CCHCS Care Guide: Tuberculosis-Surveillance

SUMMARY

December 2016

GOALS
- Perform surveillance to protect California Department of Corrections and Rehabilitation (CDCR) patients and California Correctional Health Care Services (CCHCS) staff from *Mycobacterium tuberculosis* (TB) infection and disease
- Identify patients with active (infectious) TB disease - Isolate, treat, and prevent transmission
- Identify patients with new TB infection. Offer latent TB infection (LTBI) treatment to prevent development of TB disease (if LTBI treatment refused, closely monitor for TB disease for first 2 years after infection, and rapidly isolate if TB develops)
- Identify patients with remote TB infection, consider LTBI treatment to prevent development of TB disease

DIAGNOSTIC CRITERIA/EVALUATION

SYMPTOM SCREENING: Refer for assessment if patient has cough more than 3 weeks, fever, weight loss, night sweats or hemoptysis

TUBERCULIN SKIN TEST (TST) (standard method in CCHCS for detection of TB infection, recent or past):
- Recorded in millimeters (mm) of induration (raised, hardened area or swelling), do not measure erythema redness.
- Interpreted as "positive" or "negative" dependent on clinical factors or known exposure to TB.
- The indurated area should be measured across the forearm (perpendicular to the long axis of the arm).
- Those with documented severe necrotic reaction to the TST should have an interferon gamma release assay (IGRA) instead of TST.
- Pregnancy, lactation, or previous Bacillus Calmette-Guérin (BCG) vaccinations are not contraindications for a TST.
- Known recent exposure to a TB case and a new > 5 mm TST (these patients are most often identified during a contact investigation); or
- Documented prior active TB disease.

POSITIVE TST:
- Induration of > 5 mm for patients with a high risk condition
- Induration of > 10 mm for all others

EXCLUSION FROM TESTING:
- TST is not needed on arrival at reception center if the patient has:
  - Documented positive TST or positive IGRA;
  - Documented negative TST or negative IGRA in past 30 days (negative TST is < 5 mm high risk condition or < 10 mm in all others); or
  - Documented prior active TB disease.

TB INFECTION: Infected with *Mycobacterium tuberculosis*; patients with TB infection (also known as LTBI) are not contagious.

RECENT TB INFECTION: TB infection occurring in the past 2 years.
- Newly positive TST found because of a workup for symptoms consistent with TB on arrival at reception (> 5 mm induration with a high risk condition [e.g., immunocompromised] or > 10 mm induration without a high risk condition).

REMOTE TB INFECTION: Documented TB infection more than 2 years prior.

TB DISEASE: Clinical evidence of TB disease.

CXR - New CXR indicated for:
- Newly positive TST or newly positive IGRA test;
- Any patient with a documented prior positive TST on arrival at reception center (new arrival or parole violator, not a transfer from another CDCR institution);
- Any patient prior to starting treatment for TB infection (even if remotely infected and asymptomatic); or
- New arrivals at reception centers with a high risk condition.

Baseline CXR:
- Baseline CXR is a chest x-ray taken after TB infection is identified.

MONITORING (EXCLUDING CONTACT INVESTIGATIONS)

ACTIVE TB SYMPTOM SCREENING
- Upon arrival at reception center
- During annual screening
- Transfers between institutions and category S (short stays from other agencies)
- Returns from out to court (OTC)
- Before transfer to California Department of State Hospitals

TB SKIN TEST
- Upon arrival at a reception center, unless documented negative IGRA or negative TST (< 5 mm with high risk condition, < 10 mm for all others) in prior 30 days or documentation of TB infection (positive IGRA or positive TST)
- For clinical assessment of symptoms consistent with TB, if no documented prior positive TST or prior positive IGRA test
- In the context of a TB exposure (contact investigation)

Information contained in the Care Guide is not a substitute for a health care professional’s clinical judgment. Evaluation and treatment should be tailored to the individual patient and the clinical circumstances. Furthermore, using this information will not guarantee a specific outcome for each patient. Refer to “Disclaimer Regarding Care Guides” for further clarification.
Symptom screening: All patients shall be screened for symptoms of active TB immediately on arrival.

Symptoms present:
- All patients with symptoms or signs of TB (regardless of the TST result) shall wear a surgical mask and be sent to Triage and Treatment Area (TTA) to be evaluated for active TB disease. Workup will include a medical evaluation and, if clinically indicated, a CXR and sputum smears and cultures for Acid-Fast Bacilli (AFB).
- Contact the sending institution to obtain additional available medical information.

Asymptomatic patients:
- Patients with prior negative TST or unknown or inadequate documentation of TB infection status shall:
  - Have a TST placed within 72 hours of arrival at a Reception Center.
  - TST is not indicated for:
    - Documented TST < 5 mm in past 30 days for patient with a high risk condition
    - Documented TST < 10 mm in past 30 days for patient without a high risk condition
    - Documented TST with mm reading interpreted as 'positive' at any time in the past
    - Documented IGRA test interpreted as positive (any time in the past)
  - HIV infected
    - Asymptomatic patients known to be HIV infected shall also receive a CXR within 72 hours of arrival at reception unless their records contain documentation of a normal or stable CXR within the preceding 30 days. The CXR should be read in 24 hours.
    - Any HIV infected patient with a CXR abnormality that cannot be documented as stable for 60 or more days by previous records, with the exception of an isolated calcified granuloma or apical pleural thickening, shall be isolated and evaluated by a clinician even if asymptomatic.

Workup after TST reading:
- < 5 mm TST reading in patients who are asymptomatic and HIV negative do not require a CXR or further work up.
- All patients with TST > 5 mm must have a repeat symptom screen completed at time of test reading.
- Patients with a TST of 5 - 9 mm with a high risk condition for TB disease must have a CXR within 72 hours of test reading to evaluate for TB disease.
- All patients with a TST of > 10 mm must have CXRs within 72 hours of test reading to evaluate for TB disease.

High Risk Condition is:
- HIV-infected or has an unknown HIV infection status;
- Has had an organ transplant and is on transplant immunosuppression; or
- Is otherwise immunosuppressed (e.g., receiving the equivalent of ≥ 15 mg/day of prednisone for ≥ one month, chemotherapy for cancer, or TNF alpha antagonists).

Patients with a new positive TST (patients with a TST of 5 - 9 mm with risk factors, and patients with a TST of > 10 mm with or without risk factors) shall have a CXR to assess for radiographic evidence of active TB disease within 72 hours. If the CXR has no radiographic evidence of active TB disease and the patient is asymptomatic, consider treatment for LTBI.

**CXR for asymptomatic patients with no known history of active TB disease.**

<table>
<thead>
<tr>
<th>TST (mm)</th>
<th>High Risk condition</th>
<th>CXR recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - &lt; 4 mm</td>
<td>NA</td>
<td>No CXR</td>
</tr>
<tr>
<td>5 - 9 mm</td>
<td>Yes</td>
<td>Obtain CXR to evaluate for TB disease</td>
</tr>
<tr>
<td>10 - 19 mm</td>
<td>No</td>
<td>No CXR</td>
</tr>
<tr>
<td>≥ 20 mm</td>
<td>NA</td>
<td>Obtain CXR to evaluate for TB disease</td>
</tr>
</tbody>
</table>

NA is not applicable

**EVALUATION FOR CXR FINDINGS CONSISTENT WITH ACTIVE TB DISEASE**

⇒ If the CXR has abnormalities consistent with TB or if the CXR is normal but the patient has symptoms consistent with tuberculosis, the patient should wear a surgical mask and be sent to the TTA to be evaluated for TB disease. Treatment for LTBI should be delayed until TB disease has been ruled out. Sputum specimens for AFB smear and culture should be obtained even when the radiographic abnormalities appear stable (excluding isolated calcified granulomas and apical pleural thickening). Treatment for LTBI should not be initiated until three culture results are reported as negative for TB disease (from adequate sputum specimens collected at least 8 hours apart). Records will be reviewed to ensure that they completed the indicated TB treatment course.

**Documented prior positive TST—** Patients with a written documentation of a positive IGRA test or a positive TST with a written record of a mm read and a positive interpretation (≥ 5mm with risk factors or ≥ 10 mm without risk factors) shall:

⇒ Be considered for treatment for LTBI if there is no documentation of treatment or if previous treatment was incomplete or inadequate.
⇒ Within 72 hours of arrival at a reception center, have a CXR and further workup as clinically indicated to rule out TB disease before offering LTBI treatment (isolated calcified granulomas and apical pleural thickening are not considered radiographic evidence of active TB disease).
⇒ Have a repeat CXR taken if prior CXR taken more than six months before entry or re-entry into CDCR.

**Documented prior TB disease—** Patients with history of prior TB disease shall be evaluated by a health care provider; and should have a baseline CXR.
**TB Reception Center Screening**

1. **Start**
   - **TB Symptoms?**
     - **Yes**
       - Surgical mask
       - TTA
       - PCP evaluation
     - **No**
       - **HIV?**
         - **Yes**
           - Prior TB disease?
             - **Yes**
               - Continue TB evaluation while awaiting CXR results
             - **No**
               - **Prior TB disease?**
                 - **Yes**
                   - Order CXR
                     - Read in 24 hours
                 - **No**
                   - **Documented prior positive TST or IGRA?**
                     - **Yes**
                       - Place TST
                         - TST result?
                           - **0-4 mm**
                             - CXR result?
                               - **No active TB**
                                 - Active TB
                                 - LTBI Rx
                                 - Surgical mask
                                 - TTA
                                 - PCP evaluation
                                 - Work up for TB disease
                               - **> 10 mm**
                                 - No active TB
                                 - Active TB
                                 - LTBI Rx
                                 - Surgical mask
                                 - TTA
                                 - PCP evaluation
                                 - Work up for TB disease
                           - **5-9 mm**
                             - CXR result?
                               - **No active TB**
                                 - Active TB
                                 - LTBI Rx
                                 - Surgical mask
                                 - TTA
                                 - PCP evaluation
                                 - Work up for TB disease
                             - **Active TB**
                               - LTBI Rx
                               - Surgical mask
                               - TTA
                               - PCP evaluation
                               - Work up for TB disease
                         - **No**
                           - **Suspicious active TB?**
                             - **Yes**
                               - Proceed with TB screening in the TTA and start with box A
                             - **No**
                               - **Work up for TB disease**
     - **No**
       - **Prior TB disease?**
         - **Yes**
           - Order CXR
             - Read in 24 hours
         - **No**
           - **Documented prior positive TST or IGRA?**
             - **Yes**
               - Place TST
                 - TST result?
                   - **0-4 mm**
                     - CXR result?
                       - **No active TB**
                         - Active TB
                         - LTBI Rx
                         - Surgical mask
                         - TTA
                         - PCP evaluation
                         - Work up for TB disease
                       - **> 10 mm**
                         - No active TB
                         - Active TB
                         - LTBI Rx
                         - Surgical mask
                         - TTA
                         - PCP evaluation
                         - Work up for TB disease
                   - **5-9 mm**
                     - CXR result?
                       - **No active TB**
                         - Active TB
                         - LTBI Rx
                         - Surgical mask
                         - TTA
                         - PCP evaluation
                         - Work up for TB disease
                     - **Active TB**
                       - LTBI Rx
                       - Surgical mask
                       - TTA
                       - PCP evaluation
                       - Work up for TB disease
             - **No**
               - **Order CXR**
                 - Read in 24 hours
       - **No**
         - **Order CXR**
           - Read in 24 hours

**SUMMARY**

**DECISION SUPPORT**

**PATIENT EDUCATION/SELF MANAGEMENT**

***High Risk Condition***
- Has had recent contact with a person with active TB (all contacts in a contact investigation);
- Has abnormalities on a CXR consistent with old TB disease;
- Is HIV-infected or has an unknown HIV infection status;
- Has had an organ transplant and is on transplant immunosuppression; or
- Is otherwise immunosuppressed (e.g., receiving the equivalent of ≥15 mg/day of prednisone for > one month, chemotherapy for cancer, or TNF–alpha antagonists).

- Baseline CXR is a chest x-ray taken after TB infection identified for which a reading is available in CDCR. This CXR could have been taken many years in the past. A new CXR is not necessary unless there is a positive symptom screen, new positive TB test, or if starting new LTBI.
- LTBI Rx—follow current treatment guidelines.
The Annual Patient TB Evaluation and Testing Program complies with Penal Code (PC) Sections 7570 to 7576, which mandate annual (and medically necessary) screening and evaluation of all patients for TB.

Annual evaluation for TB includes:

1) Evaluation in the birth month of each patient or as soon as possible after their birth month if screening during the birth month was not possible (e.g., patients who were OTC during their birth month).
   - Each month, institutional Public Health Nurses or their designees are responsible for using the TB registry to identify which patients need to be screened.
   - The TB registry can be sorted by patients whose annual screening is due or overdue.
   - The TB registry also indicates the type of nursing visit (Licensed Vocational Nurse [LVN] visit or Registered Nurse [RN] visit) required for each patient based on their TB status. (see below).

2) Evaluation is based on the individual patient’s TB status.

<table>
<thead>
<tr>
<th>Patient TB Status</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with no TB infection and those with TB infection that has been treated</td>
<td>LVN: screens for symptoms of TB disease.</td>
</tr>
<tr>
<td>Patients with TB infection without documented completion of TB infection treatment</td>
<td>RN: the evaluation is: &lt;ul&gt;&lt;li&gt;screening for symptoms of TB disease;&lt;/li&gt;&lt;li&gt;education on TB disease;&lt;/li&gt;&lt;li&gt;counseling to seek medical attention if they develop symptoms of TB disease; and&lt;/li&gt;&lt;li&gt;encouragement to initiate treatment for TB infection.&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
<tr>
<td>Patients currently on treatment for TB infection or TB disease</td>
<td>RN: the evaluation is: &lt;ul&gt;&lt;li&gt;screening for symptoms of TB disease;&lt;/li&gt;&lt;li&gt;education on TB disease; and&lt;/li&gt;&lt;li&gt;education on possible adverse effects of treatment and encouragement to complete treatment.&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
<tr>
<td>Patients who have TB disease that has been treated</td>
<td>RN: the evaluation is: &lt;ul&gt;&lt;li&gt;screening symptoms of TB disease; and&lt;/li&gt;&lt;li&gt;education on TB disease.&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
</tbody>
</table>

If SYMPTOMS are PRESENT patients shall:
- Wear a surgical mask;
- Be referred to a health care provider to be evaluated for active TB disease; and
- When indicated, be isolated in an airborne infection isolation room and worked up for suspect TB disease.
ANNUAL TB EVALUATION

1. TB status in birth month? (from QM registry)
   - No TB infection
   - TB infection treated
   - TB infection not treated
   - TB infection on treatment
   - TB disease on treatment
   - TB disease treated

   No TB infection: LVN visit for:
   - TB disease symptom screening
   - Record on CDCR 7331, Tuberculin Testing Evaluation Report

   TB infection treated: RN visit for:
   - TB disease symptom screening
   - Educate on TB disease
   - Counsel to seek medical attention with symptoms of TB disease
   - Encourage to initiate and complete TB infection treatment
   - Record on CDCR 7331

   TB infection not treated: RN visit for:
   - TB disease symptom screening
   - Educate on TB disease
   - Educate on possible adverse effects of treatment
   - Encourage completion of treatment
   - Record on CDCR 7331

   TB infection on treatment: RN visit for:
   - TB disease symptom screening
   - Educate on TB disease
   - Record on CDCR 7331

   TB disease on treatment: RN visit for:
   - TB disease symptom screening
   - Education on TB disease
   - Record on CDCR 7331

2. TB symptoms present?
   - Yes: Wear surgical mask
   - Refer to Health Care Provider for TB disease evaluation
   - Isolate in airborne infection isolation room and work up for suspect TB disease, when indicated
   - No: Stop
### Screening/Evaluation and Testing

**Patients returning from Out to Court (OTC), transferred from one institution to another and enrouters (Short Stay Patients), transferring to California Department of State Hospitals**

**Patients arriving for an overnight stay while en route to another institution**

#### Symptom screening:
All patients shall be screened for symptoms of active TB immediately on arrival.

**Asymptomatic**
- Patients who return from OTC (even after spending ≥ 1 night in a jail), transfer between institutions, or who are short stay patients with no known recent exposure to an active TB patient do not require testing for TB infection. [Symptom screening IS required].

**Symptoms present**
- All patients with symptoms or signs of TB (regardless of the TST result) shall wear a surgical mask and be sent to the TTA to be evaluated for active TB disease. Workup will include medical evaluation and, if clinically indicated, a CXR and sputum smears and cultures for AFB. When indicated, symptomatic patients will be isolated per clinician order.
- Contact the sending institution to obtain additional available medical information.
- HIV infected patients with symptoms suggestive of TB shall be required to wear a surgical mask and shall be evaluated by a Primary Care Provider (PCP), regardless of CXR findings.
- Any HIV infected patient with a CXR abnormality that cannot be documented as stable for 60 or more days by previous records, with the exception of an isolated calcified granuloma or apical pleural thickening, shall be isolated and evaluated by a clinician, even if asymptomatic.

#### Category “S” Patients (Category “S” patients are patients transferred into state institutions from county/city jails for reasons such as riots or an earthquake)

**Symptom screening:** All category “S” patients shall be screened for symptoms of active TB immediately upon arrival.

**Asymptomatic**
- Asymptomatic category “S” patients without known exposure to TB do not require testing for TB infection. [Symptom screening IS required].

**Symptoms present**
- All patients with symptoms or signs of TB (regardless of the TST result) shall wear a surgical mask and be sent to the TTA to be evaluated for active TB disease. Workup will include medical evaluation and, if clinically indicated, a CXR and sputum smears and cultures for AFB. When indicated, symptomatic patients will be isolated per clinician order.
- Contact the sending institution to obtain additional available medical information.
- Prior to return of the patient to his or her original place of confinement, the facility must be informed of the need to isolate the patient until active TB has been excluded.
- HIV infected patients with symptoms suggestive of TB shall be required to wear a surgical mask and shall be evaluated by a PCP, regardless of CXR findings.
- Any HIV infected patient with a CXR abnormality that cannot be documented as stable for 60 or more days by previous records, with the exception of an isolated calcified granuloma or apical pleural thickening, shall be isolated and evaluated by a clinician, even if asymptomatic.
Per Penal Code Section 7573, the Chief Medical Executive must ensure that inmates have a TB test or examination “upon incarceration and at least annually thereafter.” To ensure compliance with this penal code section in CCHCS, inmates who refuse either the TB screening on entry to CDCR, or during the CCHCS annual evaluation (during birth month) must be assessed by an RN using appropriate screening tools.

Patients with symptoms which could indicate infectious TB must be referred to a provider for evaluation. If the provider determines that the patient’s symptoms are suspicious for TB disease, the patient shall be placed in respiratory isolation and indicated tests to confirm TB shall be performed.

If the patient is reasonably suspected of being “infected with tuberculosis in an infectious stage” and the patient refuses the order for isolation, the patient shall be isolated involuntarily.

Note: Because TB infection tests (i.e., TSTs and IGRA tests) do not indicate infectiousness, patients who are TB suspects should not be involuntarily tested for TB infection.

**PREGNANT PATIENTS**

- The TST has no adverse effects on pregnancy.
- No documented episodes of fetal harm have resulted from a TST.
- Pregnancy shall not exclude a female from receiving a TST.
- Pregnant women have a greater likelihood of a false-negative TST.
- All pregnant women shall be screened for signs and symptoms of TB disease, and, if the TST is negative, the TST shall be repeated 6 to 12 weeks postpartum.
- When indicated, a CXR shall be delayed if at all possible (if there are no TB signs or symptoms) until the second trimester, and proper precautions will be taken to shield the abdomen from the effects of radiation.
- When indicated in pregnancy, the CXR shall be repeated after delivery for consideration of treatment for LTBI. *(During pregnancy and the first six weeks postpartum, the risk of progression from TB infection to TB disease is high and these patients shall be monitored closely for symptoms of TB disease.)*

**TB TESTING AND INCREASING THE DETECTION OF LTBI**

The TST is not completely specific; patients infected with other mycobacterial species or who received BCG immunization may have a reaction to the TST despite not being infected with TB. Prior BCG recipients with positive TSTs must undergo TB evaluation. The TST is also not completely sensitive in detecting TB infection; patients with active TB disease or TB infected immunocompromised patients may have a TST of 0 mm. The TST cannot be used as a sole criteria to exclude active TB as a diagnosis, but it is a useful screening test for TB infection despite these limitations.

**Use of Interferon Gamma Release Assays (IGRAs)**

IGRAs (e.g., QuantiFERON TB Gold In-tube test and T-Spot) are blood tests that can be used to detect TB infection. Some IGRAs are more specific for TB than TSTs and are thus less likely to cause a false positive reaction after infection with non-tuberculous (atypical) mycobacteria or after sensitization with BCG vaccination. However, IGRAs are NOT more sensitive than TSTs and are not more likely to detect true TB infections when used alone (or in place of a TST). IGRAs should NOT be used as confirmatory tests for TST. IGRAs can be useful in evaluating for TB infection in certain patients (e.g., those with a documented necrotic reaction to a TST, or patients who refuse a TST but are willing to have a blood test for TB infection). The CCHCS Public Health Branch should be consulted in deciding whether or not to use an IGRA test in a patient normally eligible for a TST.

**Increasing the detection of LTBI (e.g., before prescribing immunosuppressive drugs)**

Neither TSTs nor IGRAs are completely sensitive in the detection of TB infection and false negative reactions (a negative test in a person with TB infection) occur with both tests. The sensitivity of both of these tests is about the same; however, the sensitivity of detecting TB infection is increased when both tests are used. Certain clinical circumstances may warrant increased efforts to detect TB infection such as a plan to initiate immunosuppressive treatment (e.g., TNF alpha antagonists) which could result in reactivation of LTBI. Using the results of both a TST and an IGRA test can improve the detection of LTBI. The patient may be tested with both tests at the same time and, if one or both tests are positive, the patient is considered to be TB infected. Alternatively, if the patient had a recent negative TST, the IGRA test can be performed and, if the IGRA test is positive, the patient is considered TB infected. Similarly if the patient had a recent negative IGRA test, a TST can be placed and, if the TST is positive, the patient is also considered TB infected.
TB Skin Test (Mantoux): What You Should Know

Q: What is the TB Skin Test?
A: The tuberculosis (TB) skin test, sometimes called a “Mantoux,” is a simple, harmless way to find out if you have latent TB infection.

Q: What is latent TB infection?
A: There are two phases of TB. Both phases can be treated with medicine. When TB germs first enter your body, they cause latent (silent) TB infection. You will have no symptoms with latent infection. Without treatment, latent TB infection can become active TB disease. Anyone can get TB because it spreads from one person to another through the air.

<table>
<thead>
<tr>
<th>Phase 1 – Latent TB Infection</th>
<th>Phase 2 – Active TB Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB germs are “asleep” in your body. This phase can last for a long time (even many years.)</td>
<td>TB germs are active and spreading. They are damaging tissue in your body. TB disease usually affects the lungs but it may affect other organs.</td>
</tr>
<tr>
<td>You don’t look or feel sick. Your chest x-ray is usually normal.</td>
<td>You usually feel sick. Your doctor will do special tests to find where TB is harming your body.</td>
</tr>
<tr>
<td>You can’t spread TB to other people.</td>
<td>If the TB germs are in your lungs, you can spread TB to other people by coughing, sneezing, talking, or singing.</td>
</tr>
<tr>
<td>Usually treated by taking 1 or 2 medicines for 3 to 9 months.</td>
<td>Treated with 4 medicines for at least 2 months, then usually 2 medicines for at least another 4 months.</td>
</tr>
</tbody>
</table>

Q: How can I tell if I have latent TB infection?
A: A TB skin test (“Mantoux”) can show if you have latent TB infection. You could have latent TB infection if you have ever spent time close to someone with active TB disease (even if you didn’t know they were sick).

Your nurse will use a small needle to inject some harmless testing fluid (called “tuberculin”) under the skin on your arm.

Your nurse MUST check your arm 2 or 3 days after the TB skin test even if your arm looks OK to you.

If you have a reaction to the test, it will look like a raised bump. Your nurse will measure the size of the reaction. If there is a bump, it will go away in a few weeks.
**TB Skin Test ( Mantoux): What You Should Know (Cont.)**

### Q: How do I take care of my arm after the TB skin test?

**A:**
- Don’t cover the spot with a bandage or tape.
- Be careful not to rub it or scratch it.
- If the spot itches, put a cold cloth on it.
- You can wash your arm and dry it gently.

### Q: What if my TB skin test is negative?

**A:** The test is “negative” if there is no bump (or only a very small bump) at the spot where the fluid was injected. Sometimes the site will appear red, however the nurse does not count redness as “positive.” Only the raised, hardened bump will be measured and counted. A negative TB skin test usually means that you don’t have TB infection or disease. In some situations, you may need to have another TB skin test later.

### Q: What if my TB skin test is positive?

**A:** The test is “positive” if there is a bump of a certain size where the fluid was injected. This means you probably have TB germs in your body. Most people with a positive TB skin test have latent TB infection. To be sure, your doctor will examine you and give you a chest x-ray. You may need other tests to see if you have active TB disease.

### Q: You should have a TB skin test if you:

**A:**
- Work or live in a prison, nursing home, clinic, hospital, homeless shelter;
- Have had frequent close contact with someone who has active TB disease;
- Have lived in a country where many people have TB; or
- Have HIV infection or certain other health problems.

### Q: What if I’ve had BCG vaccine?

**A:**
- Even if you have had BCG vaccine, you can have a TB skin test.
- People who have had BCG vaccine still can get latent TB infection and active TB disease.
- BCG vaccine may help protect young children from getting very sick with TB. This protection goes away as people get older.
- BCG vaccine may sometimes cause a positive TB skin test reaction. However, if you have a positive reaction to the TB skin test, it probably is from TB germs in your body - not from your BCG vaccine.
P: ¿Qué es la prueba cutánea para detectar la tuberculosis?
R: La prueba cutánea para detectar la tuberculosis (TB), a veces denominada “Mantoux,” es una manera sencilla e inocua de averiguar si tiene una infección latente de TB.

P: ¿Qué es una infección latente de TB?
R: La TB tiene dos fases. Ambas fases se pueden tratar con medicina. Cuando los gérmenes de la TB entran por primera vez a su cuerpo, causan la infección latente de TB (silenciosa). Este tipo de infección no produce síntomas. Sin tratamiento, la infección latente de TB puede convertirse en la enfermedad activa de TB. Cualquier persona puede contraer la TB, porque se propaga de una persona a otra a través del aire.

<table>
<thead>
<tr>
<th>Fase 1 – Infección latente de TB</th>
<th>Fase 2 – Enfermedad activa de TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los gérmenes de la TB están “dormidos” en su cuerpo. Esta fase puede durar mucho tiempo (incluso muchos años.)</td>
<td>Los gérmenes de la TB están activos y propagándose. Están dañando los tejidos en su cuerpo. La enfermedad de TB generalmente afecta los pulmones pero puede afectar otros órganos.</td>
</tr>
<tr>
<td>No se ve ni se siente enfermo. Una radiografía del tórax es generalmente normal.</td>
<td>Generalmente se siente enfermo. Su médico le hará exámenes especiales para encontrar dónde la TB está dañando su cuerpo.</td>
</tr>
<tr>
<td>No puede propagar la TB a otras personas.</td>
<td>Si los gérmenes de la TB están en sus pulmones, puede propagar la TB a otras personas al toser, estornudar, hablar o cantar.</td>
</tr>
<tr>
<td>Normalmente, el tratamiento consiste en tomar 1 o 2 medicinas durante 3 o 9 meses.</td>
<td>Se trata con 4 medicinas durante por lo menos 2 meses, luego 2 medicinas durante por lo menos 4 meses más.</td>
</tr>
</tbody>
</table>

P: ¿Cómo puedo saber si tengo la infección latente de TB?
R: Una prueba cutánea de TB (“Mantoux”) puede mostrar si tiene la infección latente de TB. Podría tener la infección latente de TB si alguna vez ha pasado un tiempo cerca de alguien con la enfermedad activa de TB (incluso si no sabía que la persona estaba enferma).

Su enfermera utilizará una aguja pequeña para inyectar un líquido de prueba inocuo (llamado “tuberculina”) bajo la piel de su brazo.

La enfermera DEBE revisar su brazo 2 o 3 días después de la prueba cutánea de TB aun si a usted le parece bien el brazo.

Si tiene una reacción a la prueba, se verá como un abultamiento. La enfermera medirá el tamaño de la reacción. Si hay un abultamiento, desaparecerá dentro de unas semanas.
¿Qué sucede si mi prueba cutánea de TB es negativa?
La prueba es “negativa” si no hay abultamiento (o solo un abultamiento muy pequeño) en el sitio donde se inyectó el fluido. Una prueba cutánea negativa de TB generalmente significa que no tiene la infección o enfermedad de TB.

En algunas situaciones, es posible que necesite otra prueba cutánea de TB más adelante.

¿Qué sucede si mi prueba cutánea de TB es positiva?
La prueba es “positiva” si hay abultamiento de cierto tamaño en el sitio donde se inyectó el fluido. Esto significa que probablemente tiene los gérmenes de TB en su cuerpo. La mayoría de las personas con una prueba cutánea de TB positiva tienen una infección latente de TB. Para estar seguro, su médico lo examinará y le hará una radiografía del tórax. Es posible que necesite otras pruebas para ver si tiene la enfermedad activa de TB.

Debe realizarse una prueba de TB si:
- Trabaja o vive en una prisión, un hogar de ancianos, una clínica, un hospital, o un refugio para desamparados;
- Ha tenido contacto cercano frecuente con alguien que tiene la enfermedad activa de TB;
- Ha vivido en un país donde mucha gente tiene TB; o
- Tiene la infección por VIH o algunos otros problemas de salud.

¿Y si ya me he aplicado la vacuna BCG?
- Aunque haya recibido la vacuna BCG, se le puede realizar la prueba cutánea de TB.
  - Las personas que han recibido la vacuna BCG todavía pueden contraer la infección latente de TB y la enfermedad activa de TB.
  - La vacuna BCG puede ayudar a proteger a los niños de enfermarse gravemente con TB. Esta protección desaparece a medida que las personas envejecen.
  - La vacuna BCG a veces puede causar una reacción positiva de la prueba cutánea de TB. Sin embargo, si tiene una reacción positiva a la prueba, probablemente es debido a los gérmenes de TB que tiene en el cuerpo, y no a la vacuna BCG.