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Updated Guidelines for Tuberculosis Respiratory Isolation and Restrictions for Community Settings

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June 27, 2024

Disclosures

- *Presenter has no financial interest to disclose.*

- *This continuing education activity is managed by The St. Louis STI/HIV Prevention Training Center and accredited by Missouri State Medical Association (MSMA) in cooperation with the Chicago Department of Public Health.*

- Content adapted from Dr. Maunank Shah's presentation at the 2024 National Tuberculosis Conference, Baltimore, MD

  "Draft NTCA Guidelines for Respiratory Isolation and Restrictions to Reduce Transmission of Pulmonary Tuberculosis in Community Settings"

Isolation as a Public Health Action

- Separation of an ill person with a communicable disease from those who are healthy in order to stop the spread of that disease
  - Benefits the public
  - Costs incurred by the ill person

- States (and some local municipalities) establish their own laws about isolation and quarantine
  - No standard practice

Rationale for Isolation / Rationale for Change

- TB is an airborne infection that causes serious illness; sometimes fatal
- CDC guidelines exist for control of TB in healthcare settings but not for outside of healthcare
- Concern that current practice that relies on bacteriologic tests is not based on available scientific evidence
  - Smear microscopy
  - Culture
- Increased awareness of negative impact of isolation on people with TB

Methodology for Guideline Development

- National TB Coalition of America (NTCA) work groups
- Pre-development phase - Spring 2023
  - Input of key stakeholders
- Guideline development - Summer to Winter 2023
  - Determine outcomes of interest
  - Evidence review and drafting of guidelines
- Post-development - Spring 2024
  - External review and updates
  - Publication and dissemination

Evidence Review

- Prior to starting anti-TB treatment, are bacteriologic tests associated with infectiousness?
  - ✓*Moderate certainty of evidence*
- Prior to starting anti-TB treatment, are cough and cavitation on chest imaging associated with TB transmission?
  - ✓*Low to very low certainty of evidence*
- Does effective anti-TB treatment reduce transmissibility?
  - ✓*Moderate certainty of evidence*
- How much treatment is needed to reduce TB transmission?
  - ✓*Treatment effect appears to be rapid and steady*

The Updated Guidelines

	Pre-treatment TB bacterial burden	Individual Infectiousness	Is respiratory isolation indicated?	Recommended level of respiratory isolation
Pre-treatment	High	Highest	Yes	Extensive
	Low	Moderate	Yes	Extensive/Moderate
Treatment ≤5 days	High	Moderate	Yes	Moderate
	Low	Moderate/Low	Yes	Moderate
Treatment >5 days	High	Low	Not indicated in most situations	None
	Low	Lowest		None

Open Questions

- What does “effective treatment” mean?
  - Do you need susceptibility results in order to say a patient is on effective treatment?
  - Can we apply the shortened respiratory isolation to people with drug-resistant TB?
- Should we have a more conservative approach for certain community settings?
  - Congregate settings like homeless shelters?
  - Daycares?
  - Group homes?
- Should we continue to collect sputa from people on anti-TB treatment if positive bacteriologic results after the start of treatment are not likely associated with infectiousness?

Conclusions

- Review of available evidence indicates that anti-TB treatment is effective in preventing TB transmission and that the effect is rapid (i.e., within days)

- Respiratory isolation and restrictions should be tailored to specific patient and setting characteristics

- CDPH endorses the updated guidelines but implementation will take time

Reference & Resources

Published Guidelines

National Tuberculosis Coalition of America (NTCA) Guidelines for Respiratory Isolation and Restrictions to Reduce Transmission of Pulmonary Tuberculosis in Community Settings

- *Clinical Infectious Disease* 18 April 2024 at https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciae199/7649400?login=false

CDC Invited Commentary

Duration of Effective Tuberculosis Treatment, Not Acid-Fast Bacilli (AFB) Smear Status, as the Determinant for De-isolation in Community Settings

- *Clinical Infectious Disease* 18 April 2024

Infectious Disease Society of America (IDSA) endorsement 6/18/24

- https://www.idsociety.org/practice-guideline/cardiovascular-infection/ntca-tb-guideline/#null

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CDPH Tuberculosis webpages

https://www.chicago.gov/city/en/depts/cdph/provdrs/infectious_disease/svcs/tb_prog.html

CDPH Tuberculosis HAN page

https://www.chicagohan.org/diseases-and-conditions/tuberculosis

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