

Contact Investigation Effectancy

Fusing efficiency with effective interviewing to improve outcomes

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Reference

Guidelines for the Investigation of Contact of Persons with Infectious Tuberculosis

**Recommendations from the National Tuberculosis
Controllers Association and CDC**

MMWR, December 16, 2005

54(No.RR-15)

TB Control and Prevention

- **Priority 1 – Index patient**
 - Promptly detect, report and treat with effective drug regimens all persons who have, or are suspected of having, active TB disease
- **Priority 2 – Contact investigation**
 - Identify close contacts of patients with contagious TB and completely treat those who are found to be infected
- **Priority 3 – Targeted testing**
 - Prevent TB among populations infected with LTBI who are at greatest risk for progressing to disease
- **Priority 4 – Infection control**
 - Prevent transmission in settings at high risk for transmission through effective infection control measures

Contact Investigation

A Critical TB Control Strategy

- Most effective strategy for preventing future cases of TB
- On average, 10 contacts are identified for each person with infectious TB in the U.S.
- 30 - 40 percent of contacts will be infected
- Of those with new TB infection, 5% will progress to active disease within two years of exposure
- The prevalence of TB among close contacts is close to 100 fold higher than in the general population

Definitions

- **Index case:**
 - The first patient that comes to your attention as a TB Case
- **Contact:**
 - Refers to someone who has been exposed to tuberculosis by sharing air space with a person who is infectious
- **Infectious period:**
 - When a person with infectious TB disease is capable of transmitting TB bacilli

Definitions

- **Exposure:**

- Length of time spent with a person with active infectious TB disease during the infectious period

- **Date of last exposure:**

- Date a contact was last exposed to an infectious case of TB

- **Source Investigation:**

- An investigation which seeks the source of recent TB infection. This activity most commonly occurs when young children are involved.

Contact Investigation Process

Pre-interview phase begins when medical report is received



Index case interview



Initial field investigations and contact interviews



Medical assessments of high and medium priority contacts



Evaluation of outcomes performed throughout the investigation

Contact Investigation Process

Pre-interview phase begins when medical report is received



Index case interview



Initial field investigations and contact interviews

Pre-interview phase begins when medical report is received

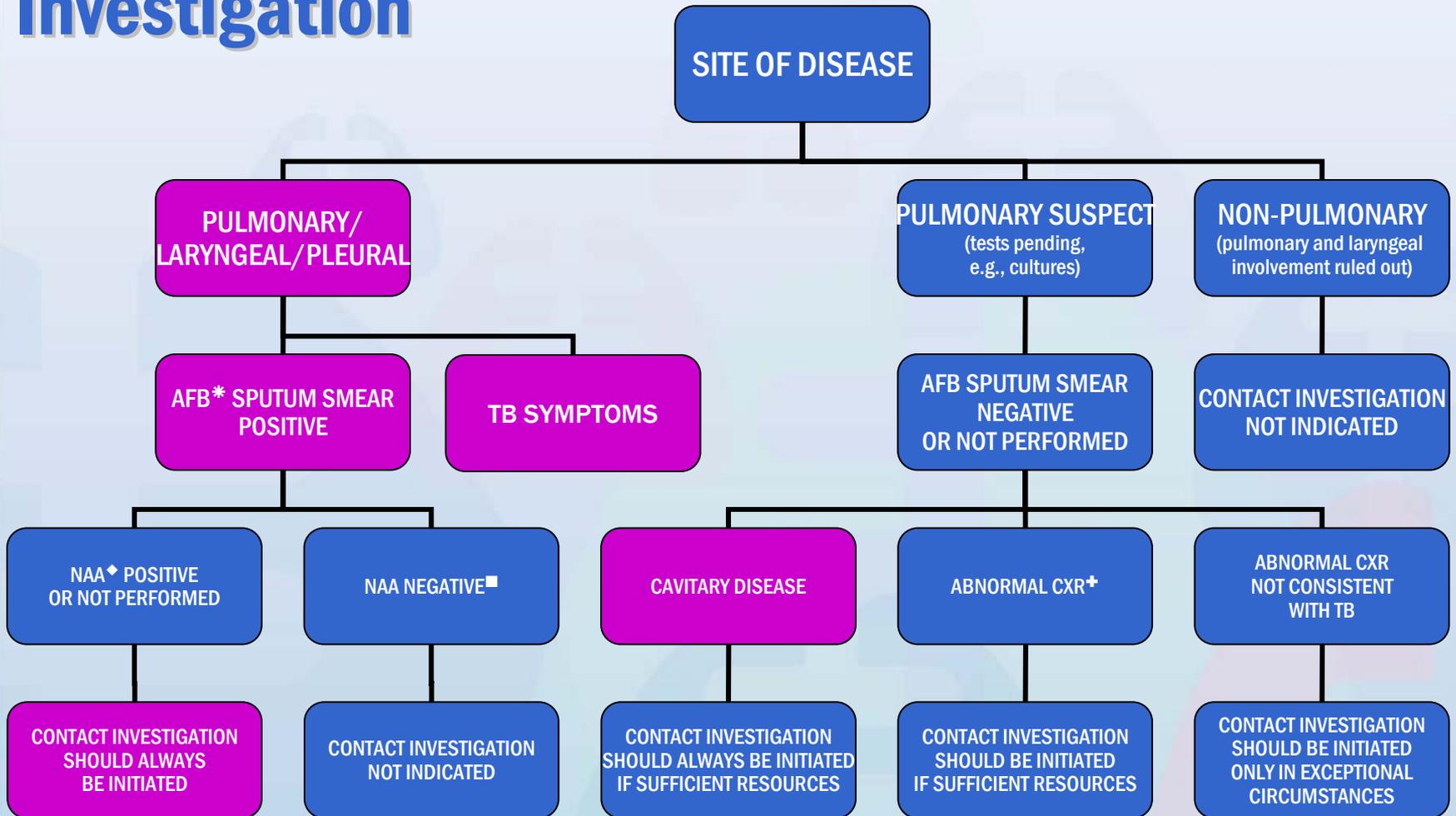


- Is a contact investigation necessary?
- Estimate when the infectious period begin
 - Index case characteristics
 - Site of Disease
 - Symptoms
 - Bacteriology
 - Radiology
 - Social Behaviors



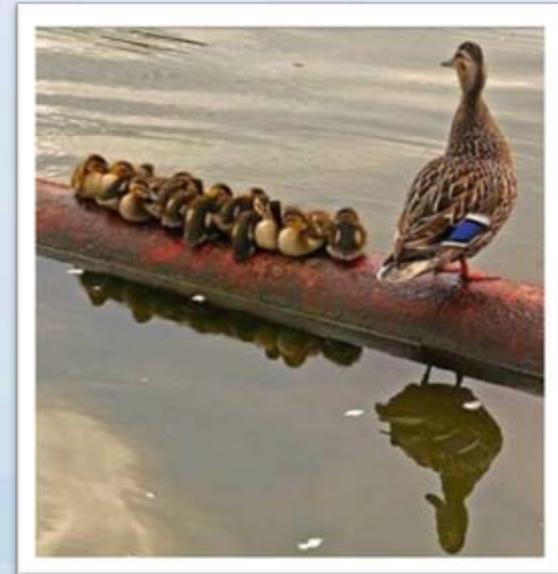
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Determining the need for a Contact Investigation



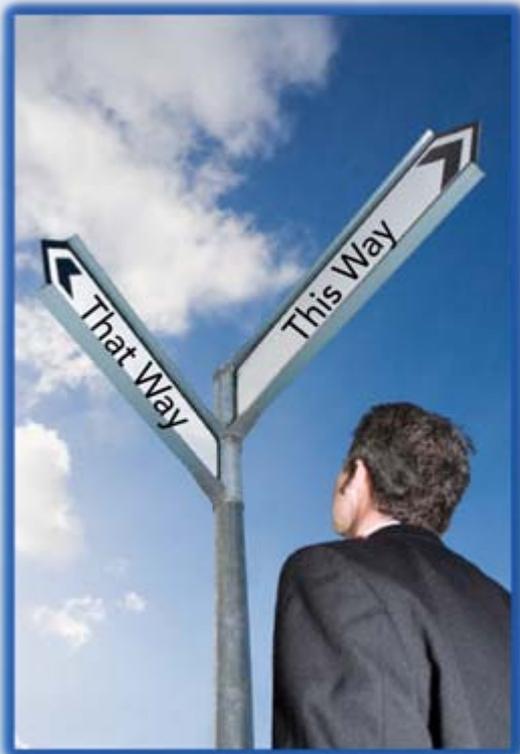
Index case interview

- Within one day of the initial report
- Introduce yourself
- Review medical history
- Provide Education
- Elicit site and contact information
- Review plan of care
- Address barriers to care



What do you do first?

- Prioritize the contacts with the information you have up to this point



- Secondary cases of TB disease
- Those with greatest level of exposure
- Those who are most likely to become ill with TB disease if infected
 - Children < 4
 - Transplant patients
 - HIV-infected/AIDS
 - TNF α antagonist
 - Other immune compromising conditions

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Environmental Factors that Predict Likely Transmission

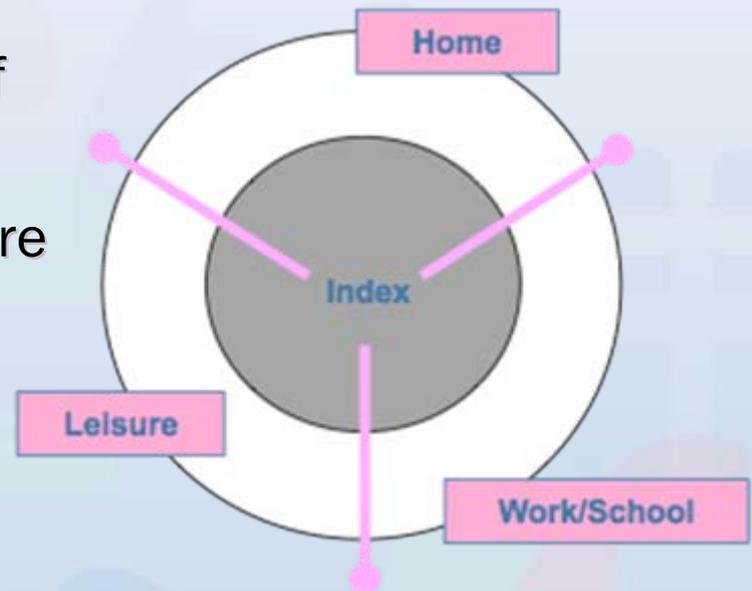
- Small or Crowded Rooms
- Areas that are poorly ventilated
- Re-circulated air
- Areas without air cleaning systems

Grade 1	The size of a car
Grade 2	The size of a bedroom
Grade 3	The size of a house
Grade 4	Bigger than a house

- Monthly hourly total of 120 hrs when exposed to non-cavitary cases
- If seated closely to a contagious patient on a single trip of ≥ 8 hrs

Priority level vs. Concentric Circle

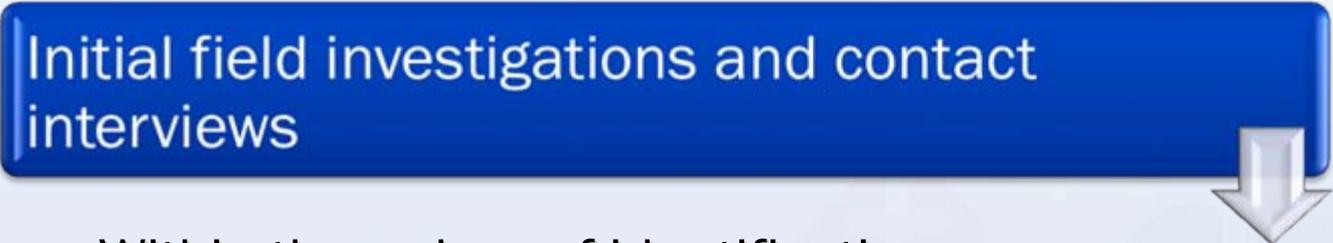
- Current surrogates for estimating exposure do not predict chance of infection
- The vulnerability of the contacts are not accommodated
- Estimates for community prevalence are not known
- When prevalence is known, but high, end-point for the investigation is obscured.



Select the highest priority contact investigation

1. Mother with pulmonary TB living with her three year-old daughter
2. Grandfather with pulmonary TB sharing weekly meals with his family
3. Teen with Lymphatic TB making monthly visits to the HIV clinic
4. Laryngeal TB in your local jail

Initial field investigations and contact interviews



- Within three days of identification
 - Gather background health & psychosocial information
 - Assess extent of exposure to the index case
 - Previous TB disease/testing?
 - Other medical co-morbidities (abnormal CXR, immune compromising disease, medications, mental health)
 - Symptoms of TB?
 - Place the TST at this time if possible
 - Perform HIV test if status is unknown
 - Demographics

Becoming Effectant!

The TB Contact Investigation Interview

- Assures the prompt examination and treatment of contacts to:
 - Prevent the development of disease
 - Prevent the spread and complications of disease
- Purpose:
 - Stop further transmission = prevent future cases
 - Find and treat those with LTBI
 - Identify those at greatest risk for progression for LTBI to disease

Aggressive or Assertive

- Aggressive – to demand one’s rights/position at the expense of others
- Assertive – to claim or maintain one’s rights/ position without compromising the rights of others
 - Act in the best interest of the unknowing contact
 - Stand up for the unknowing contact without anxiety
 - Exercise the health rights of the unknowing contact without denying the rights of the client

Communication Skills

- Demonstrate professionalism
- Establish rapport
- Listen effectively
- Use open-ended (clarifying and probing) questions
- Use appropriate nonverbal communication
- Communicate at the patient's level of understanding
- Give factual information
- Solicit patient feedback

Barriers to Communication

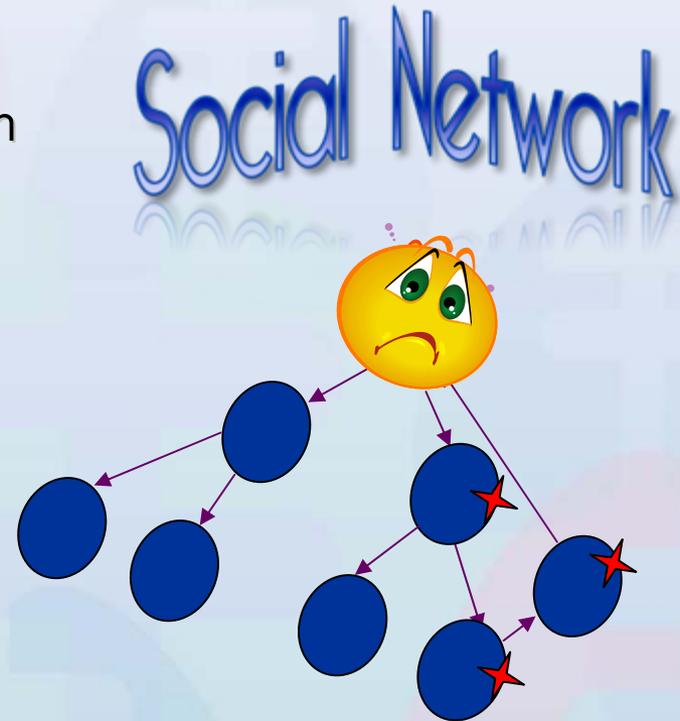
- Moralizing/judging
- Jargon
- Confusing or unorganized messages
- Physical Environment
- Negative and close-ended questions or non-verbal cues
- Pressure tactics
- Interrupting
- Cultural/social/gender biases and barriers

Can you 'motivate' your patients to share information?

1. Yes, I have many tricks in my 'interview tool chest' that help me convince patients to give up information.
2. Yes, most often I can get to the bottom of the 'real story'.
3. Yes and no, I win sometimes and lose sometimes, but I can tell when they aren't telling me the truth
4. No, not really. I often know when I'm told something false but wait for other opportunities to get at the truth
5. No, People can't motivate others to give answers they don't want to give

Motivate + Benefit = Convince

- Who will benefit
 - The contacts
 - Asymptomatic nature of infection
 - Pediatric patients
 - The patient
 - Disease complications
 - Re-infection
 - Public Health
 - Transmission
 - HIV/TB connection
 - Prevent future cases



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It's Inevitable: CONFRONTATION

- Provide accurate information
 - Correct misconceptions
- Directly challenge
 - Address a strongly suspected falsehood
- Auto confrontation
 - Immediately acting on a statement or activity
- Operant conditioning
 - Positive or negative reinforcement

Presenting Accurate Information

- *“I heard you mention that you believe you got TB at work 3 weeks ago when a coworker came to work with a bad cough and fever.”*
- *“From what we know about TB, a person will not get active disease that quickly after they are exposed.”*
- *“It would take much longer than that. You were exposed to someone with TB either many years ago or many months ago.”*

Direct Challenge

- *“I see plenty of photos and children’s items around your home. Tell me about the children that live here or come by to visit, even briefly.”*
- *“You can become quite ill if you drink alcohol during TB treatment. It could also lessen the effectiveness of the medication. How much of the empty 6-pack in the kitchen did you drink?”*

Auto confrontation

- *“You’ve given me a great deal of information about your contacts; phone numbers, addresses, names, nicknames... Thank you for being so forthright.”*
- *“It is important that I get in touch with them as soon as possible.”*
- *“Lets call some of them right now and see when we I can arrange to talk with them.”*

Operant Conditioning

- *“Your willingness to give information is admirable. We can see that you understand the importance of protecting your family and friends from getting sick.”*
- *“You have provided information that will allow us to protect them and you.”*
- *“One week later: Much of the information you’ve given us is inaccurate. To ensure your family and friends do not become ill you must tell us the truth. We can not protect you from future re-infection or their anger if they find out you did not give us accurate information.”*

Group exercise

1. Select one partner to make groups of two, an interviewer and a patient (index patient/contact)
2. Each group will have a 'problem' that the patient will be aware of
3. **Do not** reveal the problem to the interviewer
4. The interviewer should use as many 'effectant' methods as possible to get to the root of the information the patient *doesn't want to reveal*
5. You will have 10 minutes
6. Followed by discussion

Acknowledgment

- Bruce Health, PHA, TB Program Consultant
- Phil Talboy, Deputy Director, DTBE
- References
 - Guidelines for the Investigation of Contact of Persons with Infectious Tuberculosis Recommendations from the National Tuberculosis Controllers Association and CDC *MMWR, December 16, 2005* 54(No.RR-15)
 - Content has been modified from the following curricula developed by the National Network of STD/HIV Prevention Training Centers and CDC – Division of STD Prevention:
 - Introduction to STD Intervention (ISTDI)
 - Advanced STD Intervention (ASTDI)

Questions?

Remember!

Every TB case

Started out as a contact

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