Completing the ARPE Forms

All information required to complete the ARPE form can be located on the Contact Investigation worksheets.

PART I. CASES AND CONTACTS

Part I. Cases and Contacts

	Types of Cases for Investigation:		
	Sputum smear +	Sputum smear - cult. +	Others
Cases for Investigation	(a1)	(a2)	
Cases with No Contacts	(b1)	(b2)	
Number of Contacts	(c1)	(c2)	(c)
Evaluated	(d1)	(d2)	(d)
TB Disease	(e1)	(e2)	(e)
Latent TB Infection	(f1)	(f2)	(f)
Started Treatment	(g1)	(g2)	(g)

Cases for Investigation: TB cases and their contacts are grouped into three (3) groups:

1. Sputum smear +: All of the following criteria must be met for counting cases in this category:
    a. Inclusion in the overall surveillance case count for the cohort year;
    b. A disease site in the respiratory system including the airways; and
        i. RVCT Site of Disease = "pulmonary" or laryngeal
    c. A positive AFB sputum smear result, **whether or not** any culture result is positive
        i. RVCT Sputum Smear = positive
2. Sputum smear -/culture+: All of the following criteria must be met for counting cases in this category:
    a. Inclusion in the overall surveillance case count for the cohort year;
    b. A disease site in the respiratory system including the airways;
        i. **RVCT Site of Disease = "pulmonary" or laryngeal**
    c. Negative AFB sputum smear results; and
        i. **RVCT Sputum Smear = negative**
    d. A sputum culture result that is positive for *Mycobacterium tuberculosis*
        i. **RVCT Sputum Culture = positive** *OR*
        ii. **RVCT Nucleic Acid Amplification Test Result = positive**
            1. *In absence of reported positive sputum culture*
        iii. **RVCT Nucleic Acid Amplification Test Specimen Type = sputum**

    NOTE: Cases with a positive nucleic acid amplification test (NAAT) result that are sputum smear-negative will be included in this category.
3. Others:
    a. This category includes contact investigations that were done because of any circumstances not included in the other two categories.

    NOTE: Clinical cases and provider-verified cases will be included in this category.

Cases with No Contacts: Cases that are counted under one of the first two (2) columns: **Sputum smear + or Sputum smear -/culture +** are counted here if **no** contacts were elicited, regardless of the reason that contacts were not elicited.

Number of Contacts: All of the following criteria must be met for counting a person who has been exposed to TB as a contact for this report:

a. The health department believes that the person was exposed, warranting an evaluation for TB disease of TB infection (TBI);
b. The exposure was caused by a person with active TB disease that was counted by the reporting jurisdiction (i.e., region); and
c. Enough identifying and locating information is available for a reasonable opportunity to contact the person, regardless of whether the person is in the jurisdiction of the health department.

NOTE: If contacts are identified out-of-state (an interjurisdictional notification [IJ] should be completed for each contact that is out-of-state) or in an institution that performs their own contact investigation (e.g., hospital), the regional TB program manager is responsible for requesting evaluation outcomes for those contacts and including in the ARPE reports.

Evaluated: This is a count of contacts that have been tested and examined as part of a contact evaluation. Only contacts that have been **fully evaluated** should be included in this count. Please refer to **Figure 1: Criteria for Full Evaluation of Contacts**.

TB Disease: Contacts should be counted under this outcome if they have active TB disease initially discovered **as part of** the contact investigation of the index case.

a. Contacts that are initially diagnosed with TB infection (TBI) and subsequently develop active TB disease **should not** be counted in this category.
b. Patients that previously had active TB disease and were treated or spontaneously health and TB disease was discovered coincidentally (i.e., not because of the contact investigation) **should not** be counted in this category.
c. If a secondary case is identified as part of the contact investigation, the index case **should not** be counted on the ARPE for the secondary case. Example: John Smith is the index case and you are completing the ARPE report for him. Upon testing and evaluation of his contacts, you discover that his wife, Mary Smith, also has active TB disease. Mary Smith should be counted as a contact with TB disease for John Smith; however, John Smith **would not** be included as a contact with TB disease to Mary Smith.

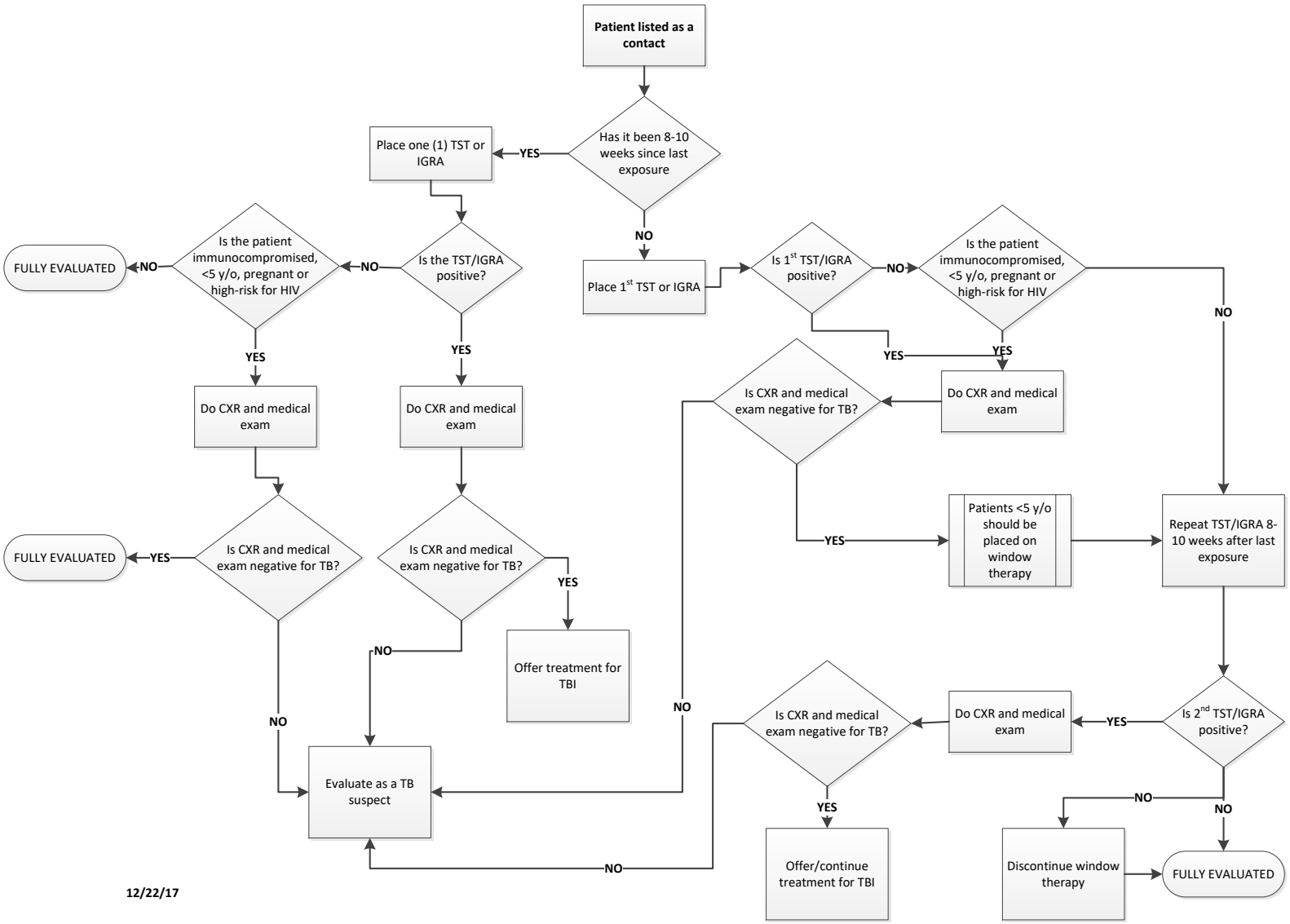
Latent TB Infection: This is a count of contacts that have TB infection (TBI) that is diagnosed because of the current contact investigation around the index case. Both of the following criteria are required:

a. A positive test for TB infection (tuberculin skin test [TST] or interferon gamma release assay [IGRA]); and

b. The exclusion of active TB disease through further testing and examination (i.e., radiographic and microbiologic testing)

Only those contacts that are **newly** diagnosed with TBI should be included in this category. Children placed on window therapy **should not** be included in this category unless a diagnosis of TBI is made.

Figure 1. Full Evaluation of Persons Identified as Contacts to an Active TB Case



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Started Treatment: Contacts that are diagnosed with TB infection (TBI) are counted in this category **after** ingesting the first dose of a planned full-treatment course for TBI. The following criteria are required to be counted in this category:

a. Newly diagnosed TB infection (TBI) based on the current contact investigation of the index case (i.e., counted as a contact diagnosed with TBI in the above category)
b. Prescribed a regimen for TB infection and ingested one (1) dose of the prescribed regimen.

Completed Treatment: The following criteria are required for including in the count for this category:

a. The contact is newly diagnosed with TB infection (TBI) based on the current contact investigation (counted in the **Latent TB Infection Category** of the ARPE;
b. Was prescribed a regimen for TB infection (TBI) and ingested one (1) dose of the prescribed regimen (counted in the **Started Treatment** category of the ARPE); and
c. Completes an adequate or required number of doses of a prescribed regimen for TB infection (TBI) based on the current Tennessee TB Elimination Program (TTBEP) TB Manual

PART I. REASONS TREATMENT NOT COMPLETED

Reasons Treatment Not Completed:			
Death			
Contact Moved (follow-up unknown)			
Active TB Developed			
Adverse Effect of Medicine			
Contact Chose to Stop			
Contact is Lost to Follow-up			
Provider Decision			

Death: Contacts who were newly diagnosed with TB infection (TBI) as part of the current contact investigation of the index case but that had treatment stopped due to death before the completion of treatment. Examples:

a. A contact died while still receiving treatment after three month, the contact should be included in the **Death** category.
b. A contact decides to stop treatment after one (1) month and subsequently dies two (2) months later, the contact should be included in the **Contact Chose to Stop** category (see below) **unless** it is determined that complications from the TBI treatment caused a late death. If complications from TBI treatment caused a late death, the contact should be included in the **Death** category.
c. If the contact stops treatment because of an illness or injury that proves fatal, the contact should be counted in the **Death** category. Under these

circumstances, the treatment of TBI is likely to be suspended because of the contact's worsening condition, but the general understanding is that treatment would have been resumed if the contact had survived.

d. If treatment is suspected because the illness (not including an adverse effect of the treatment) or injury, and the contact survives however, the treatment is discontinued permanently by a provider, the contact would be counted in the **Provider Decision** category.

Contact Moved (follow-up unknown): Contacts who do not complete TBI treatment because they have moved or migrated from the jurisdiction of the health department **and** follow-up information is **not** known should be counted in this category. However, if the follow-up information is received from the jurisdiction where the contact moved, the contact should be counted in the appropriate **Reasons Treatment Not Completed Category**.

Active TB Developed: If a contact is newly diagnosed with TBI as part of the current contact investigation of the index case and is undergoing treatment for TBI and develops active TB disease during that TBI treatment course, then the contact should be counted in this category. If treatment is stopped for any reason and the contact develops active TB disease **after** treatment has stopped, the contact **should not** be counted in the **Active TB Developed** category and should be counted in the appropriate **Reasons Treatment Not Completed Category**.

Adverse Effect of Medicine: If a contact stops treatment due to an adverse effect of the medication (e.g., drug-drug interactions or drug-food interactions) of the TBI medication, then the contact should be counted in this category. The health care provider should document that the reason therapy was stopped due to adverse effects of the medication. If the patient is having mild side effects that he/she attributes to the TBI medication and wishes to discontinue treatment against the recommendation of the health care provider, the contact should then be counted in the **Contact Chose to Stop** category. Clear distinction on the part of the provider should be made whether the medication was stopped due to adverse effects or whether the patient chose to stop.

Contact Chose to Stop: If a contact decides to stop medication before an adequate number of doses have been taken to be considered treatment complete, the contact should be counted in this category. If the provider determines that medication should be stopped due to a medical reason, the contact should be counted in the **Provider Decision** category. Other examples include:

a. If a contact moves out of your jurisdiction and provides incorrect forwarding address information, you may presume that the contact made the decision to stop treatment; however, in this circumstance, the patient should be counted in the **Contact is Lost to Follow-up** category below.

Contact is Lost to Follow-up: Contacts whose treatment status is incomplete or unknown at the time that treatment is anticipated to be complete because the health department cannot

locate the contact in order to determine the treatment outcome should be counted in this category. Every effort should be made to locate the contact to continue or restart treatment (depending on how much treatment was missed or unaccounted for) prior to considering a contact **Lost to Follow-up**.

Provider Decision: If the health care provider determines that treatment for TB infection (TBI) should be stopped because of concerns about the benefits, the safety, or the practicality of treatment (e.g., the contact is not adherent to clinic and/or DOT visits and the safety of the treatment cannot be monitored , then the contact should be counted in this category.

Table 1 describes treatment scenarios and the corresponding **Reasons Treatment Not Completed** categories the contact should be counted in. These are examples and do not reflect every possible scenario.

Table 1. Contact Scenarios and Corresponding Reason Treatment Not Completed

Scenario	Reason Treatment Not Completed
Xavier started Isoniazid/Rifapentine (3HP) for treatment of TBI. After two (2) doses of 3HP, Xavier started having nausea with some vomiting about an hour after taking the medication. Xavier tells the physician he doesn't want to take the medication anymore. After discussing the benefit of continuing treatment with the doctor, Xavier still decides not to continue treatment and does not want to switch to another regimen.	Contact Chose to Stop
Amy begins treatment with Rifampin (RIF) for treatment of TBI. Amy misses her appointment to pick up her 3rd bottle of medication. Several attempts to call and visit Amy in person are unsuccessful and Amy only completes two (2) months of RIF.	Contact is Lost to Follow-Up
Billy started Isoniazid (INH) for treatment of TBI and is expected to complete nine (9) months of medication. After Billy misses his appointment to pick up his 4th bottle of INH, it is discovered that Billy died in a car accident the month prior.	Death
Jennifer begins Rifampin (RIF) treatment for TBI. After successfully completing one (1) month of treatment, Jennifer reports feeling dizzy and shortness of breath after taking her medication. The physician learns that Jennifer has recently been diagnosed with diabetes mellitus (DM) and has started medication for DM. The physician stops the medication because the RIF is interacting with Jennifer's diabetes medication.	Adverse Effect of Medicine
Jose started Isoniazid/Rifapentine (3HP) for treatment of TBI. After seven (7) weeks of treatment, Jose informs the health department nurse that he is relocating to California for work. He provides the nurse with his new address and the nurse completes an Interjurisdictional Notification (IJN). The nurse follows up with California after 16 weeks from the date that Jose started 3HP (when he should have been completed) and learns that the health department in California was unable to locate Jose to continue treatment.	Contact Moved (follow-up unknown)
Phillip starts Isoniazid/Rifapentine (3HP) for treatment of TBI. He has consistently missed weeks of DOT and will not be able to complete the regimen in the 16-week timeframe. The physician decides to stop 3HP for this reason.	Provider Decision
Elizabeth starts Isoniazid (INH) for treatment of TBI. After the second month of treatment, Elizabeth develops a worsening cough and hemoptysis. Radiographic and microbiologic tests confirm that Elizabeth now has active TB and she begins a four (4)-drug regimen for active TB.	Active TB Developed

PART II. EVALUATION INDICES

Part II. Evaluation Indices (Automated in TIMS and converted to percentage)

No-Contacts Rate	(b1/a1), %	(b2/a2), %	
Contacts Per Case	(c1/a1)	(c2/a2)	
Evaluation Rate	(d1/c1), %	(d2/c2), %	(d/c), %
Disease Rate	(e1/d1), %	(e2/d2), %	(e/d), %
Latent Infection Rate	(f1/d1), %	(f2/d2), %	(f/d), %
Treatment Rate	(g1/f1), %	(g2/f2), %	(g/f), %
Completion Rate	(h1/g1), %	(h2/g2), %	(h/g), %

This section will be completed by Central Office.