Review of Contact Investigations

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A Deeper Dive into TB Nurse Case Management

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Objectives

Participants will be able to…

1. describe the systematic approach to conducting a contact investigation.

Disclaimers

For this presentation, the term "case" will be used instead of "index patient" or "patient"

Although "case" may seem impersonal, the rationale for using it is to avoid confusion with contacts who may also be considered "patients" if they are found to have latent TB infection (LTBI) or TB disease.

This presentation also assumes that one has already decided to initiate a contact investigation.
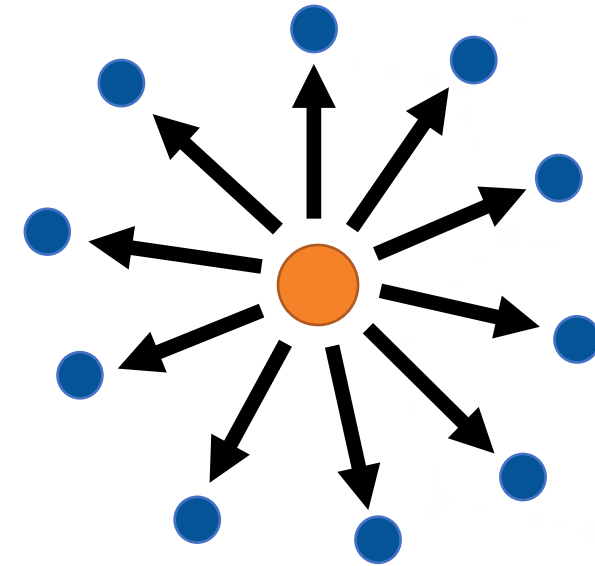
What is a contact investigation?

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A systematic process to:

- identify persons (contacts) exposed to someone with infectious TB disease
  - Household members
  - Friends
  - Co-workers
  - Others (cellmates, shelter residents, etc.)

- assess contacts for infection with M. tuberculosis and TB disease

- provide appropriate treatment for contacts with LTBI or TB disease

● **Source**
● **Contact**

Why talk about contact investigations?

Priority TB Prevention & Care Activities

1. Identify and treat persons who have active TB disease.

2. Find and evaluate persons who have been in contact with TB cases and provide appropriate latent TB infection (LTBI) or TB disease treatment as needed.

3. Use targeted testing strategies to identify and treat persons with LTBI at risk for developing TB disease.

4. Identify settings at high risk for transmission of *M. tuberculosis* and apply effective infection-control measures.

Importance of Contact Investigations

Contact investigations allow TB programs to:

- stop transmission

- identify the source case

- prevent future cases of TB disease

- evaluate and treat recently exposed persons

*On average, **10** contacts are identified for each case

- **20% to 30%** of household contacts have **LTBI**

- **1%** of contacts have **TB disease**

Contact Investigation Team

The Contact Investigation team may include:
- contact investigators
- case managers
- public health investigators
- surveillance coordinators
- program managers
- DOT workers
- disease intervention specialists (DIS)

How do you conduct a contact investigation?

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- TB Programs should use a systematic approach to conduct Cis

- Using a systematic approach helps to ensure the contact investigation is carried out effectively and efficiently

Systematic Approach to Contact Investigations

The systematic approach includes 10 steps:

1. Review existing information about the case
2. Determine an initial estimate for the infectious period and estimate the degree of infectiousness
3. Interview the case
4. Review information and develop a plan for the investigation
5. Refine the infectious period and degree of infectiousness
6. Prioritize contacts
7. Conduct field visits
8. Conduct contact assessments
9. Determine whether to expand or conclude an investigation
10. Evaluate the contact investigation activities

These steps may not always be done in sequential order

Review Existing Information

- The process of reviewing existing information is sometimes called the <u>pre-interview phase</u>

- Reviewing information before the initial interview can ensure the right questions are being asked

Information to Collect and Review Before the Initial Interview

Become familiar with the case's <u>social history</u>

- Case name(s), aliases, date of birth, gender, all known addresses, telephone number(s), preferred language
- Substance abuse, mental illness, or other issues that could affect the interview or contact investigation
- Social or behavioral risk factors increasing the risk of TB
- Known contact names, particularly children or persons with weakened immune systems
- History of jail or homelessness
- History of immigration or travel

Information to Collect and Review Before the Initial Interview

Become familiar with the case's <u>medical history</u>

- Current site(s) of TB disease
- Current TB treatment regimen
- TB symptoms and estimated onset date
- Chest x-rays and/or other diagnostic imaging dates and results
- TST or IGRA dates and results
- Sputum smear and culture dates and results
- NAA test dates and results
- Genotype results (if available)
- HIV test dates and results
- Details about prior diagnosis with LTBI or TB disease, and any treatment
- Medical risk factors that could have increased the case's risk for infection with *M. tuberculosis* or development of TB disease

Sources of Information for TB Case

- Medical records

- Public health records
  - Cross-check case name with local TB registries and databases to determine if previous diagnosis of LTBI or TB
  - Cross-check with STD and HIV registries, if possible

- Case's clinician

- Report of Verified Case of Tuberculosis (RVCT)

- TB Genotyping Information Management System (TB GIMS)

Interview the Case

- **What is the main goal of a TB interview?**

  The mail goal of a TB interview is to identify contacts.

- **Why is this goal important?**

  For assessing contacts for TB disease and infection and start them on appropriate treatment.

How Do You Identify Contacts?

Ask the case about the following during their infectious period:

- Places *WHERE* they spent time

- Persons with *WHOM* they spent time

- Participation in activities and events (*WHAT* and *WHEN*)

What are the Other Objectives of the TB Interview?

- Establish rapport

- Educate about TB and Contact Investigation process

- Discuss confidentiality

- Gather and confirm information

How Many Interviews Should Be Conducted?

- Two interviews is the minimum (initial interview and re-interview)

  - May need more interviews to develop rapport

  - Often need to build on previously collected information

- Additionally, every DOT encounter is an opportunity to learn about more contacts

The Interview Format

- Introduction

- Education

- Information collection and confirmation

- Contact Identification

- Conclusion of the interview

TB Contact Investigation Interview Checklist

Pre-Interview Activities
- Review medical record
- Establish preliminary infectious period
- Develop an interview plan
- Arrange interview time and place

A. Introduction
- Introduce self
- Provide identification
- Explain role in TB prevention and care
- Build trust and rapport
- Explain purpose of the interview
- Ensure confidentiality

B. Information and Education Exchange
1. Observe patient's physical and mental state, body language, and communication skills
2. Collect and confirm the following information:

___ Name	___ Known exposure to TB
___ Alias(es)/nicknames	___ Recent hospitalization(s) for TB
___ Date of birth	___ Medical provider for TB
___ Address	___ Transportation availability
___ Telephone number	___ Other medical conditions
___ Next of kin	___ Outpatient DOT plans
___ Other locating information	___ Barriers to adherence
___ Physical description	

3. Assess disease comprehension/provide TB education
4. Obtain and confirm TB symptom history
5. Discuss case's current diagnosis
6. Discuss disease intervention behaviors, infection control, and medical appointments
7. Refine infectious period and review with the patient

C. Contact Identification
- Focus on infectious period
- Explain priority and non-priority contacts
- Stress importance of identification off all contacts
- Collect information on patient's contacts in the household, workplace, school, congregate settings, and social/recreational environments during the infectious period
- Information about contacts should include:

___ Name	___ Other locating information
___ Alias(es)/nicknames	___ Physical description
___ Age, race, sex	___ Hours of exposure per week
___ Address	___ Dates of first and last
___ Telephone number	exposures

D. Conclusion of the Interview
- Request, then answer patient's questions
- Review and reinforce adherence plan
- Restate next appointment (if known)
- Arrange reinterview and home visit (if not already completed)
- Leave your name and telephone number
- Thank the patient and close interview