Section 12: Contact Investigation, Window Period Prophylaxis (WPP) and Source Case Investigation

Table of Contents

Steps in a TB Contact Investigation **3**

Step 1: Determine how infectious the case is. *3*

Step 2: Determine the likely period of infectiousness *4*

Step 3: Interview the case to get a list of contacts *4*

Step 4: Classify contacts into categories which reflect the degree of exposure *4*

Step 5: Identify high-priority contacts *5*

Step 6: Begin the initial round of contact screening based on case characteristics and contact classification *6*

Step 7: Review findings from first round of screening with the CDCN *8*

Step 8: Complete the second round of contact screening (eight weeks after break in contact with the case while infectious) *9*

Step 9: Review findings from second round of screening with the CDCN *10*

Step 10: Close the contact investigation *10*

Steps in Window Period Prophylaxis (WPP) **11**

Step 1: Discuss WPP with the client (and/or the parent/guardian) *12*

Step 2: Prepare to Begin WPP *13*

Step 3: Begin WPP *13*

Step 4: Document and Monitor WPP *17*

Step 5: Complete Follow-up Screening *17*

Step 6: Discontinue WPP *19*

LTBI Treatment Regimens and Recommended TB Drug Dosages **20**

Steps in a Source Case Investigation **20**

Step 1: Consult the CDCN *20*

Step 2: Identify High-Priority Contacts *20*

Step 3: Screen High Priority Contacts *22*

Step 4: Review Findings with the CDCN *23*

Step 5: Close the Source Case Investigation *24*

Steps in a TB Contact Investigation

A contact investigation is a systematic process for identifying, prioritizing and screening people that have been exposed to someone with active TB.

Contact investigation has three main objectives. In order of priority these are as follows:

1. Identify and initiate treatment of secondary cases of active TB disease.
2. Identify and treat the source case who infected the index case, if the index case is under 5 years old.
3. Identify contacts with LTBI in order to offer preventive treatment.

It is advisable to prioritize contacts based on several factors including infectiousness of the source case, extent of exposure and immunologic vulnerability of those exposed. The most effort should be put into contacts who are most at risk of being infected and/or most at risk of developing active TB disease if infected. Contact investigation is iterative: it should be expanded if initial follow-up results indicate that transmission has occurred.

DO NOT begin contact investigation without consulting the CDCN.

Step 1: Determine how infectious the case is.

Infectivity refers to the ability of a pathogen to spread from one host to another. TB cases with smear positive, culture positive (S+C+) sputum are highly infectious. Cases whose sputum is smear negative, culture positive (S-C+) are less infectious, but still demonstrate infectivity. See **Table 12.1**.

Table 12.1: Relative Levels of Infectiousness of TB

Sputum smear positive, culture positive	Sputum smear negative, culture positive	Extrapulmonary TB sputum smear negative, culture negative
Highly contagious	Less contagious, but still infectious	Rarely contagious
AFB seen under the microscope directly from the sputum sample.	AFB not seen under the microscope but grow in culture	Blood or biopsy sample positive for TB
Often symptomatic	May or may not be symptomatic	Localized or systemic symptoms

Step 2: Determine the likely period of infectiousness

Confirm the infectious period for the case in order to determine the time period of exposure of potential contacts.

Cases of pulmonary TB are generally considered to become infectious at the time of onset of cough or worsening of a baseline cough or the onset of other symptoms of TB although it is often difficult to determine when symptoms began.

Generally, priority should always be given to contact tracing during the period when the TB patient had respiratory symptoms (e.g. a cough). The patient with smear-positive or symptomatic disease should be considered to have been infectious for **3 months** before onset of respiratory symptoms or the first positive finding consistent with TB, whichever is longer.

Asymptomatic cases with a negative smear and no cavities seen on chest X-ray should be considered infectious **4 weeks** before the date that TB was suspected.

For contact follow-up purposes, the period of infectiousness ends when the index case is in effective airborne isolation from others or is no longer infectious, whichever comes first.

Step 3: Interview the case to get a list of contacts

Generally, the CDCN completes this interview while the case is in the hospital. However, if the case is in the community the nurse can complete this interview. Interview the case **within 1 business day of diagnosis** to identify contacts. Review the **Keeping Your Family & Friends Safe from TB Fact Sheet (Appendix E)** with the case during the interview.

Refer to the **TB Case Interview Guide (Appendix D)**. Ask questions to help identify where the case has spent time, and who s/he has spent time with.

Step 4: Classify contacts into categories which reflect the degree of exposure

Type 1 - Household: people who slept in the same household as the case, such as:

- Family
- Room-mates and boarders
- Overnight visitors
- “Couch surfers”

Type 2 - Close, Non-household: people who shared breathing space with the case daily, such as:

- Caregivers
- Regular sexual partners
- Close friends and extended family
- Daycare or primary/secondary school classroom contacts
- Coworkers who work in close proximity, particularly in a small room

Type 3 - Casual/community: people who spent time with the case less frequently than household or close non-household contacts, such as:

- High school classmates who share fewer courses with the case than Type 2 contacts
- Classmates in college/university classes
- Coworkers with less exposure than Type 2 contacts
- Members of a club, team, weekly children's playgroup or other social/recreational/religious group
- Extended family members who are seen occasionally
- Other students on a school bus

Step 5: Identify high-priority contacts

- **High priority Contacts** generally include:
  - The **Type 1** contacts.
  - Symptomatic contacts (e.g. any category of contact with a cough for longer than three weeks, weight loss, fever/night sweats).
  - Contacts under five years of age.
  - Immunosuppressed contacts, such as those with: HIV infection; end-stage renal disease; organ transplant (related to immune suppressive therapy); and/or treatment with TNA alpha inhibitors and/or other immune suppressive drugs/therapies, such as corticosteroids (equivalent of equal to or more than 15 mg/day of prednisone for one month or more) or chemotherapy.

- Record information about high-priority contacts and any other contacts identified by the case on a **Tuberculosis Investigation Record (Appendix D)**. Ensure contacts in other jurisdictions are clearly identified on the record. **Send the Tuberculosis Investigation Record to the CDCN.**

- Consult with the CDCN to confirm high-priority contacts.

- Continue gathering information about high-priority contacts each time you meet with the case (e.g. for DOT).

    - Remind the case (and/or the parent/guardian) that you want to make sure his/her family and friends are healthy.
    - Ask open-ended questions to prompt the case for additional information about his/her activities and contacts.
    - Test additional high-priority contacts as soon as possible.
    - Notify the CDCN when additional high-priority contacts are added to the **Tuberculosis Investigation Record.**

Step 6: Begin the initial round of contact screening based on case characteristics and contact classification

See **Table 12.2** for guidance on who to include in the initial round of contact screening.

- Begin the initial round of contact screening **within one week starting with high priority contacts.**

- Document all attempts to reach/screen contacts.

- Initiate a **Tuberculosis Assessment Form** (**TBAF**) **(Appendix D)** for each contact.

- Screen and follow-up contacts using the **TB Contact Testing Flowchart (Appendix D)**.

NOTES:

- See **Appendix D** for the **Contact Notification letter.**

- See **Appendix E** for the fact sheets **What to expect if you are a TB Contact** and **Tuberculosis**

- **A TST result of 5 mm OR MORE is considered "positive" for a contact.**
- Window period prophylaxis is generally recommended for contacts under five years of age and may be recommended for immunocompromised contacts on a case-by-case basis.
- In situations where more than eight weeks have passed since a contact was last exposed to an infectious case, only one round of screening is needed, provided the contact is at least six months of age when the TST is done.

- Update the **Tuberculosis Investigation Record** with testing dates and results/findings as they become available.
- Send the updated **Tuberculosis Investigation Record** to the CDCN weekly or as directed by the CDCN.
- Consult the CDCN about:
  - Contacts with:
    - Symptoms
    - New positive TST results
  - Contacts who:
    - Did not return for TST reads
    - Refused screening
    - Could not be found or are away from the community
    - Did not respond to attempts to provide screening

Table 12.2: General Guidelines for which contacts to include in the initial phase of a contact investigation, based on case characteristics

Adapted from: Menzies R, Wong T. Canadian Tuberculosis Standards. 7th ed. Canadian Thoracic Society and the Public Health Agency of Canada; 2014.

Type of TB	Case characteristics	Contacts to Test Initially
Laryngeal TB	All cases	Type 1, Type 2 and high priority cases Consider including Type 3 contacts from the outset
Respiratory TB	**ANY** sputum AFB smear is positive **AND/OR** Cavity on chest x-ray	Type 1, Type 2, and high priority contacts
Respiratory TB	**ALL** sputum AFB smears are negative **AND** **NO** Cavity on chest x-ray	Type 1 and high priority contacts

Step 7: Review findings from first round of screening with the CDCN

Decisions on when and how to expand a contact investigation are made by the CDCN in consultation with the Medical Officer of Health (MOH).

DO NOT expand a contact investigation without consulting the CDCN.

If the contact investigation is expanded:

- Re-interview the case to identify additional contacts.
- Update the **Tuberculosis Investigation Record** with information on additional contacts and send it to the CDCN.
- Begin screening additional contacts as soon as possible.

Step 8: Complete the second round of contact screening (eight weeks after break in contact with the case while infectious)

NOTE: A second round of screening is **NOT REQUIRED** for contacts who meet the criteria listed below **UNLESS** they present with TB signs/symptoms:

- Contacts with prior active TB or LTBI (treated or untreated).
- Contacts diagnosed with active TB or LTBI during the first round of screening.
- Contacts whose first round of screening was done at least eight weeks after their last exposure to the case while infectious.

For all other contacts:

- Document all attempts to reach/screen contacts.
- Re-screen those whose initial TST results were **less than 5 mm** of induration as described on the **TB Contact Testing Flowchart** once at least eight weeks have passed since last contact with the case while infectious **AND** the contact has reached at least six months of age.

NOTES

- **A TST result of 5 mm OR MORE is considered "positive" for a contact.**
- Update the **Tuberculosis Investigation Record** with testing dates and results as they become available and update the "current status" of each contact.
- Send the updated **Tuberculosis Investigation Record** to the CDCN weekly or as required by the CDCN.
- Consult the CDCN about:
    - Contacts with:
        - Symptoms
        - New <u>positive TST</u> results
    - Contacts who:

- Did not return for TST reads
- Refused screening
- Could not be found or are away from the community
- Did not respond to attempts to provide screening

Step 9: Review findings from second round of screening with the CDCN

After reviewing findings from the second round of screening, the CDCN, in consultation with the MOH, will determine whether the contact investigation should be continued, expanded or closed.

DO NOT continue, expand, or close a contact investigation without consulting the CDCN.

- If the CDCN recommends that the contact investigation be closed, proceed to **Step 10.**
- If the CDCN recommends that the contact investigation be expanded:
  - Re-interview the case to identify additional contacts.
  - Update the **Tuberculosis Investigation Record** with information on additional contacts and send it to the CDCN.
  - Begin screening additional contacts as soon as possible.
  - Complete the **TBAF** as the client proceeds through screening and when the assessment is complete.
  - Update the **Tuberculosis Investigation Record** with testing dates and results/findings as they become available.

Step 10: Close the contact investigation

Once the CDCN recommends that the contact investigation be closed:

- Ensure the "current status" section of the **Tuberculosis Investigation Record** is completed for every contact

DO NOT designate contacts whose screening was not completed as "CLOSED".

- Send an updated copy of the **Tuberculosis Investigation Record**, marked "FINAL", to the CDCN and file the original (marked "FINAL") in the Community Health Chart of the case.

Steps in Window Period Prophylaxis (WPP)

Window period prophylaxis (WPP) is also known as primary prophylaxis. WPP is used in contact investigations to protect children under five years of age from developing active TB during the 'window period' between when they were exposed to an infectious case and when their TST or IGRA results can be considered reliable. WPP may also be recommended for some immunocompromised contacts on a case-by-case basis by a TB Physician or MOH.

The window period for most healthy people who are exposed to infectious TB is between two to eight weeks long. TST results can be unreliable in contacts under six months of age. Thus, the window period for an infant contact lasts until s/he reaches six months of age **AND** at least eight weeks have passed since the last exposure to the infectious case.

WPP is not mandatory but is strongly recommended for those at very high risk of developing severe forms of TB disease. In the Labrador-Grenfell Health Region, WPP is done with directly observed therapy (DOT).

WPP is **NOT APPROPRIATE** for:

- Symptomatic contacts (until active TB has been ruled out)
- Contacts with a history of active TB or LTBI (treated or untreated)
- Contacts more than five years of age (unless they are substantially immunosuppressed)

Regardless of whether a contact begins WPP, it is essential that s/he (or the parent/guardian) remains alert for TB signs/symptoms and reports to a health care provider quickly should any develop.

Step 1: Discuss WPP with the client (and/or the parent/guardian)

- Provide client (and/or the parent/guardian) with the TST results (if done) and chest x-ray findings.

- Review the following Fact Sheets **(Appendix E)** with the client (and/or the parent/guardian):

    - **Window Period Prophylaxis (WPP)**

    - **TB Medications and Acetaminophen (Tylenol)**

    - **TB Medications and Your Liver**

    - **Latent TB Infection (LTBI) Treatment with INH**

- Determine whether the client (and/or the parent/guardian) agrees to WPP. **If WPP is accepted**, obtain consent signature on the **Consent/ Refusal for LTBI Treatment and WPP** in **Appendix D**, proceed to **Step 2.**

  If WPP is declined:

    - Obtain refusal signature on the **Consent/ Refusal for LTBI Treatment & WPP.**

    - Emphasize the importance of:

        - Monitoring for TB signs/symptoms, and reporting to a health care provider quickly should any develop (see **Table 12.3**), and

        - Completing follow-up tests.

    - Advise the client (and/or the parent/guardian) that s/he will be notified when follow-up screening is due.

    - Document the date WPP was discussed and declined in the '*Progress Notes'* in the client's Community Health chart.

    - Update the client's test results and status on the **Tuberculosis Assessment Form (TBAF)** and send it to the CDCN along with the consent/refusal form.

- Proceed to **Step 5** if WPP was declined**.**

Young children and people with immunosuppression can develop very dangerous forms of active TB (e.g. TB meningitis) within weeks of exposure to infectious TB. Careful and frequent monitoring for TB signs/symptoms is especially important when WPP is indicated but declined or is started and then discontinued prematurely.

Table12.3: Signs and Symptoms of TB

Systemic TB signs/symptoms	Signs/symptoms of respiratory TB disease	Signs/symptoms of non-respiratory TB disease
• Fever* • Night sweats* • Weight loss or failure to gain weight (i.e. failure to thrive) • Fatigue • Loss of appetite	Systemic TB signs and symptoms **AND:** • Cough >3 weeks (dry or productive) • Chest pain • Shortness of breath • Bloody phlegm (hemoptysis)	Systemic TB signs/symptoms **AND** pain or dysfunction at the involved site, e.g.: • Swollen lymph nodes (TB lymphadenitis) • Headache, irritability, photophobia, stiff neck (TB meningitis)

****Can be absent in the very young and the elderly***

Step 2: Prepare to Begin WPP

- Ensure all baseline testing has been done, including:
  - Posterior/anterior (PA) and lateral chest x-rays
  - Three sputum specimens for TB testing (if possible)
  - Blood tests: AST, ALT, total bilirubin, CBC, uric acid, creatinine
- Consult the CDCN to obtain a prescription for WPP.
- Advise the client (and/or the parent/guardian) that WPP can begin once a prescription has been received.

Step 3: Begin WPP

Once a prescription has been received, initiate a **Latent TB Infection DOT Record (Appendix D).** To avoid delays in treatment starts, use stock medications, if available, rather than waiting for medications to arrive from the pharmacy.

Before administering the first dose of WPP:

- Ensure baseline blood test results are within normal limits for the client's age. Consult the CDCN about baseline results.

- Confirm the client's weight and document it on the **Latent TB Infection DOT Record**. Compare the current weight against the prescription dosage to ensure the dosing is adequate (see **LTBI Treatment Regimens and Recommended TB Drug Dosages in Section 8**). Consult the CDCN if dosage adjustments are required.

    - Document this in the **Latent TB Infection DOT Record** and child's growth chart.

- Review information with the client (and/or the parent/guardian) on:

    - The treatment regimen (See **Fact sheets in Appendix E: Window Period Prophylaxis and TB Medication Fact Sheets as appropriate**).

    - Potential TB drug side effects/adverse responses to WPP (see **Table 12.4**), and how to contact the CHN should any occur.

    - The need to ensure the Community Health Nurse and the Regional Nurse (if applicable) are aware of all medications the client is taking or starts taking during WPP, so that potential drug-drug interactions can be identified (see **Table 12.5**).

    - The importance of avoiding acetaminophen (Tylenol®) and/or alcohol during WPP.

    - The importance of adherence to WPP.

After administering the first dose of WPP:

- Document the initial treatment dose on the **Latent TB Infection DOT Record**, and

- Confirm a plan for the next DOT dose.

NOTES:

- See **Section 10: Guidelines for Working with Clients** for more information.

- **There must be at least two calendar days between twice-a-week doses of INH**. For this reason, WPP with INH is usually given on Mondays and Thursdays. When a twice-weekly dose is not given on a Monday (for example, when a DOT dose is missed or a statutory holiday falls on a Monday), give treatment on Tuesday and Friday that week. When a twice-weekly dose is missed on a Thursday, it can be taken the next day (Friday). Consult the CDCN if you are uncertain whether/when to give a next dose.

- **Daily WPP with rifampin is given five days a week (Monday to Friday)**. When a dose of rifampin is missed on a weekday during WPP, it does not need to be taken (made up) on the weekend.

- **Once weekly WPP treatment** with rifapentine, INH and pyridoxine is generally given on the same day of each week, until a total of 12 doses have been directly observed.

Table 12.4: Common and/or important side effects/adverse responses associated with isoniazid, rifampin and rifapentine.

Adapted from: Menzies R, Wong T. Canadian Tuberculosis Standards. 7th ed. Canadian Thoracic Society and the Public Health Agency of Canada; 2014.

TB drug	Common side effects/adverse responses	Uncommon but important side effects/adverse responses
Isoniazid (INH)	• Rash • Hepatitis[1] • Neuropathy • Nausea/vomiting[2,3] • Fatigue[3] • Drowsiness, headache • Mild hair loss	• Central nervous system, toxicity[4] • Anemia
Rifampin	• Drug interactions • Rash • Saliva, urine, and tears can become orange/red in colour (harmless but could stain contact lenses)	• Hepatitis[1] • 'Flu like' illness • Neutropenia • Thrombocytopenia
Rifapentine	• Possible hypersensitivity[5]	• Rash • Hepatotoxicity • Thrombocytopenia • Other toxicities

[1]Symptoms can include: loss of appetite, nausea and/or vomiting; abdominal discomfort, unexplained fatigue, dark-coloured urine; scleral icterus; jaundice.
[2]Especially with intermittent regimens administered in combination with rifampin.
[3]Can also be a symptom of drug-induced hepatitis.
[4]Symptoms can include: slurred speech; peripheral neuritis, dizziness; stupor; seizures; coma.
[5]Can include flu-like symptoms (such as fever, chills, headaches, dizziness, musculoskeletal pain) and shortness of breath, wheezing, acute bronchospasm, urticaria, petechiae, purpura, pruritus, conjunctivitis, angioedema, hypotension or shock.

Table 12.5 some common and/or important drug-drug interactions associated with isoniazid and rifampin

Rifampin and Isoniazid Product Monograph. E-Therapeutics. Canadian Pharmacists Association. Accessed November 2014.
Isoniazid and Rifampin. Lexicomp Online. Accessed November 2014.

Isoniazid (INH)	Rifampin
° Acetaminophen ° Antacids ° Anticonvulsants (Carbamazepine, Phenytoin) ° Antidepressants (Citalopram) ° Beta-blockers (Metoprolol) ° Clopidogrel ° Diazepam ° Doxorubicin ° Haloperidol ° Pimozide ° Tamoxifen ° Theophylline ° Thioridazine	° Antiarrhythmics (Diltiazem, Verapamil, Digoxin) ° Anticoagulants (Warfarin, Apixaban, Dabigatran) ° Anticonvulsants (Phenytoin, Valproic Acid) ° Antifungals (Ketoconazole) ° Antipsychotics (Aripiprazole, Clozapine, Quetiapine) ° Barbiturates ° Beta-blockers ° Calcium Channel Blockers (Amlodipine, Nifedipine) ° Clarithromycin ° Cyclosporine ° Estrogens (including hormonal contraceptives) * ° Glucocorticoids ° Methadone ° Protease inhibitors ° Sulfonylureas

*Women using hormonal contraceptives should be advised to use alternate forms of birth control while taking rifampin

Step 4: Document and Monitor WPP

Document and monitor as described in **Section 8: Care of Clients with Latent TB Infection (LTBI).**

Step 5: Complete Follow-up Screening

- Complete screening as per the **TB Contact Testing Flowchart** after eight weeks have passed since the contact's last exposure to the infectious case **AND** the contact has reached six months of age.

- Update the **Tuberculosis Investigation Record** with testing dates and results/findings as they become available.

- Consult the CDCN about:

    - Contacts with:

        - Symptoms
        - New positive TST results

    - Contacts who:
        - Did not return for TST reads
        - Refused screening
        - Could not be found
        - Did not respond to attempts to provide screening

For contacts on WPP diagnosed with LTBI:

- Review the following TB Fact Sheets with the client (and/or the parent/guardian):
    - **Latent TB Infection vs. Active TB Disease**
    - **Latent TB Infection (LTBI) Treatment with INH**
    - **Latent TB Infection (LTBI) Treatment with 3HP**

- Consult the CDCN to confirm:
    - Whether an updated prescription is needed (to maintain the client's TB drug supply).
    - Whether/when client should undergo the PA and lateral chest x-rays usually done once three months of LTBI treatment has been completed.
    - The number of additional doses needed to complete LTBI prophylaxis.

NOTE: DOT doses taken during WPP are counted toward completion of LTBI prophylaxis.

The date WPP was started is considered the start date of LTBI prophylaxis.

- Manage remainder of client's LTBI prophylaxis (e.g. documentation and monitoring) as per **Section 8: Care of Clients with Latent TB Infection (LTBI)**.

- Continue documenting treatment on the existing **Latent TB Infection DOT Record**.

For contacts diagnosed with active TB, manage as described in **Section 7: Care of Clients with Active TB**.

For all other contacts, consult the CDCN to confirm whether/when WPP can be discontinued.

DO NOT discontinue WPP prior to consulting the CDCN or the treating physician.

Step 6: Discontinue WPP

Once approval to discontinue WPP has been obtained:

- Review TB signs/symptoms with the client (and/or the parent/guardian, see **Table 12.3**). Remind the client (and/or the parent/guardian) to remain alert for TB signs/symptoms, and to report to a health care provider quickly should any develop. **It is possible for clients that have taken WPP to develop active TB.**

- Document discontinuation of WPP in the '*Progress Notes*' on the client's chart. Clearly indicate that treatment was taken for WPP (not for LTBI). Also record:

    - Which TB drugs were taken

    - Number of doses taken

    - Date of last dose

- Ensure the current **Latent TB Infection Treatment Outcome Form (Appendix D)** is complete, including number of doses taken that month and number of doses taken to date.

- Send the **Latent TB Infection Treatment Outcome Form** to the CDCN, along with an updated growth chart for contacts under five years of age.

- File the **Latent TB Infection Treatment Outcome Form** in the client's Community Health and Community Clinic chart.

NOTE: A history of WPP does not provide protection against future infection with TB bacteria. Clients who are exposed to active TB after WPP should undergo routine contact follow-up assessments. WPP may be recommended again for contacts who still meet the criteria for WPP (see **TB Contact Testing Flowchart**).

LTBI Treatment Regimens and Recommended TB Drug Dosages

Refer to **Section 8: LTBI Treatment Regimens and Recommended TB Drug Dosages** for information on drugs for use in WPP.

Steps in a Source Case Investigation

A source case investigation (also called 'reverse contact investigation') might be done to identify how a person became infected with TB bacteria. The purpose of the investigation is to look for an infectious TB case (a 'source case') among people the person regularly spends time with, such as household members, grandparents, regular caregivers (e.g. daycare providers, babysitters) and teachers.

DO NOT begin a source case investigation without consulting the CDCN.

Step 1: Consult the CDCN

- Consult the CDCN for guidance on the source case investigation.

Step 2: Identify High-Priority Contacts

- Interview the client (and/or the parent/guardian) to identify his/her **high-priority contacts**.

  2For source case investigations **high-priority contacts** include:

- Symptomatic contacts (e.g. any category of contact with a cough for longer than three weeks, weight loss, and/or fever/night sweats)
- Household members (**Type 1 contacts**)
- Close, non-household contacts (**Type 2 contacts**) that spent time regularly with the client

See **Contact Investigation in Section 2: Understanding TB, for contact category definitions (types).**

Note: Contact category definitions are also described on the Tuberculosis Investigation Record.

- Ask questions to help identify where the client spent time, and who s/he spent time with such as:
  - Who else do you know that is also sick and/or coughing?
  - Where do you stay overnight?
  - Who else stays/lives/sleeps there? How often, and for how long?
  - Who do you spend the most time with each day? Each week?
  - Where do you spend time (e.g. store, gym, arena, school, community centre, church, airport, day care, restaurant, hotel, etc.)? How often do you go and how long do you stay?
  - Where have you traveled to? Where did you stay? How long did you stay? Who else was there? Was anyone there sick and/or coughing?
  - Who in your family and friends has ever had LTBI or active TB?
  - Who are your parents, grandparents, aunties, uncles, cousins, other relatives? Where do they live? How often do you see them?
  - When people visited, who do they bring with them?

- Record information about high-priority contacts and any other contacts identified by the case on a **Tuberculosis Investigation Record.** Ensure contacts in other jurisdictions are clearly identified on the record. **Send the Tuberculosis Investigation Record** to the CDCN**.**

- Consult with the CDCN to confirm high-priority contacts and begin screening high priority contacts **within one week** (see **Step 3**).

- Continue gathering information about high-priority contacts each time you meet with the client (e.g. for DOT).

    - Remind the client (and/or the parent/guardian) that you want to make sure his/her family and friends are healthy. (See **Fact Sheet Keep your Family and Friends Safe from TB in Appendix E**).

    - Ask open-ended questions to prompt the client for additional information about his/her activities and contacts.

    - Test additional high-priority contacts as soon as possible.

    - Notify the CDCN when additional high-priority contacts are added to the **Tuberculosis Investigation Record.**

Step 3: Screen High Priority Contacts

- Document all attempts to reach/screen contacts.

- Initiate a **Tuberculosis Assessment Form** (**TBAF**) for each contact. In Part 2, select 'other' as the reason for screening, and specify 'source case investigation'.

- Test and follow-up contacts using the **TB Contact Testing Flowchart** (see **page 25**).

  NOTES:

    - See **Contact Identification Letter (Appendix D) and What to Expect if you are a TB Contact (Appendix E).**

    - A TST ≥ 10 mm is considered positive.

- Chest x-rays taken within the prior month may be used in place of taking new x-rays provided the contact is **asymptomatic AND** the findings were reported as "**normal**".

A physician order is required prior to taking shielded chest x-rays of a client who is or might be, pregnant.

- Update the **Tuberculosis Investigation Record** with testing dates and results/findings as they become available.
- Send the **Tuberculosis Investigation Record** to the CDCN once the majority of contacts have completed screening.
- Consult the CDCN about:
  - Contacts with:
    - Symptoms
    - New positive TST results
  - Contacts who:
    - Did not return for TST reads
    - Refused screening
    - Could not be found
    - Did not respond to attempts to provide screening

Step 4: Review Findings with the CDCN

Source case investigations are not usually expanded unless a source case was not found **AND** TST converters or children with active TB are identified among those tested. Decisions

DO NOT expand or close a source case investigation without consulting the CDCN.

on when and how to expand a source case investigation are made by the CDCN, in consultation with the MOH.

If the CDCN recommends that the source case investigation be expanded:

- Re-interview the client (and/or the parent/guardian) if necessary, to identify additional contacts.
- Update the **Tuberculosis Investigation Record** with information on additional contacts and send it to the CDCN.
- Begin screening additional contacts as soon as possible as per **Step 3**.
- Update the **Tuberculosis Investigation Record** with testing dates and results/findings as they become available.

Step 5: Close the Source Case Investigation

Once all or results have been received and the CDCN recommends that the contact investigation be closed:

- Ensure the "current status" section of the **Tuberculosis Investigation Record** is completed for every contact;

DO NOT designate contacts whose screening was not completed as "CLOSED".

- Send an updated copy of the **Tuberculosis Investigation Record**, marked "FINAL", to the CDCN and place the original in the Community Health chart of the case.
- File the original copy of the **TBAF** in the client's Community Health chart.