Request for Hospital Discharge/Transfer Approval Form H-804) for continued TB care either by private physician or the Department of Public Health.

Extra-pulmonary Tuberculosis Suspect

Criteria for discharge:

- a) There has been an adequate work-up initiated which includes an evaluation of current symptoms, chest x-ray, and sputum collection for AFB smear, culture and MTB PCR (if abnormal CXR or immunocompromised) to exclude a concurrent pulmonary disease.
- b) Multi-drug TB treatment has been initiated that is consistent with CDPH/CTCA Guidelines for the Treatment of Tuberculosis and Tuberculosis Infection for California (at least one dose taken and tolerated).
- c) There is a documented plan (Request for Hospital Discharge/Transfer Approval Form H-804) for continued TB care either by private physician or the Department of Public Health.

ⁱ **High-risk individuals:** Children younger than 5 years old, persons with HIV infection and persons on immunosuppressive therapy such as high dose steroids, TNF-a inhibitors, or cancer chemotherapy.

ⁱⁱ **High-risk setting:** e.g., health care facilities, nursing home, congregate living site for persons infected with Human Immunodeficiency Virus (HIV), drug treatment residential facilities, homeless shelter, jail, board and care, other congregate living sites, public living accommodations, including single room occupancy hotels, if air is shared in common areas or through the building ventilation system, and living settings that also house high-risk individuals.