Overview of Contact Investigation

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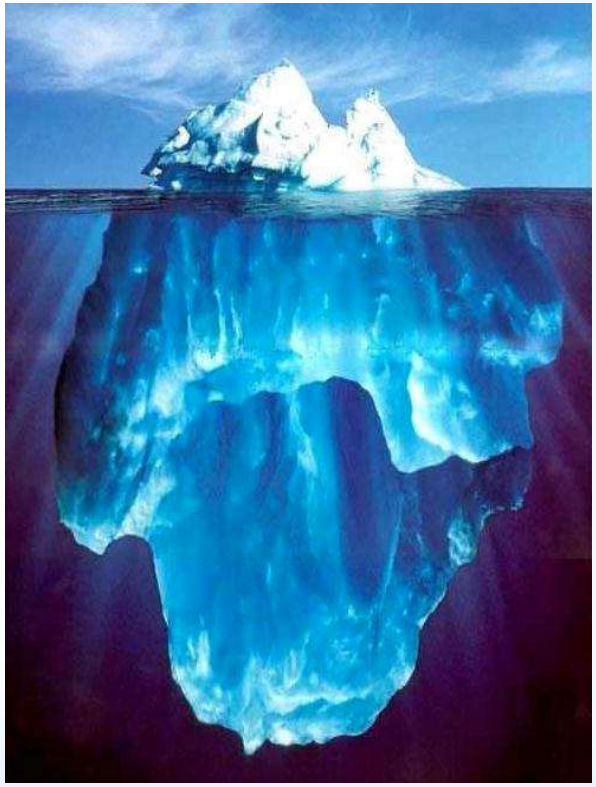
Steven C Trevino, FNP-C
has the following disclosures to make:

- No conflict of interests
- No relevant financial relationships with any commercial companies pertaining to this educational activity

Overview

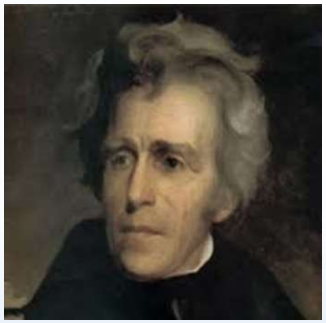
- Decision to Initiate a Contact Investigation
- Foundation of a Contact Investigation
  - Confidentiality
  - Determining the Infectious Period
  - When to Expand the Contact Investigation
- The Interview
  - Pre-Interview
  - First Interview
  - Follow-up Interview
  - Process of Prioritizing Contacts
- Testing, Evaluation and Treatment
- Source-case Investigation



History of Contact Investigation

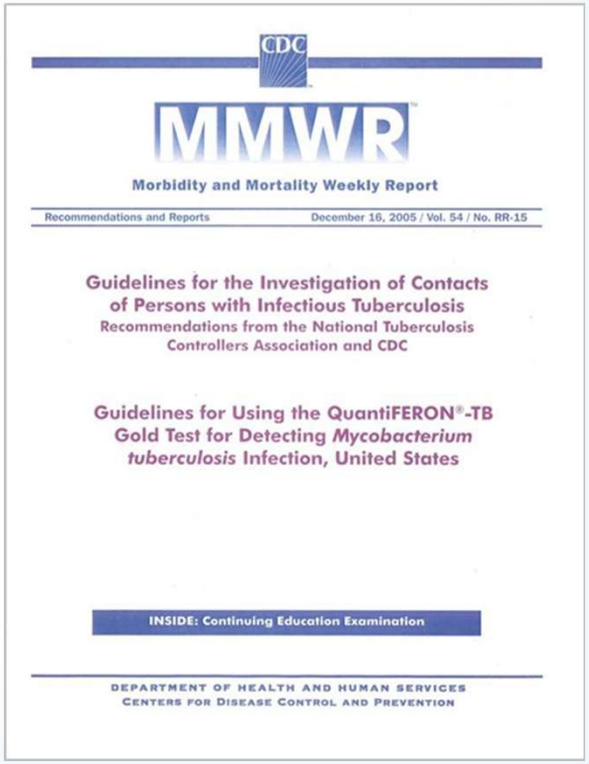
- First Guidelines were published by the American Thoracic Society in 1976 included:
  - Brief guidelines on investigation
  - Diagnostic evaluation
  - Medical treatment of contacts

- Issued jointly by National Tuberculosis Controllers Association (NTCA) and CDC



History of Contact Investigation

- 2005 Expanded Guidelines with recommendations reflecting expert opinions from years of common practices.
- Jointly issued by NTCA and CDC
- These Guidelines do not fit every circumstance.
- The Guidelines are not “one size fits all”.
- Consideration must be taken into account for all specific situations.


CDC

MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports — December 16, 2005 / Vol. 54 / No. RR-15

Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis

Recommendations from the National Tuberculosis Controllers Association and CDC

Guidelines for Using the QuantiFERON®-TB Gold Test for Detecting *Mycobacterium tuberculosis* Infection, United States

INSIDE: Continuing Education Examination

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

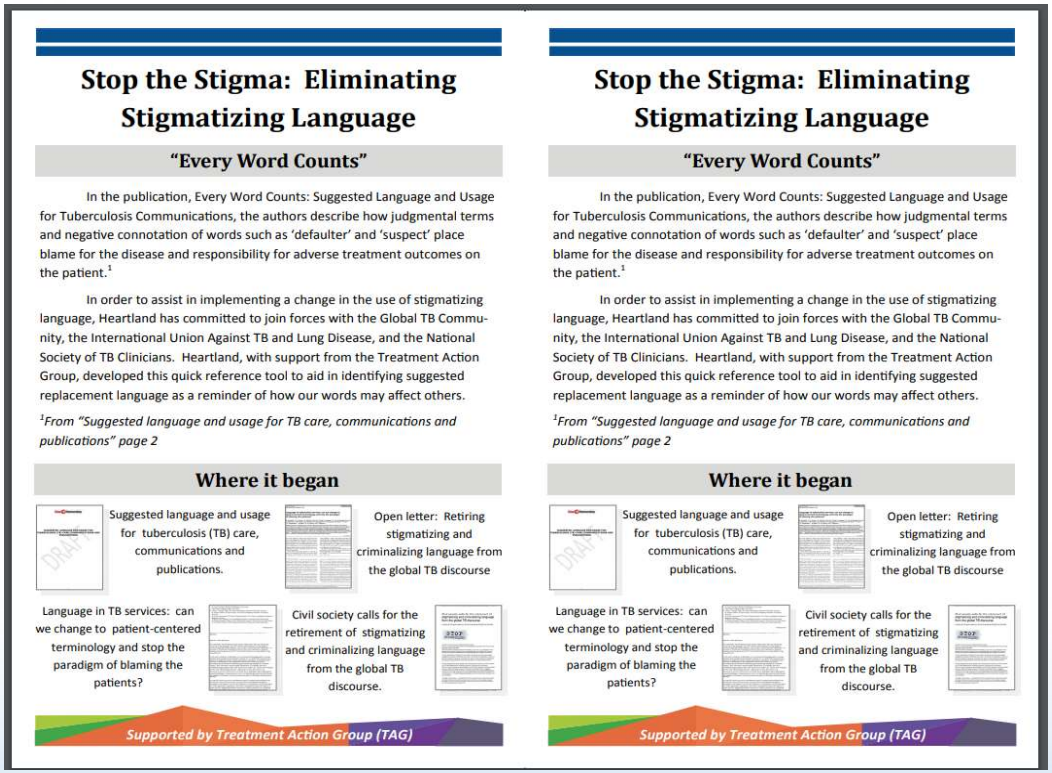
Eliminating the Stigmatizing Language

Heartland has joined forces with patient advocates globally to eliminate stigmatizing language used in TB care that is not only hurtful but also judgmental, criminalizing, and places blame on patients.

"Stop the Stigma" is a campaign to spread awareness and promote elimination of the use of stigmatizing language. Heartland invites you to join them and pledge yourself, your organization, and challenge others to pledge as well.

Links to: Heartland's Eliminating Stigmatizing Language Webpage
https://www.heartlandntbc.org/stopthestigma/
Fact Sheet
https://www.heartlandntbc.org/stopthestigma/FactSheet_Final_5_19_16.pdf
Pledge form to join with them
https://www.heartlandntbc.org/stopthestigma/Pledge_NTCA.pdf
Pledge sign
https://www.heartlandntbc.org/stopthestigma/PledgeSign.pdf

Heartland's Eliminating the Stigmatizing Language Fact Sheet



Stop the Stigma: Eliminating Stigmatizing Language

"Every Word Counts"

In the publication, Every Word Counts: Suggested Language and Usage for Tuberculosis Communications, the authors describe how judgmental terms and negative connotation of words such as 'defaulter' and 'suspect' place blame for the disease and responsibility for adverse treatment outcomes on the patient.[1]

In order to assist in implementing a change in the use of stigmatizing language, Heartland has committed to join forces with the Global TB Community, the International Union Against TB and Lung Disease, and the National Society of TB Clinicians. Heartland, with support from the Treatment Action Group, developed this quick reference tool to aid in identifying suggested replacement language as a reminder of how our words may affect others.

[1]From "Suggested language and usage for TB care, communications and publications" page 2

Where it began

Suggested language and usage for tuberculosis (TB) care, communications and publications.

Open letter: Retiring stigmatizing and criminalizing language from the global TB discourse

Language in TB services: can we change to patient-centered terminology and stop the paradigm of blaming the patients?

Civil society calls for the retirement of stigmatizing and criminalizing language from the global TB discourse.

Supported by Treatment Action Group (TAG)

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Purpose For Finding Contacts

- Prevent the spread of disease
- Screen, evaluate and treat infected contacts
- Prevent TB infection from becoming TB disease
- Identify the source-case
- Identify secondary cases

Decision to Initiate Contact Investigation

Contact Investigation SHOULD be initiated if:

Site of disease:

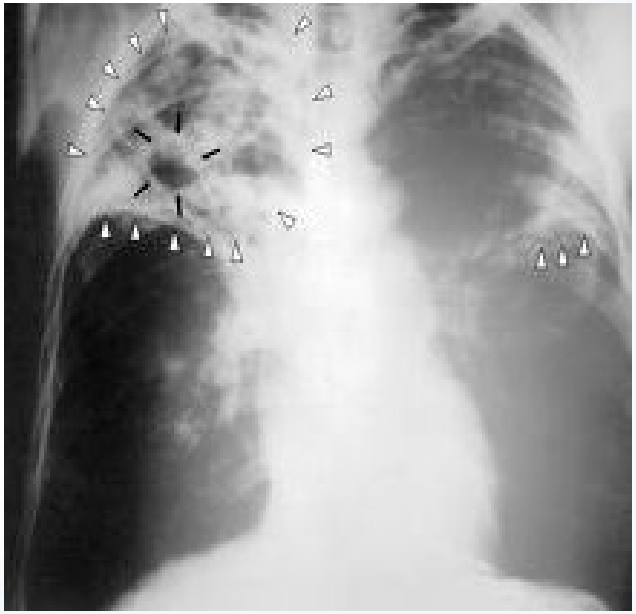
- pulmonary, laryngeal or pleural TB

CXR/CT findings:

- cavitary disease
- consistent with pulmonary TB

Infectiousness:

- sputum smear positive for AFB
- CI not recommended if NAAT is negative



Decision to Initiate Contact Investigation

Contact Investigation should NOT be initiated if:

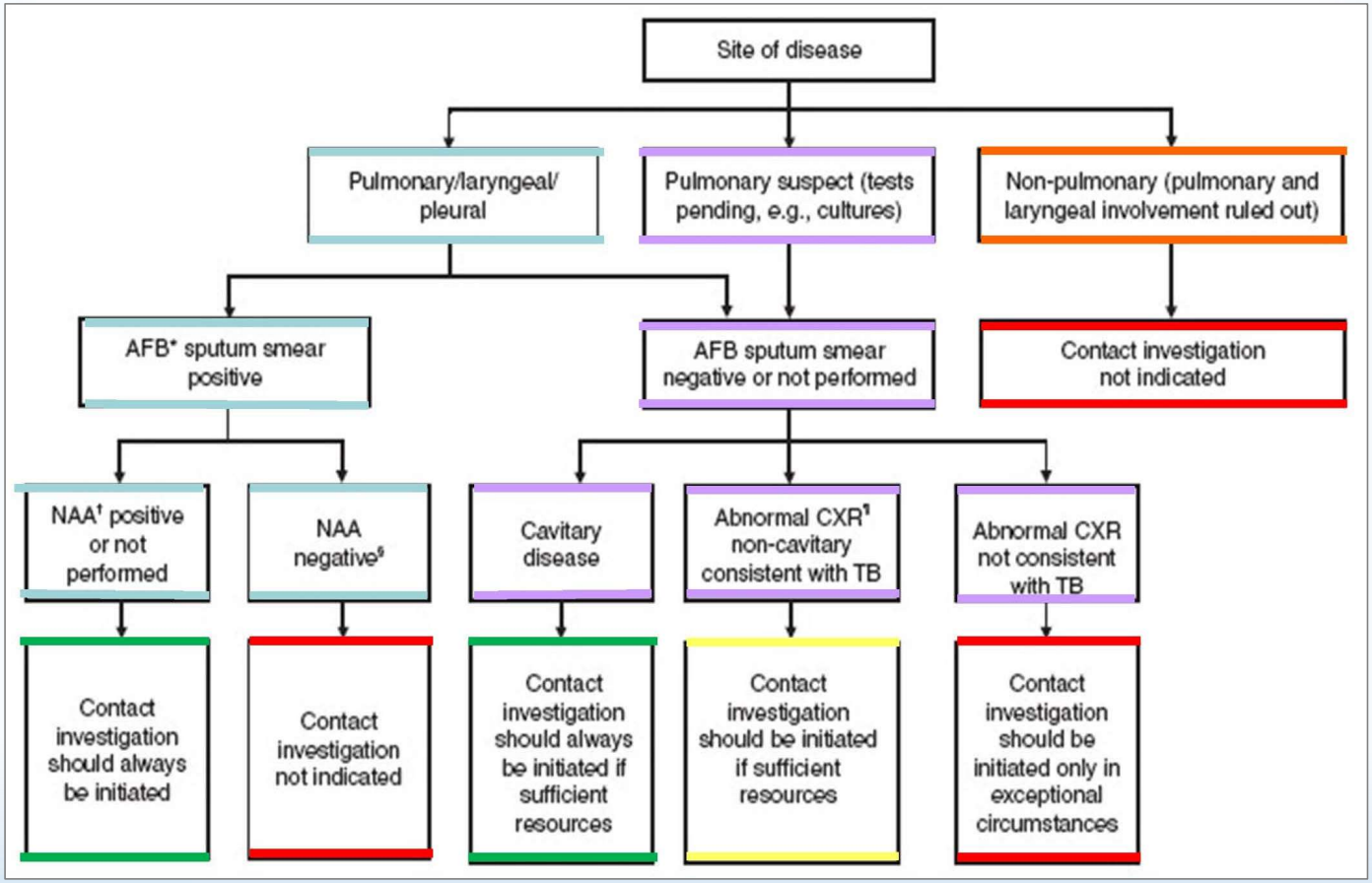
Risk of transmission decreased with:

- children < 10 yo

HIV co-infection:

- low T-cell counts commonly have atypical germs

What Characteristics Should We Consider in Our Decision to Initiate an Investigation?



When to Expand a Contact Investigation

- High infection rate
  - Louisiana 20% positive results
  - CDC 10% or twice the number anticipated
- Evidence of secondary transmission
  - Contacts found to have active TB disease
- Positive result on any child < 5 yo
- Change in infection rate
  - positive results on follow-up testing on those who initially tested negative
- Achievement of program objectives
  - Infection rate ≥ goals
- LTBI in low risk contacts

Case Study 1

Office of Public Health has recently received a report by a local hospital that Sally, a 32 year old female, is suspected of having pulmonary TB. Sally has reported complaints of low-grade fever, cough and a 30 lb. weight loss in the last 3 months. Interpretation of her chest x-ray indicates a left upper lobe cavitary lesion, and a sputum lab result is positive for AFB with a smear count of 3+.

Case Study 1

- Is a contact investigation needed for Sally?
- What information is pertinent in planning a contact investigation?
- What other information is needed?

Case Study 2

Mr. Parker is a 25 year old man who was seen at a walk-in clinic with complains of shortness of breath, a weak non-productive cough, fatigue and weight loss. He recently immigrated from Mexico with a positive IGRA. Three sputum smear results were negative for AFB, cultures are pending, and a chest x-ray had no indications of cavitary lesions. He lives with his wife in a small apartment. He was started on a four-drug regimen by the clinic physician and was referred to the Public Health Department for follow-up.

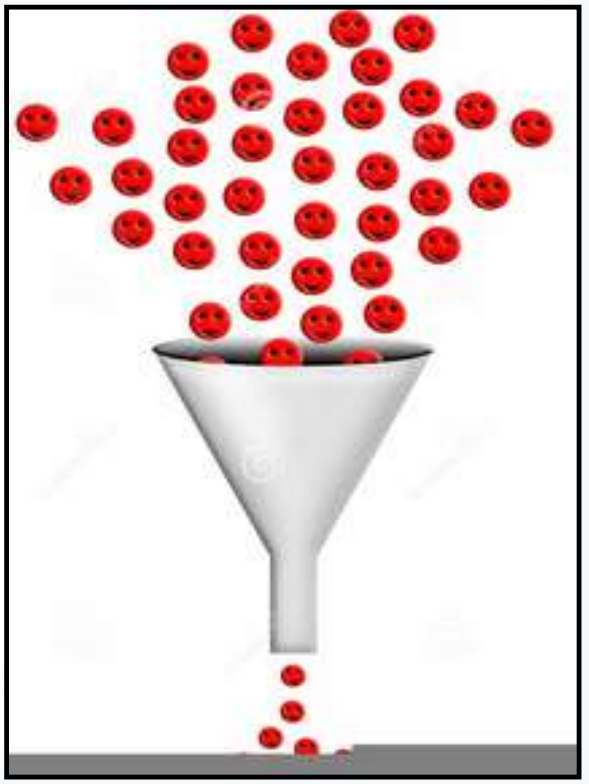
Case Study 2

- Is a contact investigation needed for Mr. Parker?
- What information is pertinent in planning a contact investigation?
- What other information is needed?

Essential Elements of Contact Investigation

Comprehensive information for efficiency includes:

- History of exposure/disease
- Disease characteristics
  - pulmonary, laryngeal or pleural TB
  - Cavitary or non-cavitary
- Onset of illness
  - Date symptoms began
  - Bacteriology results
  - Extent of Disease
- List of contacts names
- Transmission settings



Foundation of a Contact Investigation

Based on:

- Patient Confidentiality
- Patient Interview
  - Preparing for the Interview
  - Initial Interview
  - Follow-up Interview(s)
- Defining the Infectious Period
- Developing a Plan of Action

Keep It Confidential

- HIPAA – patient confidentiality is the Law!
- Essential to maintaining credibility
- Protects the integrity of the investigation
- Prevents public scrutiny of patients and contacts

Why determine the Infectious Period?

- Focuses investigation on contacts at highest risk for infection
- Sets the time frame for testing contacts
- Infectious period is a practical estimate of time
- Beginning may be as far back as a year *
- Close may be extended **
  - Changes follow-up testing
- Utilize information obtained from
  - Patient interview
  - Other sources

Determine the Infectious Period

Begins

- 3 months before diagnosis
- 3 months before positive tests
- At the onset of symptoms
- Could go back as far as 1 yr
- Use holidays

Closes (ends)

- Effective treatment ≥ 2 weeks
- Improvement of symptoms
- Decrease in bacteriology (smear positivity)

Preparing For The Interview

Gather background information

- Current medical record
- Hospital infection control nurse

Relevant factors

- History of TB exposure/disease/treatment
  If so, prior completion of treatment?
- Site and Extent of TB disease (cavitary?)
- Presence of symptoms
- Onset of symptoms
- CXR/CT results
- Bacteriology – dates, specimen numbers
- Co-morbidities

The Interview

- Establish rapport at every opportunity!
  - Relieves concerns of stigma & embarrassment
  - Enhances likelihood of patient sharing information
  - Always assure privacy

The Interview:*

- Allows public health worker to gather information

- Allows patient opportunity to learn about TB
  - Plan for adequate time with patient – at least an hour **
  - Be considerate of patient's endurance
  - Be prepared with answers to patient's questions

- There should be a minimum of 2 interviews.

Open-ended Questions

- Tell me what you know about TB.
- How long have you been sick?
- Do you know anyone who has had TB?
- Do you have a significant other?
- Where do you live?
- Where do you work?
- Where do you like to hang out?
- Tell me about your friends?
- How often do you travel?
- What did you do during the Holiday?

The Interview

- HIPAA
- Confidentiality & Privacy!!!
- Discuss confidentiality and privacy several times during the interview to stress importance.

Establish rapport at every opportunity!

The First Interview

- Conduct first interview within one business day of reporting.
- Establish rapport at every opportunity!
- Should be conducted in person:
  - In the hospital,
  - At the TB clinic, or
  - At the patient's home
- Refrain from using stigmatizing language.
- The beginning of the infectious period should be set from information obtained at this visit.
- Obtain information about where patient can be located throughout the course of treatment.

Flow of the Interview

Introduction

- Introduce yourself
- State purpose / role
- Explain confidentiality

Establish rapport at every opportunity!

Patient Assessment

- Address patient concerns and disease comprehension
- Social history
- Medical history
- Personal history

Disease Intervention

- Contact Elicitation
- Infection Control

Have You Accomplished Everything?

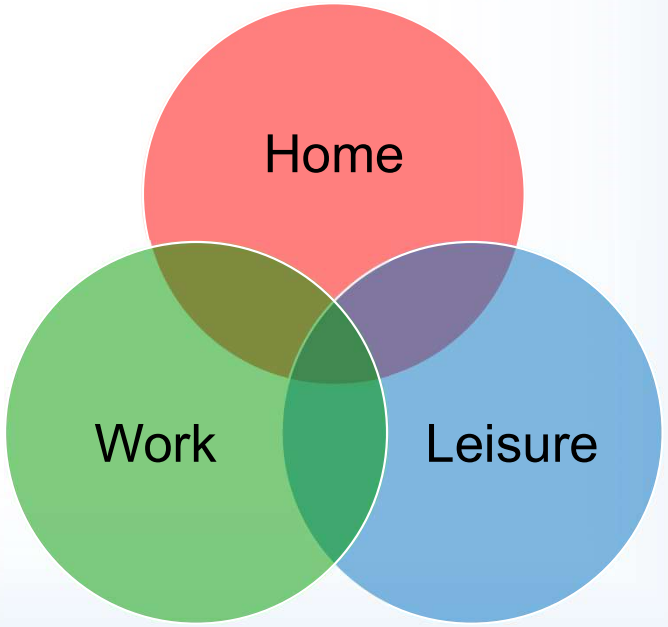
- Express appreciation for the patient's cooperation.
- Establish rapport at every opportunity!
- Provide an overview of the process of a contact investigation.
- Remind the patient of protection of confidentiality.
- Set next interview/visit.
- Thank patient for his time.

The Follow-up Interview

- An extension of the initial interview
- Best site is patients residence
- Confirm information from the first interview*
- Be perceptive – take notice of clues that could indicate a contact**
- Establish rapport at every opportunity!

Proxy Interview

- Key informants likely to know the patient's practices, habits, and behaviors
- Needed from each sphere of life
  - Home
  - Work
  - Leisure
- Beware of breaches in confidentiality



Assigning Priority to Contacts

Priorities are based on:

- likelihood of infection
- potential hazards to the individual if infected

Factors in prioritizing contacts:

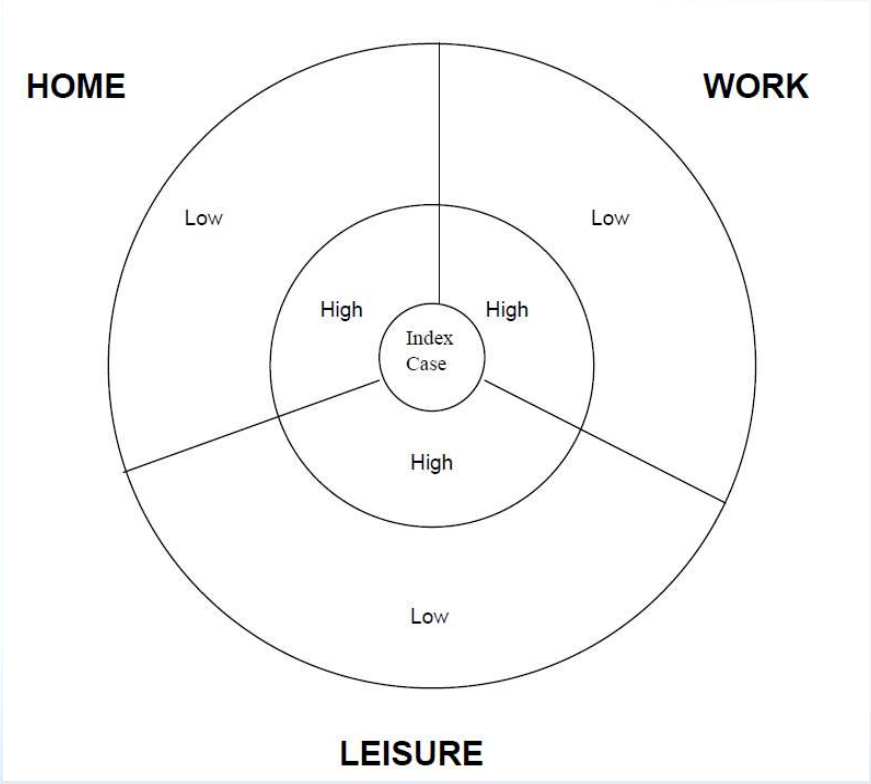
- characteristics of the index patient
- characteristics of contacts
  - Age*
  - Immune status
  - Other medical conditions and risk factors
  - Exposure

Prioritizing Contacts

Concentric Circle Method

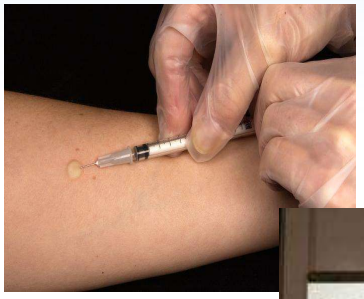
- HIGH
  Contacts with significant exposure or risk factors that increase their chances for developing TB disease

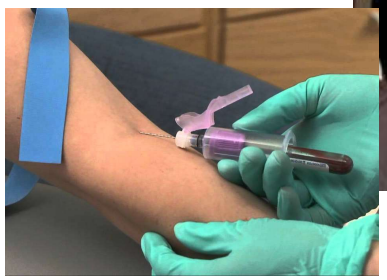
- LOW
  Contacts with minimal exposure and are less likely to develop TB disease



Evaluation of High Priority Contacts

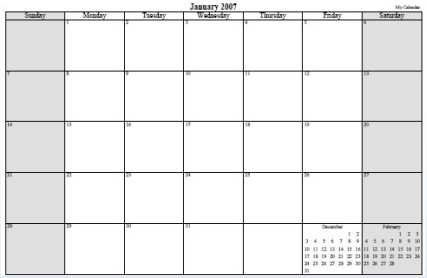
- History of TB infection/disease
- Signs/Symptoms of TB
- Sputum collection if symptomatic
- TST/ IGRA (ASAP!)
- HIV testing
- Chest X-Ray
  - All contacts < 5 yo
  - All Immunocompromised contacts
- Physician evaluation
- Repeat TST/IGRA
  - for persons testing negative initially
  - 8-10 weeks after date contact to infectious patient is broken





Treatment for Contacts

- Window Prophylaxis
  - Children < 5 yo
  - HIV co-infection
  - Immunocompromised contacts
- LTBI
  - INH =6-9 mos.
  - RIF =4 mos.
  - INH/Rifapentine = 12wks



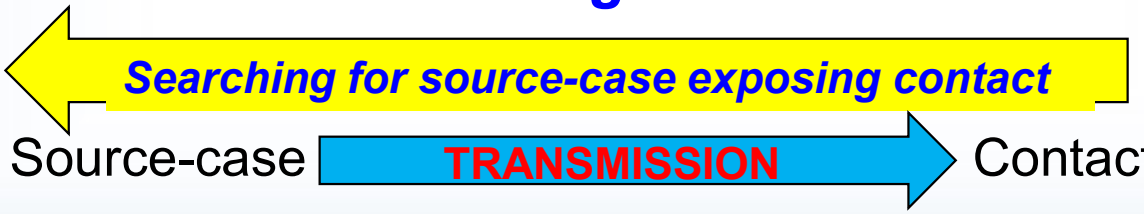
- RIPE if TB suspected

- DOT priorities:
  - Children < 5 yo
  - HIV co-infection
  - Immunocompromised contacts
  - Converters
  - Contact less likely to complete therapy

Source-Case Investigation

Contact Investigation

Source-case Investigation



Source-Case Investigation

- Source-case Investigation is conducted to find the source of recent transmission.
  - considered for children under 5 with TB disease
  - not recommended for LTBI patients
  - considered for to children < 2 yo
  - Possibly congregate settings/HCP with serial testing
  - May begin before confirmed diagnosis
- Only recommended when program is achieving all objectives, particularly completion of treatment of infected contacts.

Causes of an Ineffective Contact Investigation

- Problems with interviewing techniques
  - **Establish Rapport at every possible opportunity!!!**
  - Maintain confidentiality
- Failure to use priority approach to find contacts
- Failure to identify, screen and evaluate high priority contacts

Remember: Every TB case started out as a contact!!!

Causes of an Ineffective Contact Investigation

- Patient's lack of understanding
  - TB disease
  - Transmission
  - Risk factors
  - Importance of treatment completion
- Failure to communicate importance of re-testing to high-risk contacts
- Failure to re-test
- Failure to ensure completion of treatment for LTBI
- Increase in new TST/IGRA positive in lower priority contacts

Good rapport = ADHERENCE!!!

Staffing and Training for Contact Investigations

- It is the responsibility of the Health Department to conduct a Contact Investigation.
- Having policy and procedure improves efficiency and consistency.
- Periodic trainings*
- Who should be included?**
  - Disease Investigation Specialists
  - Nurses
  - Receptionists
  - Lab technicians
  - clerical personnel
  - Interpreters

Staffing and Training for Contact Investigations

Periodic trainings should include multiple interrelated tasks and skills:

- Good interviewing skills
  - Can be taught
  - Improve with practice
  - Should include trained & tutored
  - On-the-job supervision
- Patient education
- Site visits
- Patient reception
- Media relations and public education

Reference

Thank you to

Angela Blanchard, RN, BSN

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