

Tennessee Department of Health TB Elimination Program

INSTRUCTIONS FOR COMPLETING THE RISK ASSESSMENT TOOL (TB RAT)

Purpose of the TB RAT:

- To serve as a guide to educate the patient about key issues concerning Tuberculosis (TB)/TB Infection (TBI)
- To determine a patient's individualized risk for TB/TBI
- To serve as documentation that counseling and risk assessment was accomplished
- A method to report findings from the assessment (i.e., # of high-risk patients tested, etc.)

Who should be assessed with the TB RAT?

- All cases
- All contacts
- Anyone requesting a skin test. NOTE: Anyone requesting a test required for employment or school admission should be offered screening with the TB RAT with the explanation given that a test for TB infection (TST or IGRA) may not be indicated if the person is "low-risk." Documentation will be provided to the patient regarding his/her status as "low-risk."
- Anyone with TB symptoms or with TB infection risk factors
- Persons referred for a positive TST or IGRA placed outside of the health department (HD)
- All foreign-born individuals from TB-endemic countries (see list in PHN protocol)
- Anyone you feel who would benefit from TB education and individualized assessment (i.e., patient who may have risk of TB infection)

When should the TB RAT be repeated?

Any time a full assessment for **NEW** TB symptoms, medical conditions and exposure and/or progression risk factors has been performed and appropriate education has been provided, TB Supplemental Screen (TBS) can be documented (RVUs earned).

NOTE: The TB RAT should be completed by persons **TRAINED** by TB staff to **EDUCATE** and **ASSESS** the patient concerning TB and related issues. The patient should **NOT** be asked to complete this form him/herself. **ALL TB RATs MUST BE ENTERED INTO PTBMIS THE DAY THEY ARE ADMINISTERED.** If it is not possible to enter the TB RAT the day it was administered (i.e. TB RAT is administered off-site), the TB RAT must be entered into PTBMIS within **3 working days.** All patient encounters and TB RATs should be backdated to the date the service was performed.

COMPLETING THE TB RAT:

- In PTBMIS, all questions on the TB RAT should be answered as yes/no or with appropriate answers. **Do not leave any blanks.** PTBMIS will not accept blank answers and will convert most blank responses to “N.”
- Each region can decide whether to enter the TB RAT directly into PTBMIS and not use the paper TB RAT for patients served at the health department. NOTE: Hard copy TB RATs will still need to be used for patients served in the community.
- The provider who administers the TB RAT must record their provider number on the TB supplemental screen in PTBMIS. There is no place on the paper TB RAT to record the provider number.
- A comments field is available in PTBMIS to record any results.

The TB RAT is organized into six sections. **It is very important that you ask the patient all questions on the TB RAT.**

A. DEMOGRAPHICS:

A. DEMOGRAPHICS (place PTBMIS label here):	
Name (Last, First, MI): _____	Hispanic: Y N
Date of birth (mm/dd/yyyy): ____/____/____	Home/cell phone: (____) _____ - _____
Race: W B A P N O (specify): _____	Work phone: (____) _____ - _____
Gender: M F	Insurance/Medicaid: _____
Home address: _____	Occupation/Employer: _____
SS#: _____ - _____ - _____	Country of residence: _____
	Country of origin: _____
	Primary language: _____
	Month/year of US entry (mm/yyyy): ____/____

The data in this section are required for PTBMIS registration. For paper TB RATs, **place a PTBMIS label over the top left side of the demographics section on each page of the TB RAT.** Please do not cover up the items not included on the label. On the TB supplemental screen (TBS) all of the demographic information is pulled from the registration screen. If you notice anything incorrect on the demographic section of the TBS, you must go back to the registration screen to correct this.

1. **NAME:** Emphasize to each patient the importance of using the same name for all health department visits. Assure confidentiality and remind the patient that their names are recorded for health department records only. Inquire about other aliases that the patient may currently be using or may have used at the health department or place of employment. If other alias/names used, record in comment section.
2. **DATE OF BIRTH:** Encourage patient to give an accurate date. Record the month, day and year the patient was born (mm/dd/yyyy).
3. **RACE:** *Race and ethnicity are not the same.* For example, for reporting purposes, “Hispanic” is not considered a race, but an ethnicity.

All patients should be identified with the appropriate “Race” and “Hispanic Y/N” and Country of Origin.

NOTE: No one should assign someone's race based on physical characteristics. In order to determine race, ask each patient:

“Which race do you identify with?”

W = White

A = Asian

N = Native American

B = Black

P = Pacific Islander

O = Other **

**The “O = Other” category should be reserved for individuals who either consider themselves multi-racial, or do not report race as one of the above five categories. Remind the patient that his/her *ethnicity* will be recorded by the Hispanic category and by Country of Origin. Patients who are Hispanic in most cases should be recorded as “White” or “Black” race, not “Other.”

Examples:

- Patients from India, Middle East, China, Japan are considered **Asian**
- Hispanics are typically considered **White** unless the patient reports being **Black**
- Patients from Guam, New Zealand, Samoa and the Marshal Islands are considered **Pacific Islanders**

4. **GENDER:** Record the patient's gender at birth. M = male, F = female
5. **HOME ADDRESS:** Use the address where the patient can be contacted if needed (i.e. emergencies).
6. **SS# (Social Security Number):** Some patients will not have a social security number and some may offer fictitious numbers. Reassure patient that this information will only be used as a way to identify him/her at the health department and is also confidential. If the patient does not have a social security number, record the number as 999-99-9999.
7. **HISPANIC:** If the patient is Hispanic indicate “Y”, if they are not Hispanic indicate “N.” Hispanic is an ethnicity and not a race.
8. **HOME/CELL PHONE:** Record a current phone number that can be used to reach the patient (###) ###-####.
9. **WORK PHONE:** Record a current work phone number (if applicable) that can be used to reach the patient (###) ###-####.
10. **INSURANCE/MEDICAID:** Indicate the type of insurance the patient has (i.e. TennCare, Blue Cross Blue Shield, John Deere, Veterans /Military benefits etc). If the patient does not have insurance, indicate “none.” Some services can be billed to the patient's insurance. See codes manual for more details.
11. **OCCUPATION/EMPLOYER:** Record the current occupation and employer at time of TB RAT screening.
12. **COUNTY OF RESIDENCE:** Record the county that the patient resides in.
13. **COUNTRY OF ORIGIN:** Record the patient's country of birth. NOTE: Some refugees are born in one country but actually arrive in the U.S. from another country. Stress that this is the actual country of birth.

14. **PRIMARY LANGUAGE:** Record the language the patient prefers to use during a medical encounter.
15. **MONTH/YEAR OF U.S. ENTRY:** For foreign-born patients, record the month and year (mm/yyyy) that the patient **first** arrived in the U.S. Do not enter a foreign-born patient's date of birth in this field. If the patient is U.S.-born leave this section blank. If the patient is foreign-born and does not remember when he/she entered the U.S., code "01/1900."

<FOR TARGETED TESTING USE ONLY>

<i><For targeted testing use only></i>		Site type: _____
Site name: _____		Site #: _____
Site address: _____		Site contact person: _____
Site county: _____		Site contact phone: () - _____

Paper TB RATs: The boxed area on the TB RAT tool is only for use when screening for TB infection is done at a community site. After a community screening, the *community site patient number* will be established when the data is entered in a "community record" in PTBMIS, just as a patient number is established when an individual chart is opened. Risk assessment tools filled out on patients screened in the community should have all fields listed in the boxed area completed (i.e., name of community site, community site patient number, contact person, etc.).

TB Supplemental Screen (TBS): If the patient was screened at a community site, indicate "Y" after "Community Site" on the TB supplemental screen.

B. RISK FACTORS FOR TB EXPOSURE¹:

B. RISK FACTORS FOR TB EXPOSURE		
Y N Foreign-born, high risk areas (<i>see list in PHN protocol</i>)		Has the patient ever:
Y N Congregate setting ever (<i>circle</i>):		Y N Been homeless
Correctional (yr) _____ Homeless shelter (yr) _____		Y N Been a high-risk health care worker
Long-term care (yr) _____		Y N Injected drugs
Y N Close TB contact (yr): _____		Y N Used non-injecting drugs
Y N Child around adult with TB risk factor		Y N Had excessive alcohol use/abuse
		Y N Traveled/resided in high-risk area (yr) _____

- FOREIGN-BORN, HIGH-RISK AREAS:** Includes immigrants and refugees born in foreign countries with high rates of TB infection. See country list in Public Health Nursing Protocol 3.460.
- CONGREGATE SETTING (ever):** Includes persons who have **ever** lived, worked or volunteered in one of these high-risk settings: correctional facilities (**See Appendix A**), homeless shelters, or long-term care facilities (**See Appendix B**). Record the year (yyyy) the patient was a resident, staff, or volunteer of the congregated setting. **IGRAs are not to**

¹ CDC. Updated Guidelines for using Interferon Gamma Release Assays to Detect *Mycobacterium tuberculosis* Infection—United States, 2010. *MMWR* 2010; 55 (No. RR-5, 3, Boxes 1 and 2)

be done on employees, residents, or volunteers of congregate settings who require annual testing.

- a. Patients requesting TST or IGRA testing required by his/her employer should be offered screening with the TB with the explanation given that a test for TB infection (TST or IGRA) may not be indicated if the patient is “low-risk.” Documentation will be provided to the patient regarding his/her status as “low-risk.” No employment testing is to be provided as part of the TB Program.
 - b. Children/youth in DCS custody residing in a congregate care setting (who require testing annually as long as the child/youth remains in the congregate care setting) should not receive an IGRA for the annual testing.
3. **CLOSE TB CONTACT:** Individual who has shared air with a person with infectious TB and is at high-risk of developing infection with *M. tuberculosis* because of the length of time, frequency or environmental settings of their exposure (i.e., close, prolonged contact). Generally includes family members, roommates and housemates, close friends, co-workers, and classmates. List year of exposure (yyyy).
4. **CHILD AROUND ADULT WITH TB RISK FACTOR:** Includes children who spend a significant amount of time around an adult with any **risk factor for TB exposure** listed in this section. *Example: a child who is born in the U.S., but has foreign-born parents.* Does not include exposure to adults with risk factors for progression to TB disease such as diabetes.

NOTE: Patients in the following groups should receive an initial test for TB if they meet any of the criteria. These patients should be screened using the TB RAT for symptoms and new risk factors for exposure or progression upon subsequent visits. If no new risk factors are present, testing for TB should not be done. If patients in these groups return frequently to the health department, annual testing is recommended (unless new risk factors are identified within the year timeframe).

5. **BEEN HOMELESS (ever):** It is important to test all patients who are currently homeless or have been homeless within the past year. Depending on the individual’s history, a provider may determine that a person who was homeless more than one year ago is at high risk for TB disease or infection and should be tested. A homeless person may be an individual who:
- Has no fixed, regular, and adequate nighttime residence and a primary nighttime residence that is
 - A supervised publicly or privately operated shelter designed to provide temporary living accommodations, including welfare hotels, congregate shelters, and transitional housing for the mentally ill **or** an institution that provides a temporary residence for individuals intended to be institutionalized **or** a public or private place not designated for , or ordinarily used as, a regular sleeping accommodations for human beings

OR

- Has no home (e.g., is not paying rent, does not own a home, and is not steadily living with relatives or friends). Persons in unstable housing situations (e.g., alternating between multiple residences for short stays of uncertain duration) may also be considered homeless

OR

- Lacks customary and regular access to a conventional dwelling or residences. Included as homeless are persons who live on streets or in nonresidential buildings. Also included are residents of homeless shelters for battered women. Residents of welfare hotels and single room occupancy (SRO) hotels could also be considered homeless. In a rural setting, where there are usually few shelters, a homeless person may live in non-residential structures, or substandard housing, or with relatives. Homeless does not refer to a person who is imprisoned or in a correctional facility.

6. **BEEN A HIGH-RISK HEALTH CARE WORKER (ever):** Under current CDC guidelines, high-risk health care workers (HCWs) are those who serve patients at high risk and/or those with unprotected exposure to a patient with TB disease before the identification and correct airborne precautions of the patient. This category may be coded as “yes” if the patient has ever been a high-risk health care worker and not received a skin test since they were employed. **Local Health Departments (LHDs) should not draw IGRAs on health-care workers who require annual testing.**

- **Patients requesting TST or IGRA testing required for employment or school admission should be offered screening with the TB RAT with the explanation given that a test for TB infection (TST or IGRA) may not be indicated if the person is “low-risk.” Documentation will be provided to the patient regarding his/her status as “low-risk”. No employment testing is to be provided as part of TB Program.**

7. **INJECTED DRUGS (ever):** Any patient with a history of past or current injecting drug use. Injecting drug use involves the use of hypodermic needles and syringes for the injection of drugs not prescribed by a health care provider. Route of administration may be intravenous (IV), subcutaneous (e.g., skin popping), or intramuscular.

Medical documentation or other indications of enrollment in a drug treatment program (e.g., methadone detoxification; methadone maintenance; outpatient, residential, or inpatient treatment, halfway house; prison or jail treatment; Narcotics Anonymous, Cocaine Anonymous, or other self-help program), medical or laboratory documentation of injecting drug use (e.g., urine testing), or physical evidence (e.g., needle tracks) may be useful in answering this question. Because many patients respond negatively during the interview, it may be necessary to ask the patient about drug use at multiple visits.

Commonly injected drugs include:

- | | |
|---|---|
| • Heroin and other opiates (e.g., Demerol, Dilaudid, morphine, opium) | • Phencyclidine (PCP, also known as “angel dust”) |
| • Cocaine (e.g., speedball) | • Other hallucinogens |
| • Methamphetamines | • Barbituates |
| • Amphetamines | • Steroids |

- Other stimulants
- Fentanyl
- Other hormones

List drugs in comment section.

8. **USED NON-INJECTING DRUGS (ever):** Any patient with a history of past or current illicit (non-IV) drug use. Non-injecting drug use involves the use of licensed or prescription drugs or illegal drugs that were not injected and were not prescribed for the patient by a health care provider. The drugs may be ingested, inhaled, sniffed, or smoked.

A history of enrollment in a drug treatment program (e.g., outpatient, residential, or inpatient treatment; halfway house; prison or jail treatment; Cocaine Anonymous or other self-help program), as well as medical or laboratory documentation of drug use (e.g., urine testing), may be useful in answering this question. Because many patients respond negatively during the interview, it may be necessary to ask the patient about drug use at multiple visits (if applicable).

Examples of non-injected drugs include:

- Heroin or other opiates (e.g., Demerol, Percocet, codeine, Dilaudid, MS Contin, nonprescription methoadone)
- Cocaine (e.g., snorted) and crack (e.g., smoked)
- Ingested amphetamines (e.g., speed, uppers, bennies)
- Xanax, Ativan, Valium, or other benzodiazepams
- Phencyclidine (PCP), ketamine, LDS, or other hallucinogens
- Barbituates
- Marijuana (e.g., pot, weed, grass, reefers), hashish
- Inhalants (e.g., nitrous [whippets] oxide, poppers, rush, huff, gasoline, spray paint, butane)
- Steroids

List drugs in comment section.

9. **EXCESS ALCOHOL USE/ABUSE (ever):** There is no standard definition of excessive alcohol use/abuse. Excess alcohol use can be assessed by various methods. Examples of reliable indicators of excess alcohol use include:

- Participation in self-help programs (e.g., Alcoholics Anonymous) or alcohol treatment programs
- Medical record documentation of excess alcohol use or hospitalization for alcohol-related medication conditions (e.g., delirium tremens [DTs], pancreatitis, cirrhosis)
- More than one arrest for intoxication or drunk and disorderly behavior. This can be found by asking the patient, or contacting the local correction facility regarding charges.

The National Household Survey on Drug Abuse defines heavy alcohol use as “five or more drinks on the same occasion on each of 5 or more days in the past 30 days.” Numerous screening instruments (e.g., CAGE, AUDIT, MAST) can be helpful in identifying persons who may use alcohol to excess.

A standard drink in the United States is equal to 13.7 grams (0.6 ounces) of pure alcohol or

- 12 ounces of beer
- 8 ounces of malt liquor
- 5 ounces of wine
- 1.5 ounces or a “shot” of 80-proof distilled spirits or liquor (e.g., gin, rum, vodka, or whiskey)

10. **TRAVELED/RESIDED IN HIGH-RISK AREAS (ever):** Individuals who have traveled to or resided in a TB endemic country. See list in PHN protocol.

Record the year (yyyy) the patient traveled to or resided in a high-risk area. If the year is unknown enter “1900.”

C. RISK FOR PROGRESSION TO TB DISEASE¹

C. RISK FOR PROGRESSION TO TB DISEASE			
Y	N	Diabetes	Y N Endstage kidney disease
Y	N	Silicosis	Y N Gastrectomy or jejunioileal bypass
Y	N	Leukemia or lymphoma	Y N Weigh <90% of ideal body weight
Y	N	Cancer of the head and neck or lung	Y N Pre/post transplant
Y	N	Immunosuppressive condition or therapy	Y N Untreated/inadequate TB treatment
Y	N	Known HIV	Y N Diagnosed with TB infection (w/in past 2 yrs)
Y	N	Infant/child <5 years	Y N Smoking

NOTE: Once a negative test is documented for patients in this group, no repeat testing is necessary unless the patient has a new TB exposure risk factor listed in Section B.

1. **DIABETES:** Ask patient about “high-sugar” or other non-medical descriptions if patient doesn’t know what diabetes is. If known diabetic, ask what last A1C or glucose was. Assess to confirm if diabetes is controlled or non-controlled. Use comment section to document findings.
2. **SILICOSIS:** Ask patient if they have worked as a miner or have any other lung disease related to working in a mine.
3. **LEUKEMIA, LYMPHOMA:** Includes other diseases of the lymph nodes, spleen, and bone marrow. This is also called “cancer of the blood cells” or “cancer of bone marrow.”
4. **CANCER OF THE HEAD AND NECK OR LUNG:** Regardless of whether patient is treated for these cancers. Diagnosis of these cancers must be confirmed and should not be coded for patients who are still undergoing diagnostic evaluation for cancer (i.e. have diagnosis of “possible” or “rule out cancer”).
5. **IMMUNOSUPPRESSIVE CONDITION OR THERAPY:** Anyone who has a condition that suppresses their immune system or currently uses medications that a physician has told them may affect their immune system. This includes patients on tumor necrosis factor-alpha (TNF-α) antagonists, and systemic corticosteroids equivalent to ≥15 mg of prednisone per day. The Food and Drug Administration (FDA) has approved TNF-α antagonist therapy for treatment of rheumatoid arthritis and other selected autoimmune diseases. The FDA has also recently determined that TB disease is a potential adverse reaction to treatment with TNF-α antagonists. The three TNF-α antagonists currently

approved by the FDA are infliximab (Remicade[®]), etanercept (Enbrel[®]), and adalimumab (Humira[®]).

6. **KNOWN HIV:** Any patient with HIV or AIDS
7. **INFANT/CHILD <5 YEARS:** This population represents persons at increased risk for a poor outcome (e.g., meningitis, disseminated disease, or death) if active tuberculosis develops
8. **END STAGE KIDNEY DISEASE:** Patients with severe kidney disease, including those on chronic hemodialysis or peritoneal dialysis.
9. **GASTRECTOMY OR JEJUNOILEAL BYPASS:** Patients who have had surgery to remove part of the upper intestine or stomach. Does not include persons who had only their colon removed.
10. **WEIGH <90% OF IDEAL BODY WEIGHT:** Includes a person who has lost a significant amount of weight unintentionally or is chronically undernourished. This does not include people who are dieting.
11. **PRE/POSTTRANSPLANT:** This includes all tissue/solid organ transplants that require current anti-rejection medication.
12. **UNTREATED/INADEQUATE TB TREATMENT:** This includes persons with fibrotic changes on chest radiograph consistent with prior active tuberculosis
13. **DIAGNOSED WITH TB INFECTION (W/IN PAST 2 YRS):** This is persons who were recently infected with *M. tuberculosis* (within the past 2 years) regardless of treatment outcomes
14. **SMOKING:** Patients who currently smoke tobacco products.

D. HISTORY FOR PREVIOUS TB DISEASE / TB INFECTION:

<u>D. HISTORY FOR PREVIOUS DIAGNOSIS OF TB DISEASE / TB INFECTION</u>			
Y	N	Previous positive TST	Y N Previous positive IGRA
Y	N	Previous diagnosis of TB disease/TB infection (<i>circle one</i>)	
Y	N	Previous completion of therapy for TB disease/TB infection (<i>circle one</i>)	Year completed: _____
Y	N	HIV risk factors	Previous HIV test (yr) _____
			Previous HIV result: _____

1. PREVIOUS POSITIVE TST/IGRA

- There is no benefit in retesting persons who have already been treated for TB disease or TB infection. In general, persons with documented positive skin test results in millimeters or positive IGRA results do not need to be retested.
- Retesting can safely be performed in most persons for whom the skin test or IGRA results are questionable if further evaluation for TB disease or possible TB infection treatment is being considered.
 - Questionable results include a history of a positive skin test without documented results in millimeters or when there is suspicion of improper testing technique or measurement or an “Indeterminate” IGRA result.

- There is not contraindication to repeating the skin test for persons with a prior positive result unless a significant adverse reaction to the test has previously occurred.
2. **PREVIOUS DIAGNOSIS OF TB DISEASE/TB INFECTION:** If coded as “yes”, indicate whether the patient was diagnosed with TB disease or TB infection (circle one).
 3. **PREVIOUS COMPLETION OF THERAPY FOR TB DISEASE/TB INFECTION:** Mark whether or not treatment was completed for TB disease or TB infection (circle one) and record the year treatment was completed (yyyy).
 4. **HIV RISK FACTORS/PREVIOUS HIV TEST/PREVIOUS HIV RESULT:** Indicate yes or no. Document year of last HIV test (yyyy) and result of last test.

HIV risk factors are important, and a sensitive and culturally competent approach should be used to allow the patient to disclose this personal information.

HIV risk factors include:

- Engaging in anal, vaginal, or oral sex with men who have sex with men, multiple partners, or anonymous partners without using a condom
- Inject drugs or steroids where needles/syringes are shared
- Exchange sex for drugs or money
- Have a sexually transmitted infection, such as syphilis, genital herpes, chlamydia, gonorrhea, bacterial vaginosis, or trichomoniasis
- Have been diagnosed with hepatitis, tuberculosis, or malaria
- Received a blood transfusion or clotting factor in the U.S. anytime from 1978 or 1985
- Are exposed to the virus as a fetus or infant before or during birth or through breastfeeding from a mother infected with HIV
- Engage in unprotected sex with someone who has any of the risk factors listed above

If these risk factors are present, offer HIV counseling, testing and referral through the HIV/STD program.

- **If you suspect that a person has HIV infection based on the presence of HIV risk factors or other clinical evidence, proceed to draw IGRA even if person refuses HIV test.**

All persons newly diagnosed with HIV infection should be tested for TB infection as soon as possible. Annual testing for TB infection is recommended only for HIV-infected patients who are at high risk of repeated or ongoing exposure to those with active TB.

E. TB SYMPTOMS:

E. TB SYMPTOMS: <i>(if present, notify nurse or doctor immediately)</i>								
Y	N	Cough ≥ 2-3 wks	Y	N	Weight loss	Y	N	Fever
Y	N	Hemoptysis	Y	N	Night sweats			

This section is included to identify persons with active TB who should be immediately isolated and referred for further evaluation. By inquiring about TB symptoms (i.e. cough \geq 2-3 weeks, night sweats, fever, weight loss, and hemoptysis), it is also possible that a person with active TB who does not have any obvious risk factor/s may be identified. In addition, the TST can be falsely negative in persons with immunosuppression or acute or overwhelming disease and these cases may be first identified by symptoms alone. If a person other than a nurse is performing the risk assessment, they must be educated to notify the nurse or doctor if any of these symptoms are present. It is then up to that medical provider to determine if the symptom is truly suggestive of TB or represents a minor complaint as with a cold. If a person has a cough \geq 2-3 weeks' duration, with at least one additional symptom, including fever, night sweats, weight loss, or hemoptysis, code as "high-risk."² If the patient is symptomatic, further evaluation measures should be taken such as sputum collection, chest X-ray, and medical exam. If a patient living with HIV/AIDS answers yes to at least one symptom, he/she should undergo a diagnostic evaluation for TB disease that includes³:

- Smear microscopy and liquid culture of at least three sputum specimens;
- Liquid culture of a lymph node aspirate, if the patient has an enlarged lymph node

F. RISK OF TB INFECTION (circle one):

F. RISK OF TB INFECTION (circle one):		HIGH (apply TST or draw IGRA)	LOW (TB education only)
Y N	Counseled on risk of TB disease/infection		
Y N	TST placed	Read: ___/___/___	Result (mm) _____
Y N	2nd TST placed	Read: ___/___/___	Result (mm) _____
Y N	IGRA drawn	Result (circle one): P - Positive	N - Negative I - Indeterminate
Y N	2nd IGRA drawn	Result (circle one): P - Positive	N - Negative I - Indeterminate

After the risk assessment is complete and adequate education about each section has been provided, a decision should be made as to whether an IGRA or TST is indicated.

High-Risk: A person with:

- Any one or more risk factors for exposure (Section B)

OR

- Any one or more risk factors for progression (Section C) EXCEPT if "smoking" is checked as the only risk factor in Section C AND does not meet criteria for high-risk under Sections B, D, or E

OR

- Any one of more Section D risk factors*

OR

² CDC. Controlling Tuberculosis in the United States. Recommendations from the American Thoracic Society, CDC, and the Infectious Diseases Society of America. MMWR 2005; 54 (No. RR-12, 33, Table 5).

³ Adapted. CDC. A New Approach for Tuberculosis Disease Screening and Diagnosis in People with HIV/AIDS. <http://www.cdc.gov/hiv/resources/factsheets/hivtb.htm>

- Any two or more TB symptoms (Section E)

should be coded as “high-risk” and receive a TST or IGRA (see Figure 1. Testing for TB Infection Decision Tree). If the patient has a history of a positive TST/IGRA and no risk factors for exposure or progression to active disease or no symptoms, he/she should not be considered “high-risk.” If a patient has symptoms of active TB, he/she should be immediately evaluated by a nurse or physician.

***If one or more risk factors in Section D are marked “Y” and all other risk factors in the remaining section are marked “N,” the patient should be marked “High-risk” and PTBMIS will automatically populate the patient as “High-risk.”**

- If “Previous positive TST” or “Previous positive IGRA” is marked “Y” but there is **NO DOCUMENTATION**, offer to retest using the appropriate testing method (see Figure 1. Testing for TB Infection Decision Tree).
- If “Previous diagnosis of TB disease/TB infection” (one or the other) is marked “Y” and this is a verbal report but there is **NO DOCUMENTATION**, ask patient if it is possible to obtain documentation. If it is not possible, offer testing and follow-up accordingly.
- If “Previous completion of therapy for TB disease/TB infection (one or the other) is marked “Y” and this is a verbal report but there is **NO DOCUMENTATION**, ask patient if it is possible to obtain documentation. If it is not possible, offer testing and follow-up accordingly.
- If “Y” is marked to any of the above bullet points and the patient has symptoms of TB, evaluate immediately.
- If “HIV risk factors” are marked “Y,” the patient should be tested with an IGRA. **NOTE: All persons newly diagnosed with HIV infection should be tested for TB infection as soon as possible. Annual testing for TB infection is recommended only for HIV-infected patients who are at high risk of repeated or ongoing exposure to those with active TB.**

Low-Risk: Persons **WITHOUT** any risk factors listed in **Sections B-E**, the patient should be coded as “low-risk”, and testing for TB infection should not be done. Patients who have “Smoking” checked as “Y” and no other risk factors in the other sections should be coded as “low-risk.” “Low-risk” patients should be educated about why they are considered low-risk (based on information provided by the patient). Documentation will be provided to the patient regarding his/her status as “low-risk.” Instruct the patient to contact the health department if symptoms develop or if he/she develops one of the TB disease or TB infection risk factors listed above.

Recording: TST or IGRA Results:

Paper TB RATS: Document at the bottom of the paper TB RAT that the patient has been counseled about the risk of TB disease or TB infection. Information about the TST/IGRA and results should be documented, and referral to other clinics such as the TB or HIV clinic or other disposition should be noted in comment section in PTBMIS.

TB Supplemental Screen (TBS): In PTBMIS, there is no specific place on the TBS to indicate that the patient has been counseled about the risk of TB disease and/or TB infection and record the TST or IGRA result on the TBS. Instead “TBS” should be recorded on the patient’s encounter screen and skin test results in millimeters and tests that are not read should be entered on the lab screen in PTBMIS. Millimeter results are

entered under “results” and tests that are not read are recorded under “status” on the lab screen.

NOTE: People needing a two-step skin test do not need another TB RAT filled out. Contacts do not need a second TB RAT completed 8-10 weeks after the first TB RAT unless they report new risk factors.

Use of an interpreter:

TB Supplemental Screen (TBS): There is no specific place on the TBS to indicate whether or not a patient received interpreter services. Interpreter services should be recorded on the patient’s encounter screen by using code INT1-INT4. If a telephonic interpreter service is used, you may still code INT1-INT4 on the patient’s encounter screen.

NOTE: Bi-lingual staff administering the service cannot code INT1-INT4 in PTBMIS.

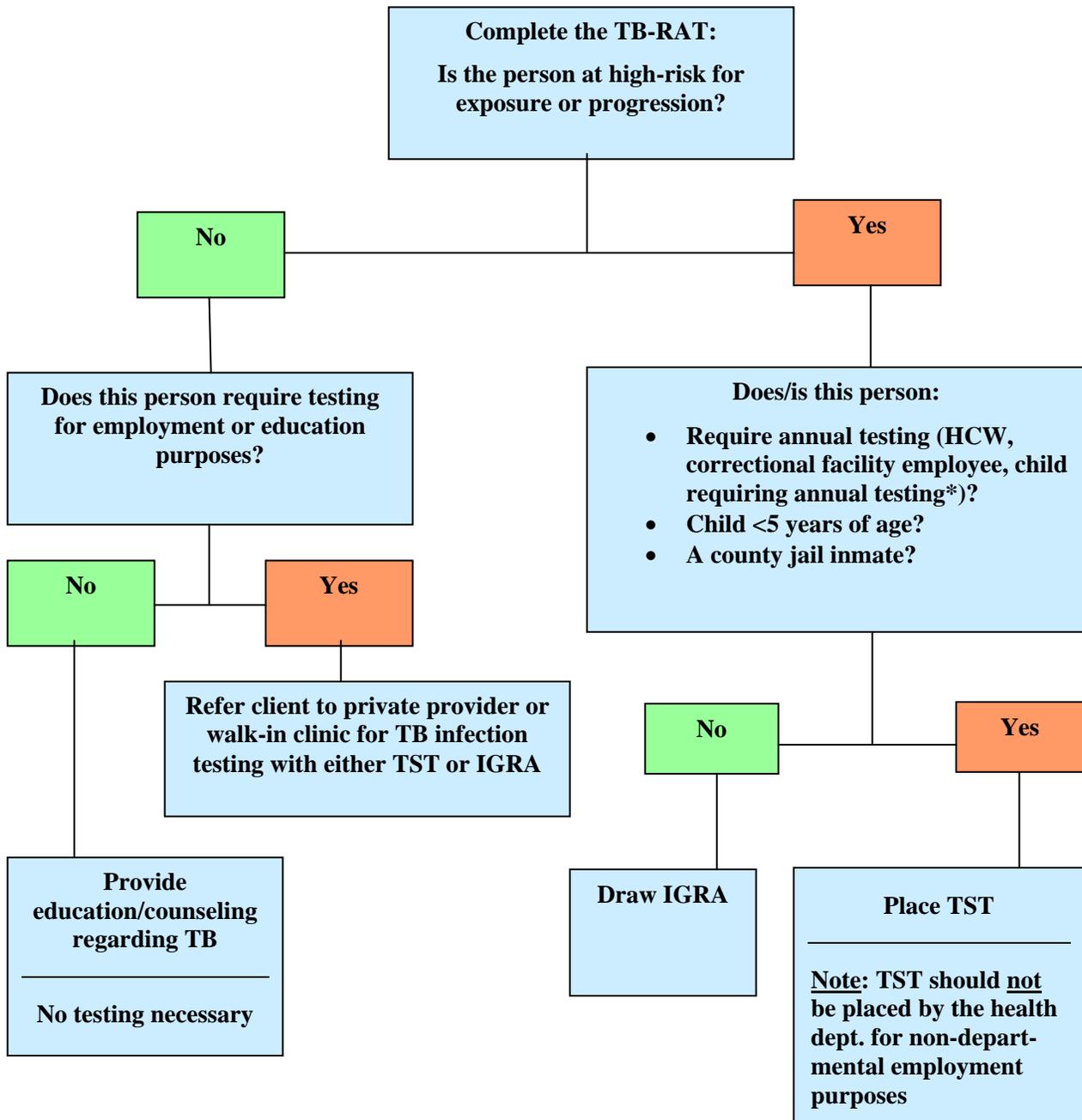
Signing and dating the form:

Paper TB RATs: The health department employee who completes the assessment must sign the form. The form should also be dated at the top, using the date the assessment was completed.

TB Supplemental Screen (TBS): Nurses, public health reps, etc., administering the TB RAT must record their provider number on the TBS.

FIGURE 1: Testing for TB Infection Decision Tree

Tuberculin Skin Testing (TST) or Interferon-gamma Release Assay (IGRA)



*See Table 1. TTBEF Recommendations for TST for Infants, Children Adolescents

Revised October 3, 2013
Tennessee TB Elimination Program

Table 1. TTBEF Recommendations for TST for Infants, Children and Adolescents**

Children for whom immediate TST or IGRA is indicated:

- Contacts of people with confirmed or suspected contagious TB (contact investigations)
- Children with radiographic or clinical findings suggesting TB disease
- Children immigrating from countries with endemic TB including international adoptees
- Children with travel histories to countries with endemic TB and substantial contact with indigenous people from such countries

Children who should have annual TST:

- Children infected with HIV (TST only)

Children at increased risk of progression to active TB disease:

- Children with other medical conditions, including diabetes mellitus, chronic renal failure, malnutrition, congenital or acquired immunodeficiencies, and children receiving tumor necrosis factor (TNF) antagonist deserve special consideration. Without recent exposure, these people are not at increased risk of acquiring tuberculosis infection. Underlying immune deficiencies associated with these conditions theoretically would enhance the possibility for progression to severe disease. Initial histories of potential exposure to tuberculosis should be included for all of these patients. If these histories or local epidemiologic factors suggest a possibility of exposure, immediate and periodic TST or IGRA should be considered.
- An initial TST or IGRA should be performed before initiation of immunosuppressive therapy, including prolonged steroid administration, use of TNF-alpha antagonists, or other immunosuppressive therapy in any child requiring these treatments.

**Adapted from AAP Tuberculin Skin Test (TST) Recommendations for Infants, Children, and Adolescents (2012 Red Book, Table 3.76, page 740)

APPENDIX A. Correctional Facilities

Correctional facilities may include:

Type	Description
Federal prison	Confinement facility administered by a federal agency; includes privately operated federal correctional facilities
State prison	Confinement facility administered by a state agency; includes privately operated state correctional facilities
Local jail	Confinement facility usually administered by a local law enforcement agency, intended for adults but sometimes also containing juveniles; holds persons detained pending adjudication and/or persons committed after adjudication, typically for sentences of one year or less
Juvenile correctional facility	Public or private residential facility; includes juvenile detention centers, reception and diagnostic centers, ranches, camps, farms, boot camps, residential treatment centers, and halfway houses or group homes designated specifically for juveniles

APPENDIX B. Long-term Care Facilities

Long-term care facilities may include:

Type	Description
Nursing home	Freestanding facility with three or more beds (i.e., is classified as a residential facility or congregate residential setting) that provides nursing care services (e.g., nursing or medical care and/or supervision of medications that may be self-administered)
Hospital-based facility	Distinct unit with three or more beds that is physically attached to, or managed by, a hospital
Residential facility	<p>Facility with three or more beds (i.e., is classified as a residential facility or congregate setting) and meets both of the following criteria:</p> <ol style="list-style-type: none"> 1. Not classified as a nursing home or hospital-based facility (see above) <p style="text-align: center;">And</p> <ol style="list-style-type: none"> 2. Provides personal care or supervision (not nursing care services) to its residents, in addition to room and board (e.g., help with bathing, dressing, eating, walking, shopping)
Mental health residential facility	Facility that provides 24-hour care in a hospital, residential treatment, or supportive setting
Alcohol and drug treatment facility	Only long-term rehabilitation or residential facilities designated for treatment of 30 days or longer