

Prioritization of contacts

Prioritization of contacts is based on the characteristics of the case, the individual risk factors of the contact, and the environment in which the exposure occurred.

1. Case Characteristics to consider:

- Pulmonary, laryngeal, or pleural TB disease
- Suspected pulmonary, laryngeal, or pleural TB disease
- Positive AFB Sputum smear
- NAA positive or not done
- Negative AFB Sputum smear with abnormal chest x-ray, consistent with active TB disease
- Cavitory lesion on chest x-ray
- Chest x-ray consistent with TB disease

2. Contact Risk Factors:

a. High priority contacts:

- HIV-infected
- Household contacts
- Contacts living in congregate settings
- Contacts aged less than 5 years
- Contacts during medical procedures, e.g., bronchoscopy, sputum induction, or autopsy
- Contacts with medical risk factors that increase the likelihood for progression to active TB disease, e.g. silicosis, diabetes mellitus, a history of gastrectomy or jejunioileal bypass surgery.
- Contacts receiving >15mg of Prednisone or its equivalent for > 4 weeks.
- Contacts receiving other immunosuppressive agents, including chemotherapy, anti-rejection therapy, tumor necrosis factor alpha (TNF-alpha) antagonists
- Contacts who exceed the environmental exposure limits for high-priority contacts.

b. Medium priority contacts:

- Contacts aged 5 through 14 years
- Contacts who exceed the environmental exposure limits for medium-priority contacts.

c. Low priority contacts:

- Contacts who are below the threshold for classification as medium-priority contacts

3. Environmental exposure limits for classification of contacts

a. High priority Contacts

- ≥ 8 hours in a small poorly ventilated space
- ≥ 16 hours in a small well ventilated space
- ≥ 24 hours in a classroom size space
- ≥ 100 hours in a large open area

b. Medium Priority Contacts

- ≥ 4 hours in a small poorly ventilated space
- ≥ 8 hours in a small well ventilated space
- ≥ 12 hours in a classroom size space
- ≥ 50 hours in a large open area

Responsibility:

The TB coordinator or Public Health Nurse responsible for the case management of the TB case is responsible for the overall coordination and management of the contact investigation.

Regional Epidemiologists, school nurses, and others may assist in the contact investigation.

These activities include

1. The identification and classification of all contacts as high-priority, medium-priority, and low-priority for the contact investigation,
2. Meeting the timeframes for initial follow-up of contacts of persons exposed to active TB disease (Table p. 49),
3. TB Risk Assessment, placement of TSTs or drawing blood for BAMTs, and contact education beginning with high-priority contacts and proceeding to medium-priority contacts,
4. Reading of TSTs and classification of TST results, or interpreting BAMT results
5. Medical evaluation and chest x-rays for contacts with TSTs or BAMTs classified as “positive”,
6. Obtaining sputum specimens on any contact with suspected active TB disease,
7. DOT for any contact with suspected active TB disease,
8. The initiation of treatment for LTBI for any contact with a TST or BAMT classified as “positive” who did not have active TB disease,
9. Repeat TSTs or BAMTs in 8 to 10 weeks for those contacts whose TST or BAMT initially was classified as “negative”, and
10. Promotion of completion of treatment for LTBI for those contacts started on LTBI treatment.

Contact investigation by other healthcare facilities:

Local health departments should monitor other healthcare facilities to:

1. Assist in identifying high and medium-priority contacts
2. Ensure complete and accurate collection of data
3. Collect and evaluate data for TST or BAMT results
4. Provide standardized forms
5. Provide medication if indicated

6. Ensure monthly monitoring of those on treatment for LTBI
7. Provide expert guidance for treatment and management issues

Documentation / Reporting:

The contact investigation roster should be completed for all initiated contact investigations. A linking identification (ID) number should be assigned to the contact roster and documented in the medical record of the index case and all identified contacts. A recommended format for the contents of the linking ID number is “county code plus year (2 digits) plus local TB case number for the year, e.g. 001-10-001 would be the code for the first TB case for 2010 in Adair County. A detailed listing of county codes is located in the AR Volume II: Patient Services Reporting System.

A copy of the Contact Investigation Summary should be completed and maintained in the medical record of the index case. The Contact Investigation Summary form is in the TB Forms chapter. The contact investigation roster should be kept in a separate file and should not be placed in the medical record of the index case or the medical record of any of the identified contacts.

A copy of the contact investigation summary shall be sent to the state TB Program 30 days after initiating the contact investigation.

Initiation of contact investigation:

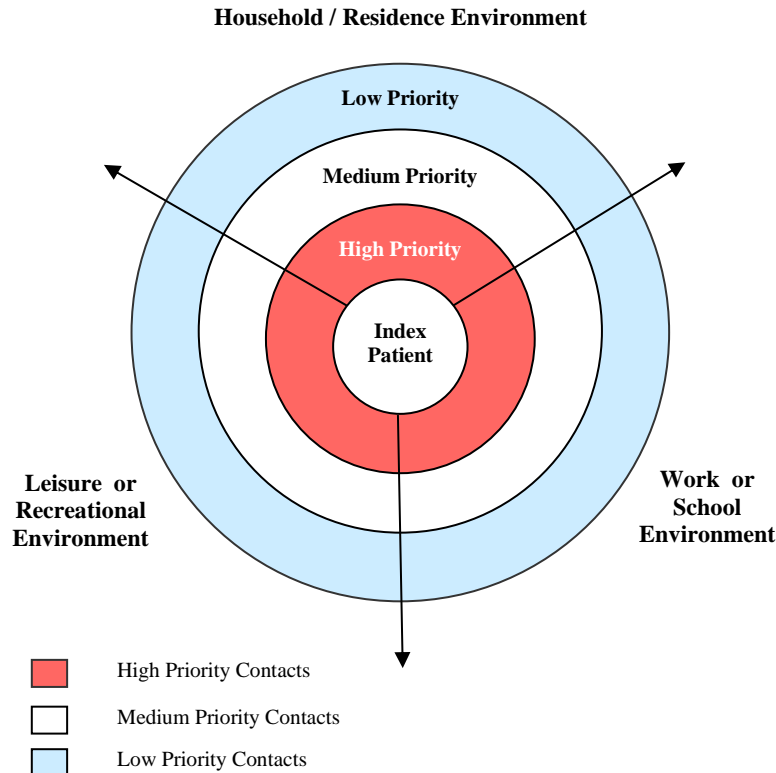
Initiate a contact investigation within one business day of becoming aware of a new active TB case. Start with a face to face interview with the active TB case and/or family members, whenever possible. Additional steps in the investigation should meet the timeframes for initial follow-up of contacts of persons exposed to active TB disease (see, Table p. 49).

Evaluation of contacts:

1. Evaluate high-priority contacts to laryngeal, pulmonary, or pleural active TB disease within 7 days of notification.
2. Evaluate medium-priority contacts to laryngeal, pulmonary, or pleural active TB disease within 14 days of notification.
3. Low priority contacts should not be tested unless objectives for high and medium-priority contacts are being met. If a decision to do a TST or BAMT on a low-priority contact has been made, the initial test can be delayed until 8-10 weeks after the most recent exposure.
4. Complete initial investigation of contacts within 30 days.
5. Infants, children aged less than 5 years and HIV positive individuals have highest priority for immediate evaluation and initiation of LTBI treatment as indicated.
6. Provide HIV counseling, testing, and referral on all contacts.

MMWR Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis, Recommendations from the National Tuberculosis Controllers Association and CDC, December 16, 2005, Vol.54, No. RR-15, p 12.

Contact Investigation and the Concentric Circle Approach



Steps in a Contact Investigation

The first step in a contact investigation is to review the TB patient's medical records and ask the clinician for information to determine whether the patient has been infectious, and if so, when. Knowing the index patient's infectiousness helps decide which contacts to focus on and which contacts are at risk.

Collect basic data:

- The site of active TB disease
- TB symptoms and date symptoms began
- AFB Smear/ TB culture results
- CXR date and results
- DOT or self-administered treatment
- TB treatment (drugs, dosage, and date treatment started)

10 Tips on the Concentric Circle Approach

- 1) Start ASAP
- 2) Work in the field (not just the office)
- 3) Begin in the center ring and work outward
- 4) Proceed simultaneously on all three fronts
- 5) Don't be pressured easily to expand your circles; keep control. We know there can be panic when a group or community of people find out about a case of TB being investigated among them
- 6) Don't forget that there are circles in time as well as space
- 7) Evaluate your data every step of the way. What are they telling you about the source case? What needs to be done next?
- 8) If stymied, let people know you must and will proceed with or without them.

9) Call for reinforcement if necessary

10) Don't forget the follow-up TST or BAMT at 8 to 10 weeks. Some contacts will not have converted until then.

Remember: Because priority assignments are practical approximations derived from imperfect information, priority classifications should be reconsidered throughout the investigation as findings are analyzed.

See: Contact Investigation for Tuberculosis; CDC Self-Study Module #8