

**SUMMARY**

**DECISION SUPPORT**

**PATIENT EDUCATION/SELF MANAGEMENT**

**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. Encourage latent TB infection treatment to prevent development of TB disease (If latent TB infection 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 latent TB infection treatment to prevent development of TB disease

**ALERTS**

- Identify all symptomatic patients
- Monitor newly infected patients for development of symptoms
- Ensure treatment for TB infection is offered to all infected patients

**DIAGNOSTIC CRITERIA/EVALUATION**

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

**INTERFERON-GAMMA RELEASE ASSAYS (IGRA) TEST** (standard method in CCHCS for detection of TB infection, recent or past): IGRA tests (e.g., QuantiFERON TB Gold In-tube test and T-Spot) are blood tests that can be used to detect TB infection.

- More specific for TB than TST's and thus less likely to cause false positive reaction after infection with non-TB (atypical) mycobacteria or after sensitization with Bacillus Calmette-Guérin (BCG) vaccination.
- Not more sensitive than TST's.
- Not more likely to detect true TB infections when used alone or in place of a TST.
- Should not be used as a confirmatory test for TST.
- If a patient refuses an IGRA test, a TST can be performed.

**TUBERCULIN SKIN TEST (TST)** (alternative 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) test instead of TST.
- Pregnancy, lactation, or previous BCG vaccinations are not contraindications for a TST.

**HIGH RISK CONDITION (High risk of developing TB disease):**

- Recent contact with a person with active TB (all contacts in a contact investigation).
- Abnormalities on a chest x-ray (CXR) consistent with old TB disease.
- 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  $\geq 15$  mg/day of prednisone for  $\geq$  one month, chemotherapy for cancer, or tumor necrosis factor [TNF] alpha antagonists).

**POSITIVE TST:**

- Induration of  $\geq 5$  mm for patients with a high risk condition.
- Induration of  $\geq 10$  mm for all others.

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## DIAGNOSTIC CRITERIA/EVALUATION CONTINUED

EXCLUSION FROM TESTING:

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

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

RECENT TB INFECTION: TB infection occurring in the past 2 years.

- Known recent exposure to a TB case and a positive IGRA test or a new  $\geq 5$  mm TST (these patients are most often identified during a contact investigation), or
- Positive IGRA test or a positive TST on arrival at reception ( $\geq 5$  mm induration with a high risk condition [e.g., immunocompromised] or  $\geq 10$  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.

CHEST RADIOGRAPH (CXR) indicated for:

- Newly positive IGRA test or a newly positive TST.
- Any patient with a documented prior positive IGRA test or prior positive TST on arrival at reception center (not a transfer from another CDCR institution).
- Any patient prior to starting treatment for TB infection (even if remotely infected and asymptomatic).
- 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
<ul style="list-style-type: none"> <li>• Upon arrival at reception center.</li> <li>• During annual screening.</li> <li>• Transfers between institutions and category S (short stays from other agencies).</li> <li>• Returns from out to court (OTC).</li> <li>• Before transfer to California Department of State Hospitals.</li> </ul>
IGRA TEST
<ul style="list-style-type: none"> <li>• Upon arrival at a reception center, unless documented negative IGRA test or negative TST (&lt; 5 mm with high risk condition, &lt; 10 mm for all others) in prior 30 days or documentation of TB infection (positive IGRA test or positive TST).</li> <li>• For clinical assessment of symptoms consistent with TB, if no documented prior positive IGRA test or positive TST.</li> <li>• In the context of a TB exposure (contact investigation).</li> </ul>

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## SCREENING/EVALUATION AND TESTING

## RECEPTION CENTER SCREENING FOR TB

**Symptom screening:** All patients shall be screened for symptoms of active TB on the day of arrival.

**SYMPTOMS PRESENT**

- All patients with symptoms or signs of TB (regardless of the IGRA test or 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 IGRA test or negative TST or unknown or inadequate documentation of TB infection status shall:

- Have an IGRA test drawn at a Reception Center.
- IGRA test is not indicated for:
  - ⇒ Documented history of an IGRA test interpreted as positive (any time in the past).
  - ⇒ Documented TST with mm reading interpreted as 'positive' at any time in the past.
  - ⇒ 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.

**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 FOR POSITIVE TESTS**

Patients with a new positive IGRA test or TST (patients with a positive IGRA test or a TST of 5 - 9 mm with risk factors, and patients with a TST of  $\geq 10$  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 latent TB infection.

CXR for asymptomatic patients with no known history of active TB disease		
TST (mm)	High Risk condition*	CXR recommendation
0 - $\leq$ 4 mm	Not Applicable	No CXR
5 - 9 mm	Yes	Obtain CXR to evaluate for TB disease
5 - 9 mm	No	No CXR
$\geq 10$ mm	Not Applicable	Obtain CXR 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  $\geq 15$  mg/day of prednisone for  $\geq$  one month, chemotherapy for cancer, or TNF alpha antagonists).

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

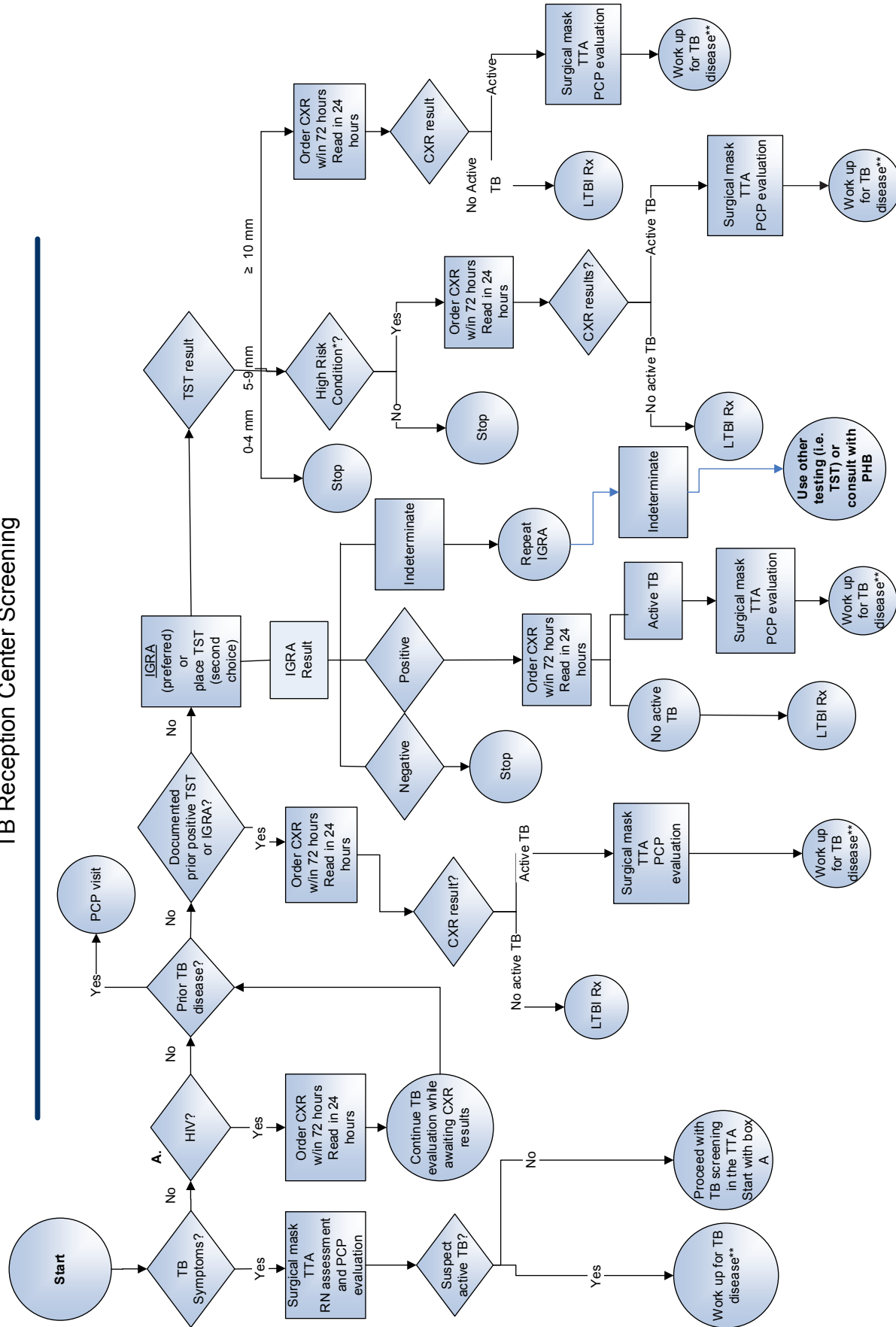
- ⇒ If the CXR has abnormalities consistent with TB or if the CXR is normal but the patient has symptoms consistent with TB, the patient should wear a surgical mask and be sent to the TTA to be evaluated for TB disease. Treatment for latent TB infection should be delayed until TB disease has been ruled 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 latent TB infection 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 IGRA test or positive TST— Patients with written documentation of a positive IGRA test or a positive TST with a written record of a mm read and a positive interpretation ( $\geq 5$ mm with risk factors or  $\geq 10$  mm without risk factors) shall:

- ⇒ Be encouraged to accept treatment for latent TB infection 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 being encouraged to accept latent TB infection 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



**\*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  $\geq 15$  mg/day of prednisone for  $\geq$  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.

\*\*Work up for TB disease – Medical evaluation, CXR, sputum smears and cultures for acid fast bacilli.

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## ANNUAL EVALUATION FOR TB

*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:

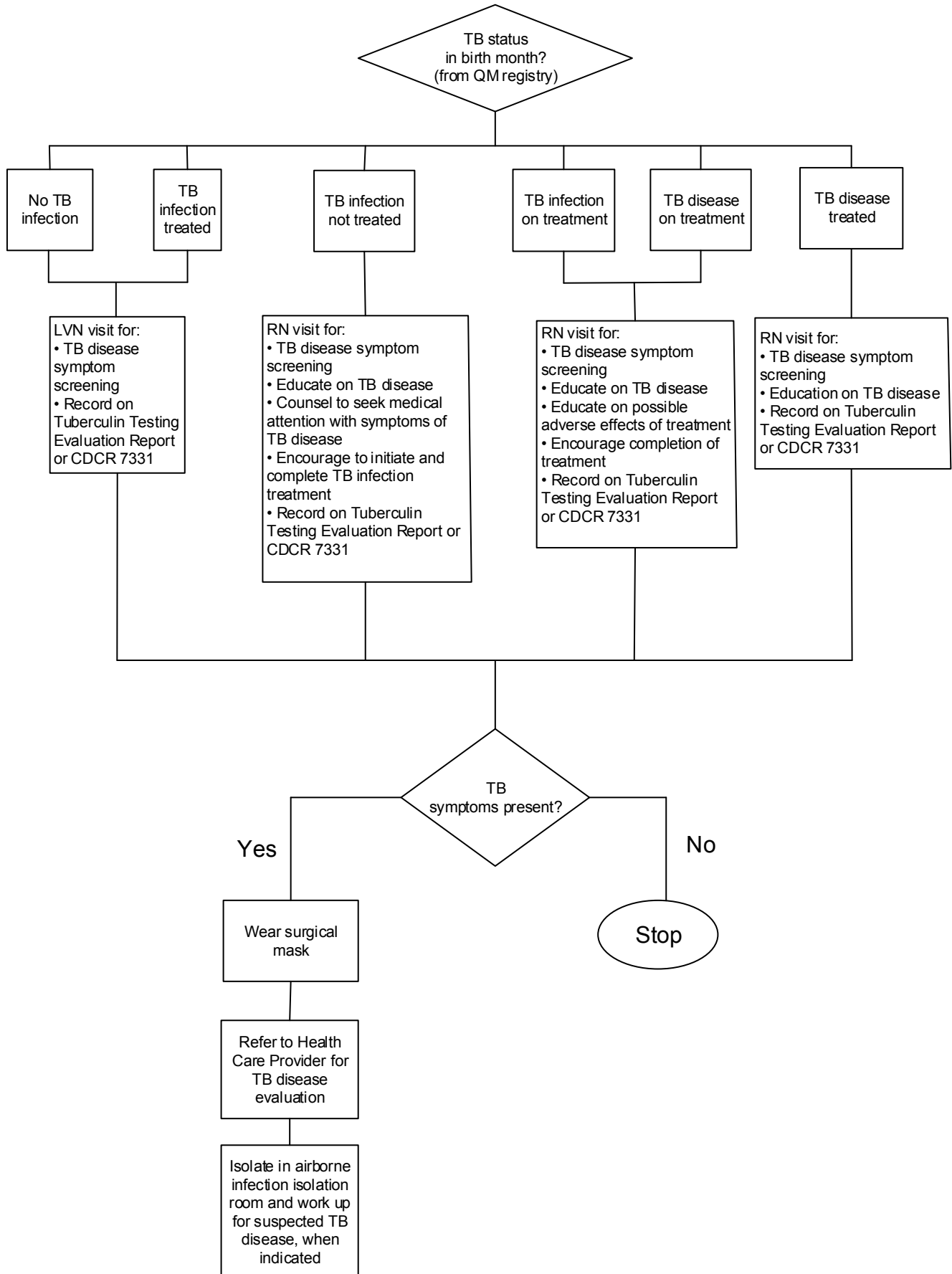
- 1) Evaluation in the birth month of each patient or as soon as possible after their birth month if screening during the birth month was not possible (e.g., patients who were OTC during their birth month).
  - Each month, institutional Public Health Nurses or their designees are responsible for using 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.

Patient TB Status	Required
Patients with <b>no TB infection</b> and those with <b>TB infection that has been treated</b>	LVN: screens for symptoms of TB disease.
Patients with <b>TB infection without documented completion of TB infection treatment</b>	RN: the evaluation is: ⇒ Screening for symptoms of TB disease; ⇒ Education on TB disease; ⇒ Counseling to seek medical attention if they develop symptoms of TB disease; and ⇒ Encouragement to initiate treatment for TB infection.
Patients currently <b>on treatment for TB infection or TB disease</b>	RN: the evaluation is: ⇒ Screening for symptoms of TB disease; ⇒ Education on TB disease; and ⇒ Education on possible adverse effects of treatment and encouragement to complete treatment.
Patients who have <b>TB disease that has been treated</b>	RN: the evaluation is: ⇒ Screening symptoms of TB disease; and ⇒ Education on TB disease.

**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 suspected TB disease.

## ANNUAL TB EVALUATION





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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  $\geq 1$  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 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 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 disease 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.

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## INVOLUNTARY ISOLATION FOR PATIENTS WHO MAY HAVE TB DISEASE

Per Penal Code Section 7573, the Chief Medical Executive must ensure that patients have an examination or test for TB “upon incarceration and at least annually thereafter.” To ensure compliance with this penal code section in CCHCS, patients 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 TB 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., IGRA tests and TST’s) do not indicate infectiousness, patients who are TB suspects should not be involuntarily tested for TB infection.

## PREGNANT PATIENTS

- The IGRA test or TST has no adverse effects on pregnancy.
- No documented episodes of fetal harm have resulted from an IGRA test or TST.
- Pregnancy shall not exclude a female from receiving an IGRA test or 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 latent TB infection. *(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.)*

## INCREASING THE DETECTION OF LATENT TB INFECTION BEFORE PRESCRIBING IMMUNOSUPPRESSIVE DRUGS

Increasing the detection of latent TB infection (e.g., before prescribing immunosuppressive drugs)

Neither TSTs nor IGRA tests 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 latent TB infection.

Using the results of both a TST and an IGRA test can improve the detection of latent TB infection. 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.

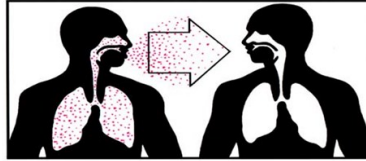
Alternatively, if the patient had a recent negative TST, the IGRA test can be performed and, if the IGRA test is positive, the patient is considered TB infected. Similarly if the patient had a recent negative IGRA test, a TST can be placed and, if the TST is positive, the patient is also considered TB infected.



## TB ELIMINATION: INTERFERON-GAMMA RELEASE ASSAYS (IGRAs) - BLOOD TESTS FOR TB INFECTION

### Q: What are IGRAs?

**A:** Interferon-Gamma Release Assays (IGRAs) are blood tests that can determine if a person has been infected with TB bacteria. An IGRA test measures how strong a person's immune system reacts to TB bacteria by testing the person's blood in a laboratory.



### Q: How do they work?

**A:** Blood is collected into special tubes using a needle. The blood is delivered to the laboratory and the results are reported to your health care provider.

### Q: What does a positive or negative IGRA test result mean?

**A:** A positive IGRA test means the person has been infected with TB bacteria. Additional tests are needed to determine if the person has TB infection or TB disease. A health care provider will then provide treatment as needed. A negative IGRA test means the person's blood did not react to the test and that latent TB infection or TB disease is not likely.

### Q: Who can receive an IGRA test?

**A:** Anyone can have an IGRA test instead of a TB skin test (TST). A person should have either a TST or an IGRA test, but not both. There are rare exceptions when results from both tests may be useful in deciding whether a person has been infected with TB. Your health care provider can decide when having both tests might be useful.

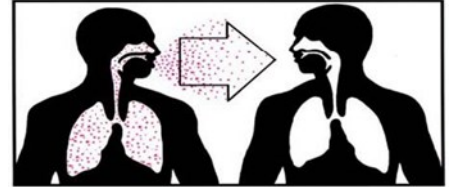
### Q: How often can an IGRA test be given?

**A:** There is no problem with repeated IGRA tests.

## 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?**

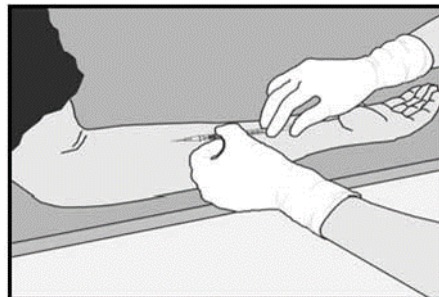
**A:** There are two phases of TB. Both phases can be treated with medicine. When TB germs first enter your body, they cause latent (silent) TB infection. You will have no symptoms with latent infection. Without treatment, latent TB infection can become active TB disease. Anyone can get TB because it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

Phase 1 – Latent TB Infection	Phase 2 – Active TB Disease
TB germs are “asleep” in your body. This phase can last for a long time (even many years).	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.
You don’t look or feel sick. Your chest x-ray is usually normal.	You usually feel sick. Your doctor will do special tests to find where TB is harming your body.
You can’t spread TB to other people.	If the TB germs are in your lungs, you can spread TB to other people by coughing, sneezing, talking, or singing.
Usually treated by taking 1 or 2 medicines for 3 to 9 months.	Treated with 4 medicines for at least 2 months, then usually 2 medicines for at least another 4 months.

**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?**

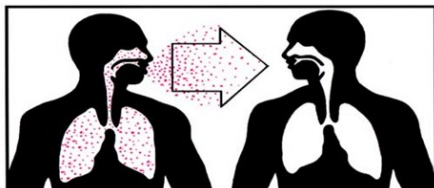
**A:**

- 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.

## ELIMINACIÓN DE LA TUBERCULOSIS (TB): ENSAYO DE LIBERACIÓN DE INTERFERÓN GAMMA (IGRA) – LOS ANÁLISIS DE SANGRE PARA LA INFECCIÓN DE TB

### **P: ¿Qué son los ensayos de liberación de interferón gamma (IGRA)?**

**R:** Un ensayo de liberación de interferón gamma (IGRA) es un análisis de sangre que puede determinar si una persona ha sido infectada con la bacteria de la TB. Un análisis IGRA mide qué tan fuerte reacciona el sistema inmunológico de una persona a las bacterias de la TB al analizar la sangre de la persona en un laboratorio.



### **P: ¿Cómo funcionan los análisis IGRA?**

**R:** Un miembro del personal médico recogerá su sangre en tubos especiales con una aguja. La sangre será enviada al laboratorio y los resultados serán reportados a su proveedor de atención médica.

### **P: ¿Qué significa un resultado positivo o negativo a un análisis IGRA?**

**R:** Un resultado positivo a un análisis IGRA significa que la persona ha sido infectada con la bacteria de la TB. Se necesitan pruebas adicionales para determinar si la persona tiene una infección de TB o la enfermedad de TB. Un proveedor de atención médica proporcionará tratamiento según sea necesario. Un resultado negativo a un análisis IGRA significa que la sangre del individuo no tuvo una reacción al análisis y es probable que la persona no tenga una infección de TB o la enfermedad de TB.

### **P: ¿Quién puede recibir un análisis IGRA?**

**R:** Cualquier persona puede recibir un análisis IGRA en vez de una prueba cutánea para detectar la TB. Una persona debe tener una prueba cutánea para detectar la TB o un análisis IGRA, pero no ambas. Existen raras excepciones cuando los resultados de ambas pruebas pueden ser útiles para decidir si una persona ha sido infectada con la TB. Su proveedor de atención médica puede decidir si tener ambas pruebas podría ser útil.

### **P: ¿Con qué frecuencia puede hacerse un análisis IGRA?**

**R:** No hay problema con los repetidos análisis IGRA.

## RESUMEN

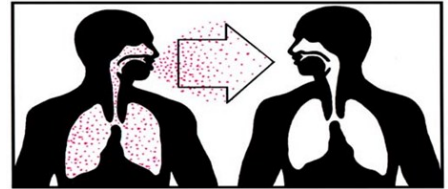
## APOYO PARA TOMAR DECISIONES

## EDUCACIÓN PARA EL PACIENTE/CONTROL PERSONAL DEL CASO

## PRUEBA CUTÁNEA PARA DETECTAR LA TUBERCULOSIS (MANTOUX): LO QUE DEBE SABER

**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?**

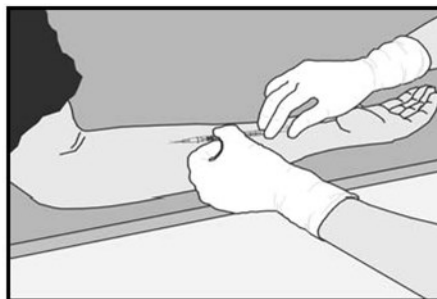
**R:** La TB tiene dos fases. Ambas fases se pueden tratar con medicina. Cuando los gérmenes de la TB entran por primera vez a su cuerpo, causan la infección latente de TB (silenciosa). Este tipo de infección no produce síntomas. Sin tratamiento, la infección latente de TB puede convertirse en la enfermedad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

Fase 1 – Infección latente de TB	Fase 2 – Enfermedad activa de TB
Los gérmenes de la TB están “dormidos” en su cuerpo. Esta fase puede durar mucho tiempo (incluso muchos años).	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.
No se ve ni se siente enfermo. Una radiografía del pecho es generalmente normal.	Generalmente se siente enfermo. Su médico le hará exámenes especiales para encontrar dónde la TB está dañando su cuerpo.
No puede propagar la TB a otras personas.	Si los gérmenes de la TB están en sus pulmones, puede propagar la TB a otras personas al toser, estornudar, hablar o cantar.
Normalmente, el tratamiento consiste en tomar 1 o 2 medicinas durante 3 o 9 meses.	Se trata con 4 medicinas durante por lo menos 2 meses, luego 2 medicinas durante por lo menos 4 meses más.

**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.

RESUMEN	APOYO PARA TOMAR DECISIONES	EDUCACIÓN PARA EL PACIENTE/CONTROL PERSONAL DEL CASO
<b>PRUEBA CUTÁNEA PARA DETECTAR LA TB (MANTOUX): LO QUE DEBE SABER (CONT.)</b>		
<p><b>P: ¿Cómo debo cuidar mi brazo después de la prueba cutánea de TB?</b></p> <p><b>R:</b></p> <ul style="list-style-type: none"> <li>• No cubra el sitio de la inyección con un vendaje o adhesivo.</li> <li>• Tenga cuidado de no frotarlo ni rascarlo.</li> <li>• Si le da comezón, ponga un paño frío en el sitio.</li> <li>• Puede lavarse el brazo y secarlo suavemente.</li> </ul>		
<p><b>P: ¿Qué sucede si mi prueba cutánea de TB es negativa?</b></p> <p><b>R:</b> 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.</p> <p>En algunas situaciones, es posible que necesite otra prueba cutánea de TB más adelante.</p>		
<p><b>P: ¿Qué sucede si mi prueba cutánea de TB es positiva?</b></p> <p><b>R:</b> 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 pecho. Es posible que necesite otras pruebas para ver si tiene la enfermedad activa de TB.</p>		
<p><b>P: Debe realizarse una prueba de TB si:</b></p> <p><b>R:</b></p> <ul style="list-style-type: none"> <li>• Trabaja o vive en una prisión, un hogar de ancianos, una clínica, un hospital, o un refugio para desamparados;</li> <li>• Ha tenido contacto cercano frecuente con alguien que tiene la enfermedad activa de TB;</li> <li>• Ha vivido en un país donde mucha gente tiene TB; o</li> <li>• Tiene la infección por VIH o algunos otros problemas de salud.</li> </ul>		
<p><b>P: ¿Y si ya me he aplicado la vacuna BCG?</b></p> <p><b>R:</b></p> <ul style="list-style-type: none"> <li>• Aunque haya recibido la vacuna BCG, se le puede realizar la prueba cutánea de TB.</li> <li>• Las personas que han recibido la vacuna BCG todavía pueden contraer la infección latente de TB y la enfermedad activa de TB.</li> <li>• La vacuna BCG puede ayudar a proteger a los niños de enfermarse gravemente con TB. Esta protección desaparece a medida que las personas envejecen.</li> <li>• 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.</li> </ul>		