

Tuberculosis in Corrections: Considerations for Contact Tracing

Maureen Murphy-Weiss, BSN, RN, CPM
March 26, 2019



Objectives

Participants will:

- Identify clinical findings associated with infectiousness and TB transmission
- Identify situations where contact investigation is appropriate
- Discuss roles and responsibilities in contact investigation in correctional settings
- Identify environmental conditions associated with TB transmission

City of Columbus • Columbus Public Health

Abbreviations Used Today

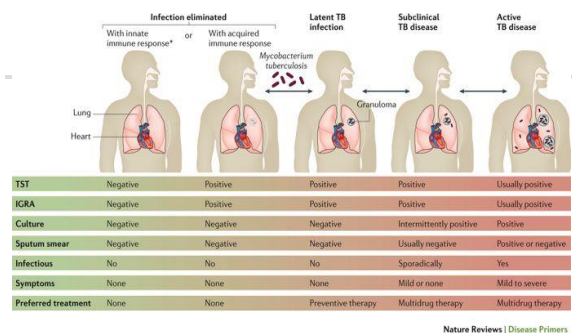
- Acid fast bacilli (AFB)
- Chest radiograph (CXR)
- Interferon gamma release assay (IGRA)
- Local Health Department (LHD)
- Ohio Administrative Code (OAC)
- Ohio Revised Code (ORC)
- Tuberculosis (TB)
- Tuberculin skin test (TST)

City of Columbus • Columbus Public Health

TB EXPOSURE, INFECTION, AND DISEASE PROGRESSION

A refresher for health care workers in corrections

City of Columbus • Columbus Public Health



City of Columbus • Columbus Public Health

Prison/Jail Classification

City of Columbus • Columbus Public Health

Ohio Department of Corrections and Rehabilitation (ODRC)

Sixth-largest prison system in America

- ~49,255 people in custody (2018)
- IGRA & symptom assessment at entry
- High-risk prisoners assessed at least annually for TB symptoms
- LTBI treatment encouraged

City of Columbus • Columbus Public Health

Full Service/Minimum Security Jails

OAC 5120:-1-8-09

(C) (h) Serious infection or communicable illness(s):
Receiving screen. Health trained personnel, in accordance with protocols established by the health authority, shall perform a written medical, dental and mental health receiving screening on each inmate upon arrival at the jail and prior to being placed in general population.

City of Columbus • Columbus Public Health

Full Service/Minimum Security Jails (2)

OAC 5120:-1-8-09

5 (D) (3) Laboratory and/or diagnostic tests to detect tuberculosis and other suspected communicable diseases as designated by the health authority.

City of Columbus • Columbus Public Health

Twelve Day Facilities

OAC 5120:1-10

Screening:

(C) (1) (h) Serious infection or communicable illness(s)

(C) (12) (N) (Essential) Infectious disease control program. The health authority shall have a written infectious disease control program that collaborates with the local health department and shall include, at minimum, an exposure control plan and standard isolation precautions for inmates and staff, which are updated annually. The health authority will develop written policy and procedures.

City of Columbus • Columbus Public Health

Twelve Hour Jails

6) A preliminary health screening shall be completed by health-trained personnel on all prisoners upon reception and prior to being placed in general population.

City of Columbus • Columbus Public Health

Consideration for Correctional Facility TB Exposure

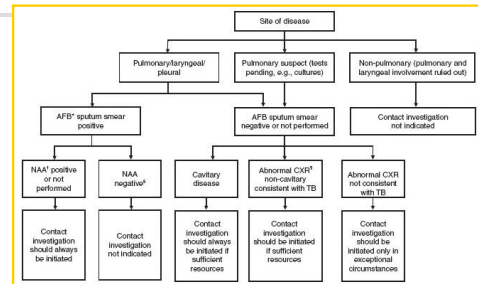
- Released, charges dropped
- Pre-trial release
- Community control/probation
- Day reporting
- Halfway house
- Work release
- Remain in jail
- State or federal prison

City of Columbus • Columbus Public Health

Focus on Prisoner/TB Patient

City of Columbus • Columbus Public Health

TB CI Decision Tree



¹Nucleic acid assay
²Approved indication for NAA
³Chest radiograph

City of Columbus • Columbus Public Health

Assign Primary Nurse/Provider

- Conducts focused health history
- Gathers all applicable lab results and radiograph results
- Arranges isolation (in-house or transfer)
- Provides initial teaching
- Develops plan of care, if applicable

City of Columbus • Columbus Public Health

Focused Health History (Index)

- Foundation of a contact investigation
- Information to be gathered includes
 - Disease characteristics
 - Onset time of illness
 - Historical contact with case/TB risk
 - Names of known contacts
 - Locations where transmission may have occurred (more on this later)

City of Columbus • Columbus Public Health

Focus on Contacts

City of Columbus • Columbus Public Health

Contact Investigation

Contact investigation (CI) is a systematic approach used to identify persons who may have had close contact to an individual sick with pulmonary TB in settings where transmission could occur.

Contacts can be:

- Close – people with prolonged face-to-face contact in an enclosed space
- Casual – people you see frequently, but not in settings where TB transmission is likely to occur
- Worried well – people who may not accept they are not at risk

City of Columbus • Columbus Public Health

Start of Infectious Period

- Cannot be determined with precision; estimation is necessary
- Start is 3 months before TB diagnosis (recommended)
- Earlier start should be used in certain circumstances (e.g., patient aware of illness for longer period of time)
- Establish classification system early

City of Columbus • Columbus Public Health

Assign Lead for Investigation

Investigation plan should include

- Information gathered in interviews and site visits
- Registry of contacts and their assigned priorities
- Written timeline for monitoring the investigation progress
 - Data recorded on standardized forms
 - Use LHD as your resource

City of Columbus • Columbus Public Health

Field Investigation (Dorm/Cell)

- Site visits are complementary to interviewing
- Should be made as close to the initial interview as possible, but no more than 3 days
- Plan your message *prior* to walking the facility...news travels fast and information is compared

City of Columbus • Columbus Public Health

Prisoner Living Quarters



Perception

Reality

Information to Collect During Initial Interview (contact)

- Previous *M. tuberculosis* infection or disease, and related treatment
- Contact's verbal report and documentation of previous TST or IGRA results
- Current symptoms of TB illness
- Interaction with prisoner thought to have TB- this can be tricky, be prepared

City of Columbus • Columbus Public Health

Assigning Contact Priorities

- Characteristics of the index patient
- Characteristics of contacts
- Age
- Immune status
- Other medical conditions
- Exposure duration/location

City of Columbus • Columbus Public Health

Contact Investigations – A Crucial Prevention Strategy

- On average, 10 contacts are identified for each person with infectious TB in the U.S.
- 20%–30% of all contacts have LTBI
- 1% of contacts have TB disease
- Of contacts who will ultimately have TB disease, approximately one-half develop disease in the first year after exposure

City of Columbus • Columbus Public Health

Assign Liaison to TB Control Unit

OAC 3701-3

- Report index case information
- Provide line list of contacts who have been released (include available contact information)
- County of residence for the released prisoner is responsible for contacting prisoner for testing

City of Columbus • Columbus Public Health

Ohio Law

- ORC 3701-15-02- The County TB Control Unit is required to investigate, locate and evaluate contacts of active TB disease. LTBI Treatment should be offered to all contacts.

City of Columbus • Columbus Public Health

Key Points

- *Notification* of potential TB exposure is required of facility- data must be made available to TB Control Unit under ORC 339.80
- TB Control Units do *NOT* have the authority to compel evaluation for TB exposure
- TB Control Units *must* provide or arrange testing and/or treatment to contacts who reside in their jurisdiction (if person agrees and/or requests testing or treatment for LTBI)
- Each TB Control Unit must make decision on how much time/effort to allocate for contacts that do not respond

City of Columbus • Columbus Public Health

Questions?

City of Columbus • Columbus Public Health