



Kern County Public Health

Your Partner in TB Care

KERN
COUNTY
PUBLIC HEALTH

Kimberly Hernandez, MPH, CPH
Division Director of Health Services
Tuberculosis Healthcare Provider Symposium
September 17, 2026



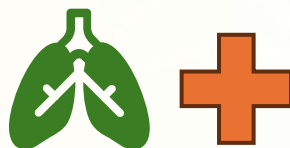
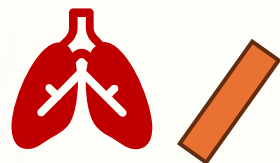
Ruling Out TB

Assessment Element	Result	
TB Risk	Risks Identified	No Risks Identified
Symptoms	Present	Absent
IGRA	Positive	Negative
Chest X-ray	Abnormal	Within Normal Limits
Sputum	Smear Positive	Smear Negative
	NAAT Positive	NAAT Negative
	Culture Positive	Culture Negative

Ruling Out TB

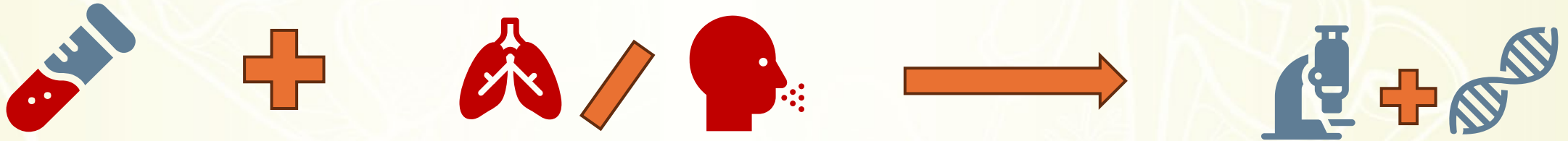
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IGRA	Positive	Negative
Chest X-ray	Abnormal	Within Normal Limits
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	NAAT Positive	NAAT Negative
	Culture Positive	Culture Negative

Ruling Out TB



LTBI

Ruling Out TB

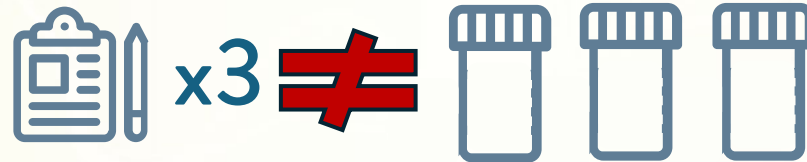
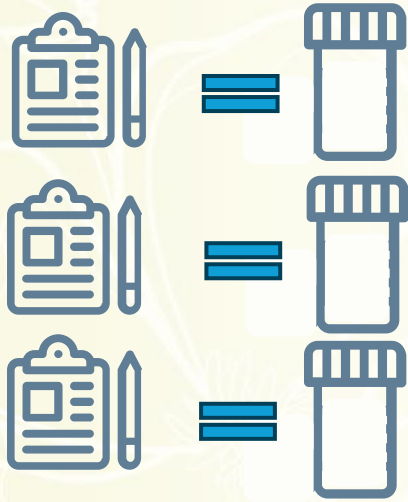


- NAAT/PCR testing recommended for at least one sputum
- NAAT/PCR testing may not be available if patient has been on treatment for >3 days
- NAAT/PCR does not automatically reflex in all systems
 - Ensure test is ordered
 - Consider setting up order set

Ruling Out TB



TB ↓

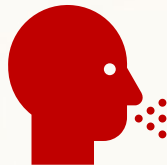


TB Clearances & Medical Referrals

- Kern County Public Health Clinic can assess well patients for TB risk
- Asymptomatic persons may need clearance for work or school



- KCPH clinic does not assess ill patients; referred to primary care

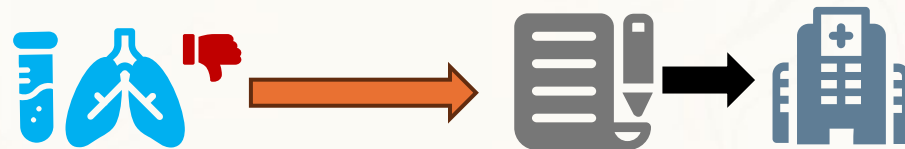


TB Clearances & Medical Referrals

- If active TB can be ruled out, patients receive a Clearance letter confirming no evidence of active TB



- If active TB cannot be ruled out, patients receive a Medical Referral with recommendations for further follow up



- Patients identified with LTBI can receive both a Clearance and Medical Referral for LTBI treatment



TB Clearances & Medical Referrals

- KCPH clinic does not offer LTBI treatment
- KCPH does not perform Civil Surgeon assessments



TB Clearances & Medical Referrals

KERN COUNTY / Public Health
Brynn Carrigan - DIRECTOR
Kristopher Lyon, MD - HEALTH OFFICER
MEDICAL REFERRAL FORM

To: _____ Date: _____
(Name of Physician or Clinic)

Patient's Name: _____
(Last) (First) (Middle)

Address: _____

Phone: _____ Date of Birth: _____ Family Head: _____
(If patient <18 years, name of parent/guardian)

Referring Clinic: Kern County Public Health Phone: (661) 321-3000

Reason for Referral ☐ Evaluation and Recommendation for LTBI Treatment

Screening Test: ☐ TST or IGRA result attached
TST Date: _____ Result: _____ mm of induration
IGRA Date: _____ Result: ☐ Positive ☐ Negative ☐ Indeterminate

Chest Imaging: ☐ CXR Report attached
CXR Date: _____ Result: ☐ Normal ☐ Abnormal

Pertinent History and Physical Findings:
☐ Patients report no signs or symptoms related to TB, such as cough, night sweats, hemoptysis, dyspnea, weight loss, or enlarged lymph nodes.
☐ Other: _____

Date Seen: _____

Kristopher Lyon, MD
NPI 1114131489

Babyruth Garing, NP
NPI 1750847745

Emily Lin NP
NPI 1982358479

Patient Consent: I authorize and request release of the medical information on this form for the purposes of assisting in my diagnosis and treatment, and for public health research.
Consentimiento del Paciente: Yo autorizo la entrega de información en esta forma para asistir in mi diagnóstico y tratamiento, y para investigaciones del salud pública.

(Patient Signature/Firma) _____ (Date/Fecha) _____
Grounded in Health KCPH- LTBI Referral only (Rev 05/26)
1800 Mt. Vernon Ave., Bakersfield, CA. 93306 | 661.321.3000 | www.kernpublichealth.com

Reason for Referral ☐ Evaluation and Recommendation for LTBI Treatment

Screening Test: ☐ TST or IGRA result attached

TST Date: _____ Result: _____ mm of induration

IGRA Date: _____ Result: ☐ Positive ☐ Negative ☐ Indeterminate

Chest Imaging: ☐ CXR Report attached

CXR Date: _____ Result: ☐ Normal ☐ Abnormal

Pertinent History and Physical Findings:

☐ Patients report no signs or symptoms related to TB, such as cough, night sweats, hemoptysis, dyspnea, weight loss, or enlarged lymph nodes.

☐ Other: _____

Date Seen: _____

- Example Medical Referral Form

Reporting to Public Health

- Active TB is reportable within one (1) working day of identification (Title 17 §2500)



- LTBI is not reportable to Public Health by clinicians
 - Positive IGRA results are required to be lab-reported in accordance with Title 17 §2505
 - Exception: Civil Surgeons must report LTBI for status adjustors

Reporting to Public Health

- Confidential Morbidity Report (CMR)

<https://www.kernpublichealth.com/home/showpublisheddocument/15169/638525231291500000>

- CalREDIE Provider Portal

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/CalREDIEProvider-Portal.aspx>

The screenshot shows the CDPH website with a search bar and navigation links. The main heading is "CALIFORNIA REPORTABLE DISEASE INFORMATION EXCHANGE". Below this, there is a section for "Provider Portal (PP)" which states: "The Provider Portal module provides secure access for healthcare providers to electronically submit Confidential Morbidity Reports (CMRs), required by California Code of Regulations (CCR), Title 17, Section 2500 directly to Local Health Departments (LHD). CMRs received via the PP are available in real-time to local health staff for investigation and follow-up, thus reducing the burden of data entry at the local level and increasing the timeliness of reporting." It also mentions that providers from almost all LHDs throughout California are reporting to CalREDIE via the PP, and the expansion efforts are ongoing. The CalREDIE team provides assistance to LHDs who are interested in recruiting and training providers. If you are from a LHD that is interested in receiving PP onboarding assistance from the CalREDIE team, please contact CalREDIEHelp@cdph.ca.gov.

The screenshot shows the "CONFIDENTIAL MORBIDITY REPORT" form for Tuberculosis. The form is titled "DISEASE BEING REPORTED" and "Tuberculosis". It includes fields for Patient Name (Last Name, First Name, MI), Home Address (Number, Street, City, State, ZIP Code), Home Telephone Number, Cell Telephone Number, Work Telephone Number, Email Address, Birth Date (mm/dd/yyyy), Age, Gender, Primary Language, Pregnancy status, Estimated Delivery Date, Country of Birth, Occupational or Exposure Setting, Date of Onset, Date of First Specimen Collection, Date of Diagnosis, Date of Death, Reporting Health Care Provider, Reporting Health Care Facility, and Laboratory Name. It also includes sections for "TUBERCULOSIS (TB)" with sub-sections for Mantoux TB Skin Test, Interferon Gamma Release Assay (IGRA), Bacteriology/Pathology, and TB Treatment Information. The form is labeled "Page 1 of 2".



Reporting to Public Health

- Will ask for additional materials
 -  Medical Records (H&P, ID, Pulm)
 -  Lab Results
 -  Imaging
 - Send via
 -  Provider Portal Upload (electronic filing cabinet)
 -  Confidential Fax: 661-868-0261
 -  Secure email: kcphdtbcontrol@kerncounty.com
- 



Reporting to Public Health

- Extrapulmonary TB is reportable to Public Health
 - Pulmonary TB should be ruled out
 - Concurrent pulmonary and extrapulmonary infections occur
 - Clinical TB can be diagnosed in the absence of confirming laboratory evidence
 - Clinical TB is reportable to Public Health
- 



H&S Code §121361 (GOTCH)

- (a) (1) A health facility, local detention facility, or state correctional institutions shall not discharge or release any of the following persons unless subdivision (e) is complied with:
- (A) A person known to have active tuberculosis disease
 - (B) A person who the medical staff ... has reasonable grounds to believe has active tuberculosis disease
- (2) ... may be discharged ... only after a written treatment plan described in Section 12362 is approved by the local health officer. Any treatment plan submitted for approval pursuant to this paragraph shall be reviewed by the local health officer within 24 hours of receipt of that plan.
- 

Written Treatment Plan (§121362)



- Verified patient address
- Name of medical provider who has agreed to provide outpatient medical care
- Clinical information used to assess current infectious state:
 - Symptoms
 - Labs, imaging
 - MAR
 - Consult notes – ID, Pulmonology, etc.
- Any other information as required by local health officer
 - Confirmation of 30 days of TB medication in hand



- 

TB Discharge Plan



- Appropriate TB regimen
 - As recommended by American Thoracic Society (ATS), Infections Disease Society of America (IDSA), or TB Consulting Physician



- 30 days of medication in hand
 - At least 24 hours on current medication regimen for assessment of acute medication reactions



- Clinical improvement/stabilization
 - Persons with lower baseline health, known liver or kidney diseases, autoimmune disease, etc. may need to remain hospitalized for a longer duration

TB Discharge Plan



- First outpatient follow-up appointment must be scheduled
 - Date, time, and provider



- DOT and sputum collection order signed by hospital physician



- Special needs (medical, transport, etc.) have been addressed



- Patient demonstrates ability to perform activities of daily living (ADL) or has confirmed support system in the home

TB Discharge Plan



- In-person visit conducted by Public Health staff
- Home assessment conducted by Public Health staff
 - If patient is still infectious and cannot isolate at home, patient may not be able to discharge home if there are high risk contacts in the household (e.g. children <5 years of age not on window prophylaxis)
 - Public Health works closely with patient and family to make alternate arrangements, but this may take additional time
- As much advance notice of pending discharge as possible is appreciated
- No discharges authorized on weekends or holidays





TB Discharge Plan

- Approval exceptions per 12136(3):
 - Immediate transfer for higher level of care
 - Health facility to correctional institution
 - Must still submit TB Discharge Plan to Public Health, but do not need approval prior to patient movement
 - State <-> local correctional institution movement requires plan to be submitted facility Chief Medical Officer
 - Discharge to another county requires approval from Health Officer of receiving county
- 

Release from Isolation Guidance

- Patients with suspected TB should be isolated until TB is ruled out or criteria for release from isolation is met
- California Health and Safety Code §120175, §121365, §121366 give authority to the Health Officer to require isolation
- Isolation orders may be issued for the hospital or the home environment
- Failure to comply with isolation order is punishable by up to one year in jail
- Health Officer will rescind the isolation order when patient is determined to no longer be communicable



Release from Isolation Guidance

 **Public Health**

Brynn Carrigan - DIRECTOR
Kristopher Lyon, MD - HEALTH OFFICER



ORDER OF ISOLATION-Home

This order of the Health Officer of the County of Kern is pursuant to Sections 120175 and/or 121365 and/or 121366 of the Health and Safety Code of the State of California and sets forth all of the following:

(1) The legal authority under which this order is made is pursuant to Section 121365(d) of the Health and Safety Code of the State of California. Based on an investigation by the Kern County Department of Public Health, the Health Officer has reasonable grounds to believe that you have active tuberculosis and are infectious.

(2) The person named below is ordered to be isolated at:

The person listed below, may not: (1) leave the place of isolation without permission of the Health Officer (2) must follow the isolation instructions listed in the attached Patient Instructions for Tuberculosis Isolation, (3) with the exception of Kern County Department of Public Health Staff, may not have any visitors at the place of isolation other than the following:

The basis of the issuance of this order is due to the following individualized assessment of circumstances of the person named below: Sputum collected (date) and shows:
(Rare/Few/Many) Acid-Fast Bacilli (AFB) seen.

Three consecutive respiratory specimens, including at least one early A.M. or induced sputum, collected at least 8-24 hours apart, resulting Acid Fast Bacilli smear negative will be required prior to release from isolation.

(3) Person named below was not offered any less restrictive alternatives by Department of Public Health.

This order shall be served upon the person placed in respiratory isolation pursuant to this order:
Name: Name DOB: Date of Birth

Period of Time: **Until rescinded by the Tuberculosis Controller, but not longer than 60 days from serving date.**

Location:

Other Terms: Respiratory Isolation

(See Other Side)

Grounded in Health

1800 Mt. Vernon Ave., Bakersfield, CA. 93306 | 661.321.3000 | www.kernpublichealth.com

Purpose: To protect and treat the above named person for Tuberculosis and to protect the health of the public by preventing the spread of this disease.

The person named above, Name _____ DOB: Date of Birth _____
has been advised of the right to request release from respiratory isolation by contacting the TB Controller for the County of Kern Dr. Kristopher Lyon, M. D., at (661) 321-3000.

Violation of this order is a crime punishable by confinement in the County Jail for up to one year. If you fail to comply with this order, this department will obtain a warrant for your arrest under Section 120280 of the California Health and Safety code, failure to comply with Health Officer Regarding Tuberculosis Control.

(For Dr. Kristopher Lyon, M.D., Health Officer) Date: _____

I have read the above information. ☐ Yes ☐ No

It has been read to me in _____ and I understand it. ☐ Yes ☐ No
(Language)

Date: _____ Patient's Signature: _____

Date: _____ Witness: _____

THIS ORDER SHALL REMAIN IN EFFECT UNTIL RESCINDED BY THE HEALTH OFFICER.

CONDITIONS OF RESCISSION. Patient is returned to their regular activities
(Per CCR Title 17, section 2534 and Health and Safety Code 120130)

Three consecutive negative sputum smears.

Sputum collected on: Date 1: _____ Date 2: _____ Date 3: _____

RESCINDED THIS _____ DAY OF _____,

RESCINDED BY _____

Grounded in Health

1800 Mt. Vernon Ave., Bakersfield, CA. 93306 | 661.321.3000 | www.kernpublichealth.com



Release from Isolation Guidance

Historical requirement:

- 3 consecutive negative sputum smear results
- Collected at least 8 hours apart
- At least one early morning sputum collection

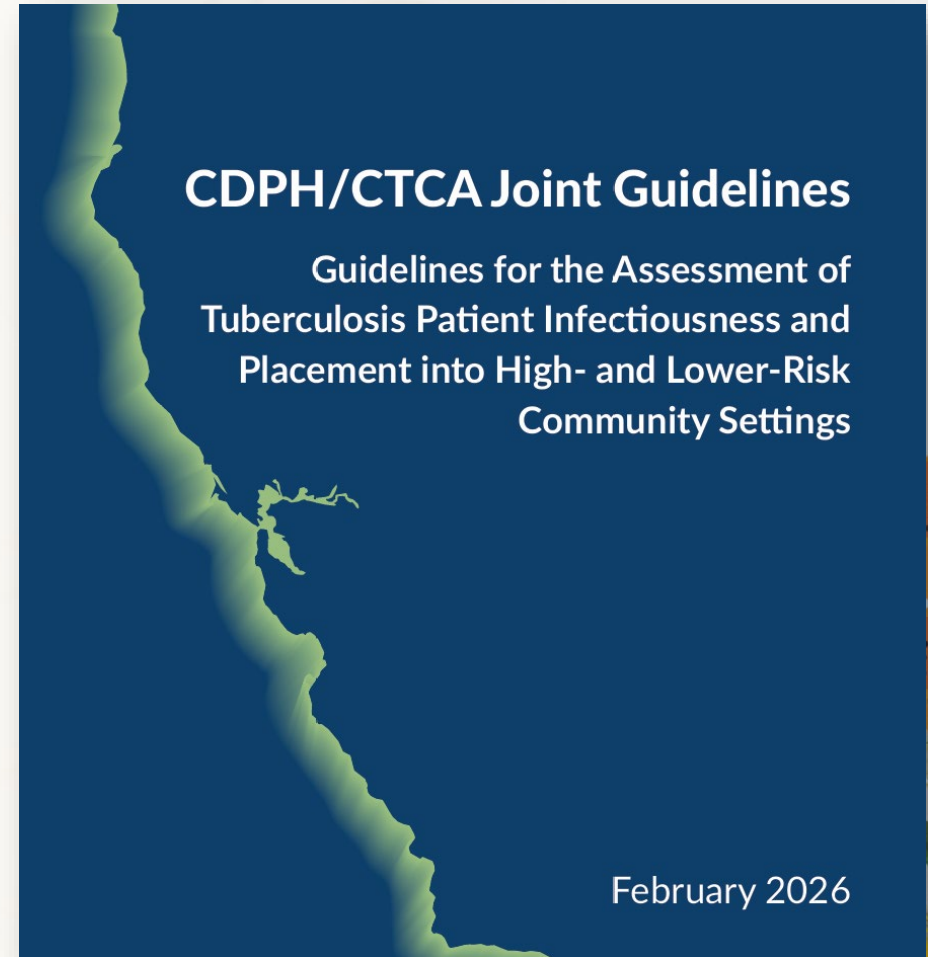


Release from Isolation Guidance

Factors:

- Level of suspicion for TB
- Availability of NAAT test results
- Risk of multidrug-resistant TB
- Risk of transmission in current setting
 - Presence of high-risk contacts
- Number of days on treatment (DOT)
- Clinical improvement

https://ctca.org/wp-content/uploads/CDPH-cleared-infectiousness-updates-110325_p26-Key-corrected.pdf



Release from Isolation Guidance

Table 1. Recommended Criteria for Release from Respiratory Isolation and Restrictions (RIR) Based on Patient Characteristics of Infectiousness in Community Settings after preliminary evaluation for TB (with final review and determination by Local Health Jurisdiction of the community venue into which the patient will be entering)

Patient Clinical Features	Lab Criteria for release from RIR for all settings	Treatment criteria for release from RIR into High Risk Community Settings	Treatment criteria for release from RIR in Low/Medium Risk Community Settings
Low suspicion for TB (TB5 low, alternate diagnosis more likely, no empiric treatment) • Smear neg x3, NAAT neg • Smear pos, NAAT neg x2 (ideally smear and NAAT from same specimen)	AFB smear neg x 3 OR AFB smear pos and NAAT neg x2	No minimum days of TB treatment required	No minimum days of TB treatment required
TB known/suspected (TB3 or TB5 high), without MDR risk-factors • Smear neg x3, NAAT neg • Smear neg x3, NAAT pos	No rpoB mutation if NAAT pos	≥ 5 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement	≥ 1 dose of appropriate TB treatment taken by DOT and tolerated
TB known/suspected (TB3 or TB5 high) • Smear pos, NAAT pos (NAAT or other molecular testing for rifampin susceptibility must be completed prior to RIR)	No rpoB mutation (if rpoB testing not available, for high-risk settings use Table 2)	≥ 14 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement	≥ 5 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement
MDR TB suspected (TB5 high) • Smear neg, NAAT neg, MDR risk factors	1 st and 2 nd line DSTs requested on any culture growth with WGS DST	≥ 14 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement	≥ 14 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement
MDR TB known (TB3) • Smear neg, NAAT positive with rpoB mutation or high probability of rifampin resistance • Smear pos, NAAT positive with rpoB mutation or high probability of rifampin resistance	Molecular resistance testing requested	≥ 14 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement, no cough AND Molecular or growth-based susceptibility results available	≥ 14 days of appropriate TB treatment by DOT taken and tolerated AND clinical improvement



Release from Isolation Guidance

Table 2: Recommended Criteria for Release from Respiratory Isolation Restriction (RIR) Based on Patient Characteristics of Infectiousness in Healthcare Settings in 2005 CDC guidance, after preliminary evaluation for TB (with final review and determination by Local Health Jurisdiction in which the healthcare setting is located)

Category	Lab Criteria	Treatment Criteria for RIR release in High Risk Healthcare Settings
Low TB suspicion (TB5 low no empiric treatment, alternate diagnosis more likely) - Smear neg x3, NAAT neg - Smear pos, NAAT neg x2 (ideally same specimen)	AFB smear negative x 3 OR AFB smear positive and NAAT negative x2	No minimum number of days of TB treatment required
TB known/suspected (TB3 or TB5 high, no MDR risk-factors) - Smear negative x3, NAAT negative - Smear negative x3, NAAT positive	No rpoB mutation if NAAT positive AND AFB smear negative x 3	≥ 5 days of appropriate* TB treatment by DOT taken and tolerated AND clinical improvement
TB known/suspected (TB3 or TB5 high) - Smear positive, NAAT positive - NAAT or other evidence of molecular susceptibility to rifampin should be completed prior to release from isolation	No rpoB mutation AND AFB smear negative x 3 OR TB culture negative x 2	≥ 14 days of appropriate* TB treatment by DOT taken and tolerated AND clinical improvement
MDR TB suspected (TB5 high) Smear negative, NAAT negative, MDR risk factors	Molecular resistance testing requested* (if unavailable, while phenotypic DSTs are pending, either criteria for patients with known MDR TB or criteria for patients without increased risk of MDR TB can be applied at TB controller's discretion) AND AFB smear negative x 3	≥ 14 days of appropriate* TB treatment by DOT taken and tolerated AND clinical improvement
MDR TB known (TB3) - Smear neg, NAAT positive with rpoB mutation - Smear pos, NAAT positive with rpoB mutation	Molecular resistance testing requested* AND TB culture negative x 2 AND AFB smear negative x 3 OR if subsequent AFB smear positive, clinical assessment performed and determined to most likely not represent viable M. TB	≥ 14 days of appropriate* TB treatment by DOT taken and tolerated AND clinical improvement



Release from Isolation Guidance



- Decreased cough
- Appropriate weight gain
- Repeat radiograph imaging improved (or stable)
- AFB smears improving (decreasing in positivity)
- Culture positivity time lengthening



Release from Isolation Guidance

- Guidance is not absolute
- Release from respiratory isolation and restrictions must be approved by the Health Jurisdiction in which the patient will be after ending respiratory isolation
- Some jurisdictions may have more stringent requirements than Kern
- Public Health will help work with receiving jurisdiction as much as possible to coordinate information and expectations



Release from Isolation Guidance

- Patients CAN be discharged from the hospital on isolation
- Considerations:
 - Can appropriate follow-up be performed while patient is isolated at home?
 - Not recommended to visit outpatient lab draw stations while under isolation
 - No recommended for in-home support services or social services while under isolation
 - Limited availability for induced sputum specimen collection
 - Is the home appropriate for isolation?
 - Extra time needed for housing support



Release from Isolation Guidance

Patients may need to be re-isolated if any of the following occur:

- Prolonged interruption of effective treatment
 - ≥ 2 weeks during initiation phase or
 - ≥ 30 days during continuation phase
- Suspicion of treatment failure
- Newly identified drug resistance
- New smear positive result
- Other indication of infectiousness





Public Health Case Management

- Patients are assigned to a TB Control Case Manager and Field Public Health Nurse
- TB Control typically interfaces with healthcare provider
- Field typically interfaces directly with the patient
- Primary goal: ensure treatment completion to reduce transmission



Public Health Case Management

- DOT and Sputum Order
 - Public Health may provide a draft for review
 - Completed and signed by outpatient provider
 - Available online:
<https://www.kernpublichealth.com/healthy-community/illness-disease/disease-conditions/tuberculosis/tuberculosis-information-for-healthcare-providers>

KERN COUNTY	Public Health	Brynn Carrigan - DIRECTOR Kristopher Lyon, MD - HEALTH OFFICER	
Request for Provider Order for TB Services for Mutual Patient Direct Observed Therapy (DOT) and Sputum Collection			
Today's Date: _____			
Patient Name: _____		Date of Birth: _____	
Pt Weight: _____ Kg on Date: _____			
This patient is to be placed on DOT for the duration of TB treatment.			
Current TB Treatment Regimen for TB:			
☐ Isoniazid	300 mg x _____	= _____	mg total daily dose
☐ Rifampin	300 mg x _____	= _____	mg total daily dose
☐ Ethambutol	400 mg x _____	= _____	mg total daily dose
☐ Pyrazinamide	500 mg x _____	= _____	mg total daily dose
Sputum Collection Orders (check all that apply)			
☐ Collect initial series of three (8-24 hours apart, including at least one in early AM)			
☐ Collect at least weekly until AFB smear conversion negative x 3			
☐ Collect monthly until culture conversion documented			
Provider Name (print): _____			
Provider Signature: _____		Date: _____	
FOR PUBLIC HEALTH USE ONLY			
ASSIGNMENT OF BENEFITS			
I hereby assign and convey directly to Kern County Department of Public Health Services, as my designated authorized representative reimbursement (if any) including Medicare, otherwise payable to me for any services rendered or provided by Kern County Department of Public Health Services, regardless of its managed care network participation status. I understand that I am financially responsible for all charges regardless of applicable insurance or benefit payments. I hereby authorize Kern County Department of Public Health Services to release all medical information necessary to process my claims.			
Signature of patient (or personal representative): _____		Date: _____	
Please fax return to 661-868-0261 - Kern County TB Control. Thank you!			
<i>Granted in Health</i>			
1800 Mt. Vernon Ave., Bakersfield, CA. 93306 661.321.3000 www.kernpublichealth.com			
Updated 09/12/2025			

Public Health Case Management

- Provider Update
 - Sent prior to patient's outpatient visit (when appointment date is known)
 - Includes completed doses of DOT, microbiology summary, and additional information from Public Health

Microbiology - AFB Smear and Culture Results Summary							
For Pt: Doe, John DOB 01/01/01							
# 123456							
Time Collected	Date Collected	Site/Source	AFB Smear Results	PCR	Culture Results	Lab	Comments
900	5/16/2026	Sputum	POS Few	POS; No rpoB mutation	POS MTB	KCPH	DSTs show Susceptible to RIF, INH, EMB (Collected: 05/09/26 and Resulted: 06/01/26)
900	5/17/2026	Sputum	POS Moderate		POS MTB	KCPH	SMEAR CONVERSION
900	5/18/2026	Sputum	POS Moderate		POS MTB	KCPH	
640	5/28/2026	Sputum	POS Rare		POS MTB	KCPH	
752	6/3/2026	Sputum	POS Rare		POS MTB	KCPH	
658	6/10/2026	Sputum	NEG		NEG	KCPH	
857	6/18/2026	Sputum	NEG		Pending	KCPH	
643	6/25/2026	Sputum	NEG		Pending	KCPH	
745	7/25/2026	Sputum	NEG		Pending	KCPH	



Public
Health

Brynn Carrigan - DIRECTOR
Kristopher Lyon, MD - HEALTH OFFICER



Tuberculosis Case Management

Health Dept. Information Update/Request for Order from Provider

DATE:

Patient Name:

DOB:

Provider (MD):

RE: Infectious Disease Follow- Up.

Diagnosis:

Weight:

Labs - Microbiology: SEE ATTACHED

TB Meds Start Date:

Date Isolation Order Rescinded:

Culture Conversion Date:

Current TB Meds:

Sensitivities:

Estimated TB Treatment Duration:

DOT (Direct Observed Therapy) Weeks Summary:

Request to Provider:

Provider Notes:

Patient's Next Appointment (Date and Time):

Grounded in Health

1800 Mt. Vernon Ave., Bakersfield, CA. 93306 | 661.321.3000 | www.kernpublichealth.com

Directly Observed Therapy (DOT)



- DOT is the standard of care for all patients with active TB
- DOT orders are signed by the outpatient healthcare providers and supported by Public Health staff
- Issues identified during DOT are reported to the prescribing healthcare provider
- Public Health will attempt to facilitate communication with the prescribing healthcare provider while supporting the patient's autonomy
- In general, Public Health recommends patient holds treatment until the patient receives direction from their prescribing healthcare provider if there are questions, concerns, side effects, or reactions



Directly Observed Therapy (DOT)



- In-person DOT
 - Public Health staff visit the patient in person Monday-Friday to witness medication being taken as ordered



- Video DOT (vDOT)
 - Public Health staff review video recording of patient self-administering medication Monday-Friday
 - Patients may submit videos on weekends as well
 - Useful for patients taking medication outside regular business hours, while at work, while traveling, etc.
 - Increases privacy and autonomy



Directly Observed Therapy (DOT)



- TB treatment completion is relative to the amount of medication taken (DOT) not the amount of time since starting treatment

Avoid giving patients a timeframe

- 6-month treatment is often interpreted as 6x4 weeks (24 weeks) rather than 26 weeks
- 9-month treatment is often interpreted as 9x4 weeks (36 weeks) rather than 39 weeks
- Does not account for missed doses



Directly Observed Therapy (DOT)

- 182 doses of treatment or 130 days of DOT sounds like a lot because it is a lot!
- Taking treatment while you feel well is difficult
- Treatment may also be extended due to
 - Missed doses
 - Changes in treatment regimen
 - Slow culture conversion (>60 days)
 - Comorbidities
 - Other clinical indicators



Common Reasons for Missed DOT

- Side effects
 - Advised to contact healthcare provider
- Not present for in-person DOT
 - Healthcare provider visits
- Video not submitted
- Unacceptable video (missing medication, video ends early, etc.)





Contact Investigations

- Typically, not conducted when
 - Cases have only extrapulmonary TB
 - Cases are <10 years of age
 - Often conduct a source case investigation instead
 - Family members and household contacts
 - Healthcare workers with unprotected exposures
- 



Contact Investigations

High Risk Contacts:

- Children <5 years of age
 - Persons with weakened immune systems
- 



Contact Investigations

- Contacts are referred to their primary care provider for assessment and follow up, including LTBI treatment when applicable
- Public Health can draw blood for IGRAs and send for CXR for contacts with no primary care provider
- Public Health does not generally prescribe LTBI treatment for contacts to cases





Contact Investigations

- Referral for contacts to be assessed for LTBI

KERN COUNTY / Public Health

Brynn Carrigan - DIRECTOR
Kristopher Lyon, MD - HEALTH OFFICER



Date: _____

Dear Health Care Provider:

Your patient, _____, DOB: _____ has been identified as a contact to someone diagnosed with active pulmonary tuberculosis (TB) and is therefore part of a contact investigation being conducted by the Kern County Public Health Services Dept.

Please evaluate this patient as follows based on State and federal guidelines by testing for TB infection now and again on or after _____, (eight weeks after break of contact with the source TB patient [window period]).

- Evaluate with either an
 - IGRA type test (preferred), e.g. Quantiferon blood test or
 - A Mantoux TB skin test (5 mm or greater induration is considered a positive result).
 - If positive test result returned:
 - obtain chest x-ray and
 - evaluate for the evidence of active TB disease (cough, hemoptysis, night sweats, fever, headache, etc.)
- Obtain sputum x3 (8-24 hours apart) if Quantiferon or TST positive and CXR abnormal and/or presence of respiratory symptoms.

Treatment of latent TB infection (LTBI):
We highly recommend that treatment of LTBI be initiated after the possibility of active TB disease has been excluded.

Please review the following link for information on LTBI treatment:
<https://www.cdc.gov/tb/topic/treatment/ltbi.htm>

I am requesting a faxed copy of the following documents for this patient, when available, to the Kern County Public Health Services Dept. Tuberculosis Control at fax number: _____

☐ IGRA (Quantiferon) or TST result
☐ Chest x-ray report (if applicable)
☐ Medication order (if applicable)

Regards,

Grootened in Health
1800 Mt. Vernon Ave., Bakersfield, CA. 93306 | 661.321.3000 | www.kernpublichealth.com



Contact Investigations

- Window prophylaxis for high-risk contacts



Public
Health

Brynn Carrigan - DIRECTOR
Kristopher Lyon, MD - HEALTH OFFICER



Tuberculosis Case Management

Health Department Referral

for High Priority Tuberculosis Contact Under 5 Years Old

Date: _____

Regarding High Priority TB Contact (Name): _____

Date of birth: _____

Age (years): _____

Dear Provider,

All children under 5 years of age (0-4 years old) with a history of contact with a person with infectious TB should undergo a medical evaluation and window prophylaxis. Medical evaluation includes a test for TB infection and a chest x-ray and physical examination.

The preferred test for TB infection for children 2 years and older is an IGRA blood test (e.g. Quantiferon). A TST (TB skin test, e.g. PPD) is preferred for children under two years of age. The test for TB infection should be repeated 8-10 weeks after the exposure has ended or the source case is not contagious.

Once active tuberculosis is ruled out, children under 5 should receive "Window Prophylaxis". Window prophylaxis is Rx'ed as isoniazid 10-15 mg/kg (max 300 mg) daily and should continue until the following conditions are met:

- The infant is at least 6 months of age
- The first and second test for TB infection are both negative

Please let us know if you have any questions. Please contact Kern County Public Health Nurse:

Name: _____, Phone: _____
(For Kristopher Lyon, MD, Public Health Officer)

Grounded in Health

1800 Mt. Vernon Ave., Bakersfield, CA. 93306 | 661.321.3000 | www.kernpublichealth.com

TB Testing Recommendations - HCW

Unless otherwise indicated:

- Upon hire
- Annually, if risk factor(s) present
 - High risk HCW regardless of risk factors
- After exposure
- Symptoms consistent with TB

https://ctca.org/wp-content/uploads/GHCPS02_14_2025.pdf

 CTCA CALIFORNIA TUBERCULOSIS CONTROLLERS ASSOCIATION			Guidance for TB Screening, Testing and Treatment of Health Care Personnel January 2025	
Time point	Universal TB Evaluation Requirements for HCP		Targeted Recommendations for HCP	
On-hire	If no documented evidence of prior TB : TB risk assessment, symptom review, and TB testing. If documented evidence of prior TB with documented stable or normal chest X-ray (CXR) ≤90 days prior to employee health assessment: TB symptom review. If documented evidence of prior TB without documented stable or normal CXR ≤90 days prior to employee health assessment: TB symptom review and CXR.		HCP with untreated TB infection (i.e., latent TB): provide treatment OR encourage treatment and provide linkage-to-care. Document treatment outcome. Trainees with prior TB and documented stable or normal CXR ≤90 days prior to matriculation in a training program in which they will rotate through multiple healthcare settings may be cleared with a negative symptom review, alone.	
Annual	All: Education about risks of TB disease exposure, signs and symptoms of TB disease, and benefits of testing if risk identified and treatment if TB is identified. Ability to opt into annual TB testing for any HCP should be included in the annual education for all HCP. Best practice for annual education would include individualized risk assessment for new TB disease exposures as per California Adult Tuberculosis Risk Assessment and User Guide and TB testing if new risk identified. If yes to any new risk factor on the CA TB Adult Risk Assessment questions, repeat TB testing shall be required. In addition, all HCP who opt in for annual TB testing should be provided the desired TB testing.		High-risk HCP (defined in text: high-hazard procedures, pre-triage areas, mycobacteriology bench, correctional/detention center) without documented evidence of prior TB : symptom review and TB testing. HCP with documented evidence of prior TB : symptom review and, if untreated TB infection (i.e., latent TB), provide treatment OR encourage treatment and provide linkage-to-care. Document treatment outcome.	
After exposure	If no evidence of prior TB : symptom review, examination, and immediate TB testing. HCP who were wearing a fit tested respirator (i.e., N95, PAPR) during the entire TB disease exposure may opt out of post exposure TB testing. Repeat TB testing should be obtained 8-10 weeks after the last TB disease exposure if initial testing was prior to 8 weeks from exposure. It is best practice to use the same TB testing modality for post-exposure testing. For HCP with documented evidence of prior TB : symptom review, examination, and CXR.		HCP with untreated TB infection (i.e., latent TB): provide treatment OR encourage treatment and provide linkage-to-care. Document treatment outcome. Depending on exposure history, HCP with prior treated TB and certain medical risk factors (e.g., HIV, solid-organ transplant, treatment with TNF-alpha inhibitor) may benefit from re-treatment; and clinical consultation with your local public health TB program is strongly recommended.	
Any time	Newly positive TST or IGRA result: TB risk assessment, symptom review, examination and CXR; consider clinical consultation. Positive TB disease symptom review: examination, TB testing and CXR; report to your local health department and consider clinical consultation. Abnormal CXR findings: prompt clinical consultation is recommended; report to your local health department immediately if TB disease is suspected.		With untreated TB infection (i.e., latent TB): provide treatment OR encourage treatment and provide linkage-to-care. Document treatment outcome.	

*HCP is defined as licensed healthcare personnel and other unlicensed staff working in direct clinical service settings, e.g., non-HCP sharing airspace with potential TB patients.
*TB in the table refers to both TB disease and TB infection.

TB Testing Recommendations - HCW

Persons with history of TB typically not recommended for repeat testing

- Symptom review
- Annual CXR not recommended in absence of symptoms

LTBI treatment is encouraged

- Persons with TB skin test maybe recommended for IGRA, particularly those with history of BCG vaccine



TB Testing Recommendations – School

- Child Health and Disability Prevention program sunset July 1, 2024
 - Title 22 §50031
- Ended statewide requirement for TB testing prior to school entry
- Some schools/districts may still require TB testing for school entry
- No Public Health recommendation or requirement to perform TB testing for school
- Bright Futures/AAP Periodicity Schedule continues to recommend annual risk assessments, with testing as indicated



TB Testing Recommendations - Other

- Certain colleges, universities, vocational schools, or specific programs still require TB testing
- Certain employers or occupational fields still require TB testing
- Review documents to determine if risk assessment is sufficient or if TB testing is required regardless of risk





Limitations

- Public Health staff are available Monday-Friday, 8:00am-5:00pm excluding County holidays
- Laboratory results are often reported around 4:00 pm

- On-Call Public Health Staff can be reached for after hours emergencies at (661) 241-3255
 - New positives are called in to submitting laboratory
- 



Help Us Help You

- Follow recommendations for TB assessment and follow up
 - Respond to records requests timely
 - Complete and return orders for DOT and sputum collection
 - Review Provider Updates
 - Educate, educate, educate!
- 



Meet the TB Control Staff

- **Health Officer:** Dr. Kristopher Lyon
 - **TB Controller:** Babyruth Garing, NP
 - **Supervising Public Health Nurse:** Larissa Ramirez
 - **Public Health Nurses:** Govi Sidhu, Harli Smith, Yanett Anguiano
 - **Licensed Vocational Nurse:** Jessica Navarro
 - **Communicable Disease Investigator:** Janelle Diaz
 - **Directly Observed Therapy (DOT) Worker:** Carol Barrios
- 



Other Public Health Staff

Field Nursing Staff

- Sara Swertfager
- Joe Bermudez
- Florante De Ocampo
- Nav Kaur
- Sunita Lewis
- Vivien Peralta
- Ally Rojas
- Simran Sidhu
- Anthony Villa
- Kati Zubiate

Laboratory Staff

- Brittany Fontejon
 - Erika Garcia
 - Sean Thompson
 - Stephanie Ertell
 - Mariela Chavez
 - Manny Quijano-Gonzalez
 - Hargel Pacheco
 - Hannah Escobedo
- 

Other Support and Collaboration

- Curry International Tuberculosis Center (“Curry Center”) Warm Line
 - CITC.idcrowd.org
 - CurryTBcenter@ucsf.edu
 - 877-390-6682 or 415-502-4700
 - <https://www.currytbcenter.ucsf.edu/consultation>



Tuberculosis Warmline

A Consultation Service for medical providers in the Western Region of the U.S.

Options for requesting a consultation:

- Visit CITC.idcrowd.org, register as a member, and complete the information requested
- Email currytbcenter@ucsf.edu
- Call 415-502-4700 or toll-free 877-390-6682, leave a voicemail

Look for an email from 'no_reply@idcrowd.org' with a summary of your consultation request.



In your consultation request, please provide the following:

1. Your **full name** (please clearly spell out your name)
2. Your **email address** and **telephone number** (include the best times to reach you in the next 48 hours)
3. Your **organization, city, and state**
4. A **brief summary of your question and approximate age of the patient**; please **DO NOT** include the patient's name or any other unique identifiers

Curry International Tuberculosis Center (CITC) staff members process consultation requests from 9:00 AM to 3:00 PM Pacific time, Monday through Friday.

Once processed, your request is forwarded to a consultant on duty. You will receive a response from the consultant within 40 hours (or 2 business days).

Please note that all consultation requests will be shared with the TB program staff in your jurisdiction.

For additional information, visit <https://www.currytbcenter.ucsf.edu>
Email: currytbcenter@ucsf.edu

Note: The Warmline is not a substitute for medical care or consultation with local experts or public health authorities. Requesters are free to disregard any advice offered. Final clinical decisions are the sole responsibility of the healthcare provider. Tuberculosis is a reportable disease and as such, healthcare professionals have a responsibility to act in accordance with local, regional, and state protocols, administrative rules and statutes.

Other Support and Collaboration

- California Department of Public Health TB Control Branch
 - <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TB-Resources-for-Healthcare-Providers.aspx>



CDPH
California Department of Public Health

Home | Programs | Center for Infectious Diseases | Division of Communicable Disease Control | TB Resources for Healthcare Providers

TUBERCULOSIS CONTROL BRANCH

TBCB Homepage
TB Disease and Data Publications
TB Resources for Local Health Departments
TB Risk Assessment
TB Resources for Healthcare Providers
TB Resources for the Public
Advocacy and Partners for TB
TB Guidelines and Regulations
TB Free California
TBCB Contact Us

TB Resources for Healthcare Providers

Provider Toolkit

- Provider Resources and Tools

Tools and Training

- Preventing Tuberculosis in Your Clinical Setting: A Practical Guidebook (ADA version) (PDF, 7.5MB)
- Preventing Tuberculosis in Your Clinical Setting: A Practical Guidebook (Non-ADA version) (PDF, 7.6 MB)
- Information for Physicians Regarding Directly Observed Therapy (DOT) for Active Tuberculosis (TB) (PDF)
- 12-dose Isoniazid (INH) plus Rifampentine Regimen for Latent TB Infection (LTBI) Treatment (PDF)
- Fact Sheet: Culture Conversion (PDF)
- Frequently Asked Questions about TB and HIV (PDF)
- Evaluation of Children Exposed to Infectious Tuberculosis (TB): Recommendations for Pediatric Primary Care (PDF)
 - Tuberculosis (TB) Exposure of Children <5 Years Old: A Guide for Medical Providers (PDF)
 - Tuberculosis (TB) Exposure of Children ≥ 5 Years Old: A Guide for Medical Providers (PDF)

Risk Assessments

- Risk Assessments

LTBI Treatment

- LTBI Treatment

Civil Surgeons

- Latent Tuberculosis Infection (LTBI) Brochure for Patient Education by Civil Surgeons (English) (PDF)
 - Latent Tuberculosis Infection (LTBI) Brochure for Patient Education by Civil Surgeons (Spanish) (PDF)
 - Latent Tuberculosis Infection (LTBI) Brochure for Patient Education by Civil Surgeons (Vietnamese) (PDF)
- Latent Tuberculosis Infection (LTBI) Poster for Patient Education by Civil Surgeons (English) (PDF)

Sign up to receive an email about TB prevention and Risk Assessment updates on the CDPH TB Control Branch webpage.

Other Support and Collaboration

- California Department of Public Health TB Control Branch
 - <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TB-Resources-for-Healthcare-Providers.aspx>
 - <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TB-Free-California.aspx>



TB FREE CALIFORNIA

A partnership to eliminate TB in California

CDPH
California Department of Public Health

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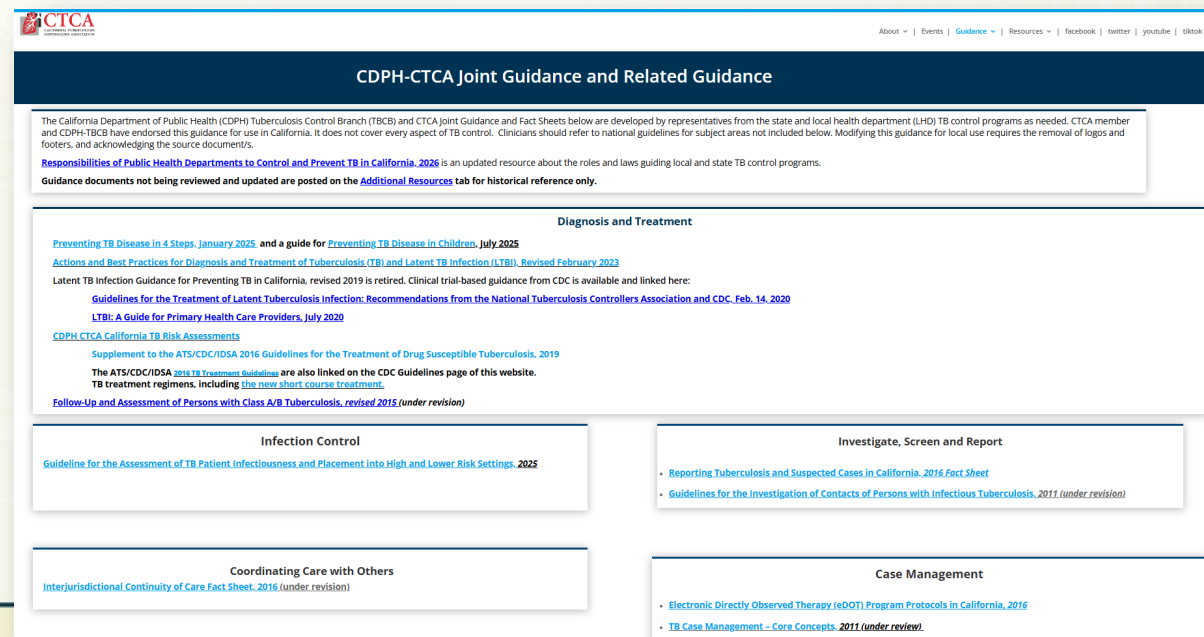
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Other Support and Collaboration

- California Tuberculosis Controllers Association
 - <https://ctca.org/guidelines/cdph-ctca-joint-guidelines/>



CTCA
California Tuberculosis Controllers Association

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CDPH-CTCA Joint Guidance and Related Guidance

The California Department of Public Health (CDPH) Tuberculosis Control Branch (TBCB) and CTCA Joint Guidance and Fact Sheets below are developed by representatives from the state and local health department (LHD) TB control programs as needed. CTCA member and CDPH-TBCB have endorsed this guidance for use in California. It does not cover every aspect of TB control. Clinicians should refer to national guidelines for subject areas not included below. Modifying this guidance for local use requires the removal of logos and footers, and acknowledging the source document/s.

Responsibilities of Public Health Departments to Control and Prevent TB in California, 2026 is an updated resource about the roles and laws guiding local and state TB control programs.

Guidance documents not being reviewed and updated are posted on the [Additional Resources](#) tab for historical reference only.

Diagnosis and Treatment

[Preventing TB Disease in 4 Steps, January 2025](#), and a guide for [Preventing TB Disease in Children, July 2025](#)
[Actions and Best Practices for Diagnosis and Treatment of Tuberculosis \(TB\) and Latent TB Infection \(LTBI\), Revised February 2023](#)

Latent TB Infection Guidance for Preventing TB in California, revised 2019 is retired. Clinical trial-based guidance from CDC is available and linked here:

[Guidelines for the Treatment of Latent Tuberculosis Infection: Recommendations from the National Tuberculosis Controllers Association and CDC, Feb. 14, 2020](#)
[LTBI: A Guide for Primary Health Care Providers, July 2020](#)
[CDPH-CTCA California TB Risk Assessments](#)

Supplement to the [ATS/CDC/IDSA 2016 Guidelines for the Treatment of Drug Susceptible Tuberculosis, 2019](#)
The [ATS/CDC/IDSA 2016 TB Treatment Guidelines](#) are also linked on the [CDC Guidelines](#) page of this website.
TB treatment regimens, including [the new short course treatment](#).

[Follow-Up and Assessment of Persons with Class A/B Tuberculosis, revised 2015 \(under revision\)](#)

Infection Control

[Guideline for the Assessment of TB Patient Infectiousness and Placement into High and Lower Risk Settings, 2025](#)

Investigate, Screen and Report

- [Reporting Tuberculosis and Suspected Cases in California, 2016 Fact Sheet](#)
- [Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis, 2011 \(under revision\)](#)

Coordinating Care with Others

[Interjurisdictional Continuity of Care Fact Sheet, 2016 \(under revision\)](#)

Case Management

- [Electronic Directly Observed Therapy \(eDOT\) Program Protocols in California, 2016](#)
- [TB Case Management – Core Concepts, 2011 \(under review\)](#)



Thank You for
Caring for Our
Community!

