Environmental Risk Assessment Tool for Correctional Settings

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Background and Purpose

• Response to previous CPC meeting request

• Purpose

• Gathering TB environmental risk data

• Apply environmental data to support CI (awareness)

• Partnering tool to other CI resources
Environmental Risk Assessment Part 1

• Overview of index
  • Markers for infectiousness (assessing risk)
  • Period of infectiousness
Environmental Risk Assessment Part 2

• Environmental details of exposure points
  • Dimensions
  • Environmental controls present
  • Environmental markers
  • Other considerations
Case Study: Background

1. *Facility A* inmate with TB symptoms* - presents to nurse
2. Report test to LHD
3. Inmate placed in airborne infection isolation room (AIIR)
4. Recommend contact investigation (CI)
5. *Facility A* - activates CI team*
Case Study: Case Interview & Selecting Exposure Sites

1. Interview case
2. Determine exposure sites based on interview
   a. Cases’ cells
   b. Recreation area
   c. Clinic waiting cell
3. CI team evaluates sites
Case Study: Case’s Cell & Cell Block

Key Findings:

- Size of a small bedroom
- No fans or windows to outside
- Recirculating ventilation w/ lent sheet air filters
- 3-4 ACH
- Neutral pressure to hallway*
- Airflow is toward the end of the block hallway (exhaust vent)*
Case Study: Recreation Area

Key Findings:
• Size of a house (large classroom)
• open ceiling
• industrial fan to increase airflow
• Air is supplied from outside*
• 8-9 ACH (with fan on)
• Air pressure is neutral to inside hall
Case Study: Clinic Waiting Cell

• Key findings
  • Size of small bedroom
  • Ventilation - recirculating system with pleated filters
  • Supply and exhaust vent in waiting cell
  • Air pressure - neutral to adjacent hallway
  • 7-8 ACH
Case Study: Ideas for Application of Environmental Findings

• Cases’ cell wing has higher priority due to poorer ventilation markers and limited air filtration.

• Ventilation and air filtration is average for the clinic, but investigation should consider patients at risk of progressing to TB disease, if infected.

• Given the mixing of outside air, openness, and ACH, the recreation area appears lower priority. This does not necessarily exclude the contacts from the area.


Your Input?

1. How would you adapt this tool, or make it more applicable to the jurisdiction you serve?

2. What areas of the assessment do you feel need to be removed or added onto?

3. Do you see the facilities in your jurisdiction using this risk assessment?