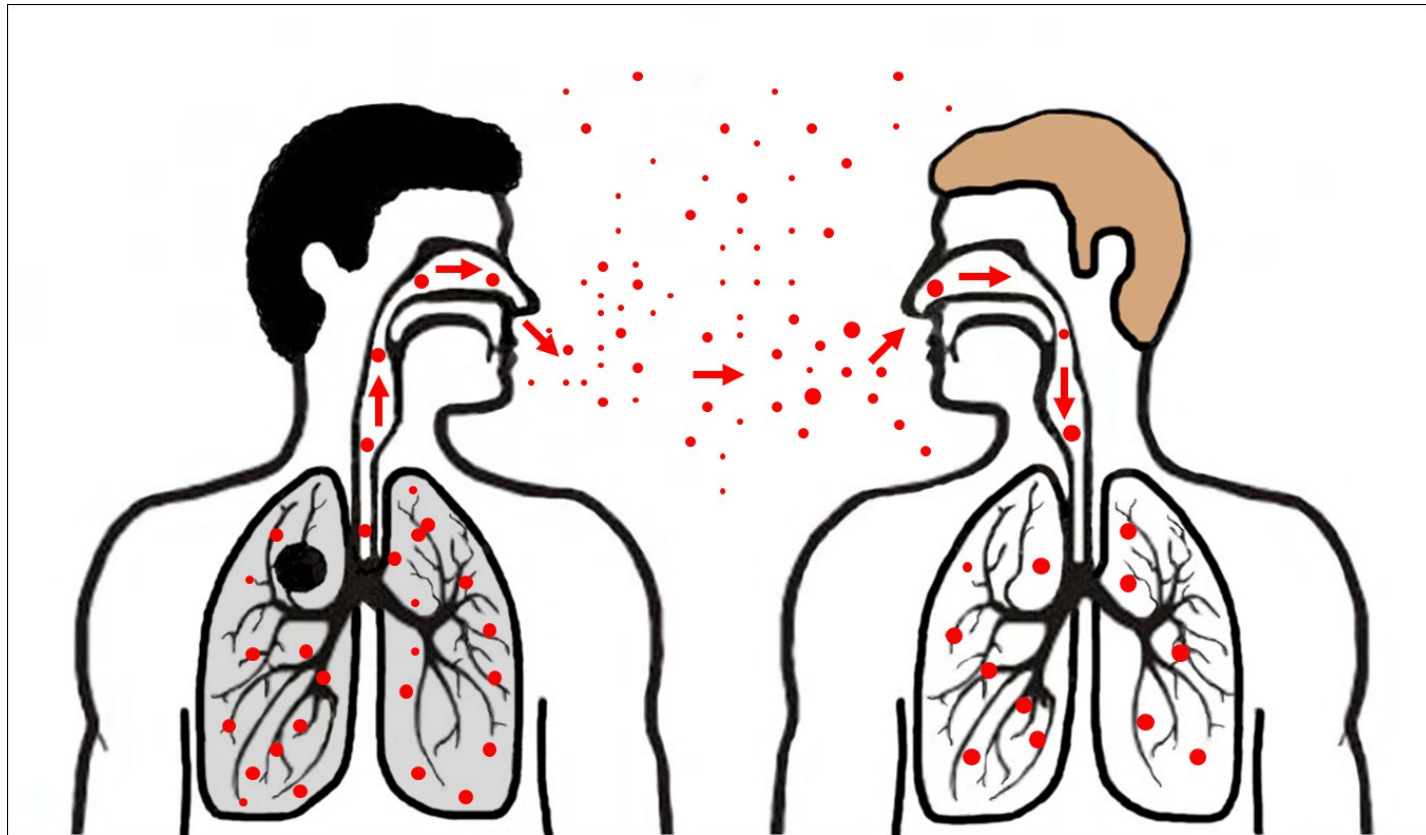
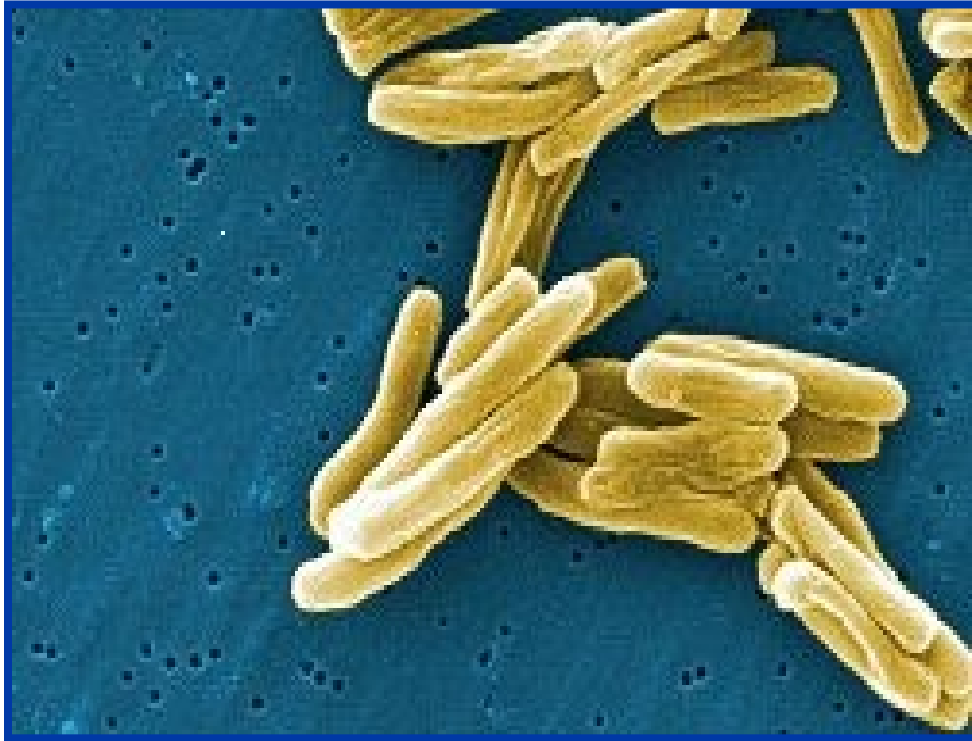


Tuberculosis (TB) in Correctional Settings: What Corrections Staff Need



Topics for Today

- Basic TB information
- TB testing
- TB treatment
- TB in correctional settings
- Collaboration between correctional facilities and TB control programs
 - Discharge/release planning
 - Contact investigations



Tuberculosis (TB)

- TB is a disease caused by a bacteria.
- TB is spread through the air from person to person when a person with TB disease of the lungs (or throat) coughs, sneezes, speaks, or sings.
- The bacteria usually attack the lungs, but can attack any part of the body such as the kidney, spine, and brain.

Latent TB Infection and TB Disease

- People who are infected with TB bacteria, but are not sick have latent TB infection.
- Some people with latent TB infection go on to develop TB disease.
- As a result, two TB-related conditions exist: latent TB infection and TB disease.

Latent TB Infection

People with latent TB infection:

- Do not have any symptoms
- Cannot spread TB germs to others
- May develop TB disease later
- Usually have a TB skin test or TB blood test result that is positive for TB infection
- Should consider treatment for latent TB infection to prevent TB disease

TB Disease

People with TB disease:

- Are sick and may have symptoms
- May be able to spread TB germs to other people
- Usually have a TB skin or TB blood test result that is positive for TB infection
- May have an abnormal chest x-ray
- Need treatment
- Should seek medical evaluation if they have symptoms of TB disease

Symptoms of TB Disease

Symptoms of TB disease may include:

- A bad cough that lasts 3 weeks or longer
- Pain in the chest
- Coughing up blood
- Tiredness
- Weight loss (unexplained)
- No appetite
- Chills, fever, and sweating at night



Persons at Risk for Exposure to TB

Includes:

- Contacts of persons known or suspected to have TB disease
- Persons from an area of the world where TB disease is very common (such as most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe, and Russia)
- Homeless persons, and
- Injection drug users

Persons at Risk for Exposure to TB in Congregate Settings

- Workers or residents in these facilities or institutions where there is a higher risk for exposure to TB bacteria:
 - Correctional and detention facilities
 - Homeless shelters
 - Hospitals
 - Nursing homes
 - Residential facilities for patients with HIV/AIDS

Progression from Latent TB Infection to TB Disease

Progression from latent TB infection to TB disease is more likely in persons who:

- Are living with HIV/AIDS
- Have a weakened immune system from other diseases (e.g., cancer, diabetes)
- Became infected with TB bacteria in the last 2 years
- Were not treated correctly for TB in the past
- Have low body weight (10% or below)



TB Testing in Correctional

Testing for TB

- TB testing helps find persons with latent TB infection who are at high risk for developing TB disease.
- Treating latent TB infection can prevent the progression to TB disease.
- Treating persons before they become ill with TB disease prevents the transmission of TB germs.
- The health department is available to assist by providing TB consultation to correctional medical staff.

There are 2 tests that can be used to detect TB infection: Types of TB Tests

- The Mantoux tuberculin skin test (TST)
- TB blood test (IGRA)



TST Reading



Blood Test

TB Test Results

- A positive TST or TB blood test result only shows that someone has been infected with TB bacteria. These tests cannot identify if a person has TB disease.
- Persons with positive test results for TB infection, or symptoms consistent with TB disease, should be evaluated for TB disease by a health care provider and get a chest x-ray.

- Initial TB testing should be performed by
 - Health-care professionals whenever possible
 - or**
 - Adequately trained correctional staff
- At intake, all incoming inmates should be screened for symptoms of TB disease. Inmates should be asked if they have
 - Symptoms of TB disease
 - A history of TB
 - Ever been treated for latent TB infection or TB disease

Think TB

Think TB when these symptoms are present:

- A bad cough that lasts 3 weeks or longer
- Pain in the chest
- Coughing up blood
- Tiredness
- Weight loss (unexplained)
- No appetite
- Chills, fever, and sweating at night

TB Testing of Inmates in Correctional Facilities and in Other Short-Term Detention Facilities

- Primary purpose of TB testing in correctional settings is to detect TB infection or TB disease
- All inmates should be screened upon intake for symptoms of TB disease
- Inmates with TB symptoms should be evaluated immediately for TB disease
- Inmates with TB risk factors but no TB symptoms should be tested within seven days of arrival (or per state and local guidelines)

TB Testing of Inmates in Holding or Booking Facilities

- Provide TB symptom screening for all persons at the time of entry
- Those with TB symptoms should be
 - Immediately isolated and transferred to a facility or hospital that has a medical isolation room
 - Evaluated for TB disease

Periodic TB Testing of Inmates

- Long-term inmates with an initial negative TST or TB blood test result should have follow-up testing at least annually.
- Inmates with a history of a positive TB test result should be examined for symptoms of TB disease at least annually.

TB Testing of Correctional Employees

- New employees should be tested for TB infection upon hire.
- All employees with an initial negative TST or TB blood test result should have follow-up testing at least annually.
- Employees with a history of a positive test result should be examined for symptoms of TB disease at least annually.

Other Persons Who Need to be Tested in Correctional Settings

- People who are neither inmates nor employees who visit high-risk facilities on a regular basis should be considered for TB testing (e.g., food handlers, service workers, volunteers, and those providing religious ministries)
- TB testing should follow the same procedures used for employees

Determining Frequency of TB Testing

- Frequency of testing is determined by an assessment of the risk for TB transmission within the facility.
- Risk assessments for facilities should be
 - Performed at least annually
 - Done in collaboration with the local or state TB control program (health department)

What to do if an Inmate has TB Symptoms?

Inmates with symptoms of TB disease should immediately be separated from other inmates and receive a complete medical evaluation including

- Test for TB infection (TB skin test or TB blood test)
- Chest X-ray
- Appropriate laboratory tests



TB Treatment

Importance of Treating Latent TB Infection and TB Disease

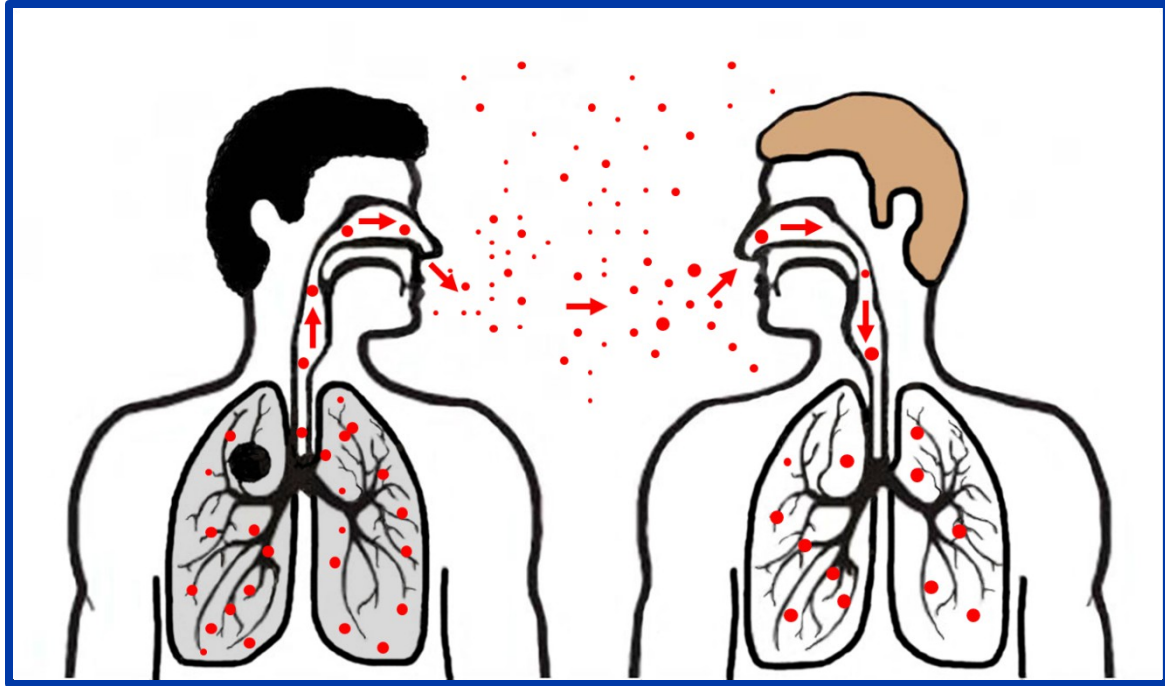
- Latent TB infection is treated to prevent progression to TB disease.
- TB disease is treated to cure the patient and to prevent the transmission of TB bacteria to others.

Treatment of LTBI and TB Disease

- Latent TB Infection
 - Depending on drugs used, treatment could last from 3 months (with 2 drugs) to 9 months (with a single drug).
- TB Disease
 - Minimum of 6 months of treatment with multiple drugs.

Adherence to Treatment

- Directly Observed Therapy (DOT) should be used throughout the entire course of therapy.
 - DOT is when a person is appointed to watch a patient take each dose of medications.
 - DOT should be coordinated with the local health department upon an inmate's release.
 - DOT should be used for all TB disease treatment and for the short course 12-dose latent TB infection treatment.



Environmental Control.²⁹

Correctional Facilities - The Environment

- Inmates are from populations at higher risk for TB than non-inmates.
- Correctional facilities have close living quarters, are typically overcrowded, and may have poor air circulation.
- Interruption of TB treatment caused by frequent movement, transfers, and inmates returning to the community can affect treatment success and transmission of TB germs.

Correctional Facilities- TB Transmission

- Transmission of TB germs can occur in correctional facilities
 - Inmates with undiagnosed TB disease place other inmates and correctional staff at risk for TB; when released, they can spread TB bacteria to members of the community.
 - Immediate isolation of patients diagnosed with TB disease can help interrupt the spread of TB germs.
- If inmates are co-infected with HIV and TB, they are at higher risk for developing TB disease.

TB in Correctional Population in the United States, 2019

- In 2019, approximately 3% of TB cases reported in the United States occurred among people who were incarcerated at the time of diagnosis

Working with the Health Department to Report a TB Case

- All states require reporting of suspected and confirmed patients with TB disease to their local or state health department.
- Non-medical correctional staff should report any persons with suspected TB disease to medical staff.
- Correctional facility medical staff should report any suspected or confirmed TB cases among inmates or employees to the appropriate health agency according to state and local laws and regulations.

TB Patient Isolation

- Since TB germs can be transmitted from person to person, it is important to practice appropriate isolation procedures to protect inmates and staff from exposure to TB bacteria.
- Environmental control measures should be implemented to reduce the amount of TB bacteria in the air by
 - Removing contaminated air using ventilation
 - Cleaning the air using HEPA filtration and/or Ultraviolet Germ Irradiation (UVGI)

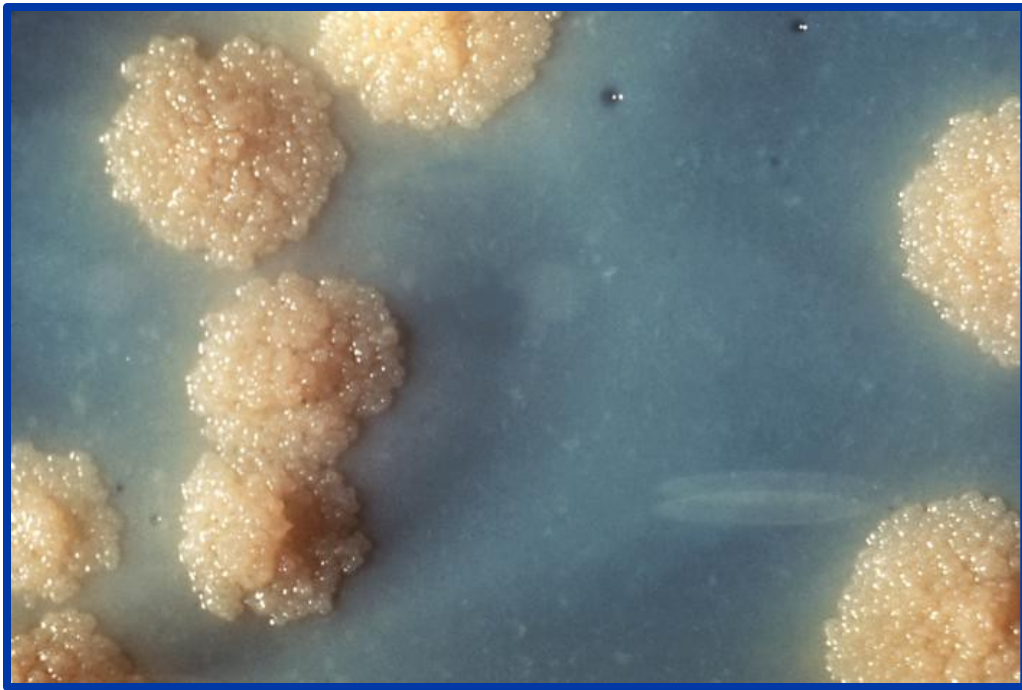
Isolation Rooms

- Inmates known or suspected to have TB disease should be placed in an airborne infection isolation (AII) room.
- Infectious inmates should remain in isolation until treatment or further evaluation shows that they are no longer infectious.
- Facilities without an on-site AII room should have a written plan for the transfer of patients with suspected or confirmed TB to a facility that can isolate, evaluate, and treat TB patients.

Implementing a Respiratory Protection Program

- All facilities (i.e., employers) should develop, implement, and maintain a respiratory protection program for health-care workers and other staff (including officers and guards).
- Respiratory protection is needed for inmates and staff who enter All rooms, transport infectious persons





Collaboration

Correctional facilities and public health programs should work together to:

- Ensure that TB-control efforts are undertaken in the most cost-effective manner.
- Maximize the effectiveness of TB treatment begun in a correctional facility by linking released detainees to the public healthcare system.
- Facilities should ensure transition plans are in place for all inmates with active TB disease prior to release.

Points of Contact for TB-Associated Efforts

- Correctional facilities should designate points of contact (POC) with the health department
 - State TB control offices have a designated correctional liaison. A list of liaisons can be found at the National TB Controllers Association Corrections website:
<http://www.tbcontrollers.org/ntca-2/committ>
- Correctional staff POCs should be either responsible for, or familiar with, TB control
- POCs should hold regular meetings with

Public Health & Correctional Point of Contact (POC) Collaboration

Public health and correctional facility POCs should collaborate on:

- Planning for inmate release (if receiving treatment for TB)
- Contact investigations
- Implementation of TB control in correctional facility
- Implementation of facility TB risk assessment and infection control measures

Collaboration: Planning for Release

Collaboration and communication can reduce the disruption of TB treatment due to:

- Short length of stay in a facility
- Unanticipated release or transfer
- Limited channels of communication
- Limited resources - including staff, equipment, and medications
- Loss to follow up without treatment completion

TB Contact Investigations (1)

- The overall goal is to interrupt the spread of TB bacteria and prevent future cases of TB disease
- Ongoing transmission is prevented by
 - Identifying, isolating, and treating persons with TB disease
 - Identifying infected contacts of the TB patient and providing them with a complete course of treatment for latent TB infection

TB Contact Investigations (2)

- A multidisciplinary team should be formed to address the complicated nature of a contact investigation in correctional facilities including:
 - Correctional healthcare workers
 - Public health staff
 - Administrative staff to track inmate movements

TB Contact Investigations (3)

- Two correctional data systems are critical in a contact investigation
 1. Inmate medical record system containing TB testing results and other relevant information
 2. An inmate tracking system
- Health departments can assist correctional facilities in planning, implementing, and evaluating a contact investigation.

Collaboration Among TB
Control Programs and
Correctional Facilities is Key
to TB Reduction.

Collaboration Opportunities

- Testing and treating inmates for latent TB infection and TB disease
- Follow-up of inmates with TB symptoms or abnormal chest X-rays
- Medical consultation regarding persons with confirmed and suspected TB disease
- Contact investigations for reported TB cases
- Evaluation of screening effectiveness¹⁶

Correctional Facilities Can Assist With:

- Reporting TB disease promptly according to state and local regulations
- Continuity of treatment and release planning for persons with TB disease and latent TB infection

Community-Based Case Management After Release (1)

- Case management strategies (for example directly observed therapy) begun in the correctional facility should be continued after release for former inmates with
 - Confirmed or suspected TB disease
 - Latent TB infection who are at high risk for progression to TB disease

Community-Based Case Management After Release (2)

- Providing incentives and enablers (for example meal coupons, bus passes, and gift cards) combined with education and counseling can help improve short-and long-term adherence to TB treatment
- Curing TB is essential to reducing the spread of TB in the community



Release Planning for U.S. Immigration and Customs Enforcement Detainees

- Persons with TB disease (1) detained by U.S. Immigration and Customs Enforcement (ICE) are a potential public health threat because they are
 - Typically highly mobile
 - Likely to be transported from the U.S.
 - May re-enter the U.S. before completion of TB therapy
 - At high risk for not completing treatment upon release without close coordination of release planning for transnational continuity of care

Release Planning for U.S. Immigration and Customs Enforcement Detainees

- Ensuring treatment of detainees is important to the national strategy to eliminate TB in the United States
- Detention facility staff should notify their local ICE Field Medical Coordinator of any ICE detainee with suspected or confirmed TB disease
- There are organizations that can assist in continuity of care for detainees who may be removed to their country of nationality (ANY country)



Resources

CDC Resources

- **Questions and Answers about Tuberculosis**
<http://www.cdc.gov/tb/publications/faqs/default.htm>
- **Tuberculosis Fact Series**
<http://www.cdc.gov/tb/publications/factsheets/general.htm>
- **Correctional Facilities Website**
<http://www.cdc.gov/tb/topic/populations/correctional/default.htm>
- **Tuberculosis Case Management for Undocumented and Deportable Inmates/Prisoners/Detainees in Federal Custody**
http://tbcontrollers.org/docs/corrections/Federal_TBCaseMgmt

Disclaimer

This presentation is designed to provide an overview of CDC recommendations for TB prevention and control in correctional facilities. TB programs may adapt this presentation to reflect their own regulations and policies.

This slide set was developed using the CDC Guidelines *Prevention and Control of Tuberculosis in Correction and Detention Facilities: Recommendations from CDC, 2006*. For more detailed information, please visit this link: