HEALTHY CHICAGO

CHICAGO DEPARTMENT OF PUBLIC HEALTH

Practical Aspects of TB Patient Management: From Hospital to the Community

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Disclosure

- Relevant financial relationships: None
- Off-label or investigational uses: None

Objectives

- Review key points of a TB contact investigation in a health care facility
- Describe dilemmas in discharge planning for a TB patient
- Discuss outpatient care services for TB patients in Chicago

Q.1 A 60 y.o female patient presented to the ED with intracranial hemorrhage. She is intubated and admitted to MICU. She has a h/o HTN and lupus. Patient is unable to extubate and has a bronch during second week. BAL culture grows Acinetobacter (colonized?). The AFB smear is negative. Patient slowly improves and is d/c'd to a nursing home. One week after discharge the lab calls to report that an AFB was isolated and identified as *M. tuberculosis*. What do you do?

1. Notify the MICU director so that they can start testing staff for TB
2. Notify occupational health so that they can start an investigation
3. Wait for confirmation of the result from the IDPH Lab
4. Take a deep breath and start gathering information about the patient's clinical status, procedures performed, airborne precautions taken, patient's movements within the facility, and potentially exposed staff and patients

The “Unexpected Lab”

- Determine the infectious period of the index case
- Assemble list of all possibly exposed people, then stratify by risk
- Highest risk include HCWs who performed bronchoscopy, intubation, suctioning, autopsy
- Screen most intensely exposed HCWs and patients ASAP and again 8-10 wks after end of exposure
- Expand screening if any test conversions
- CDPH can help track down exposed patients

How contagious is TB? It depends….

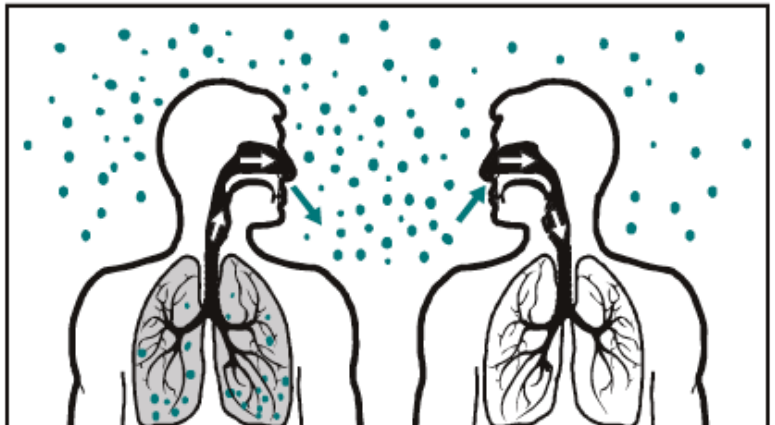
- **Source Case**
  - Severity of disease and symptoms
  - Treatment

- **Individuals Exposed**
  - Immune status
  - Duration of exposure

- **Environment**
  - Size of space
  - Ventilation
  - Filtration system

Patient Characteristics Associated with Increased Risk of TB Transmission

- Pulmonary, laryngeal, or pleural TB
- Acid-fast bacilli (AFB) positive sputum smear
- Cavitation on chest radiograph
- Adolescent or adult patient
- No or ineffective treatment of TB disease



Start of Infectious Period

- If AFB sputum smear positive: begin 3 months before the sputum collection date or the symptom onset date (whichever is earlier)
- If AFB sputum smear negative: begin 1 month before symptom onset date

End of the Infectious Period

- Effective treatment for ≥2 weeks, AND
- Diminished symptoms, AND
- Bacteriologic response

- Within a facility—use the date the patient was placed under airborne precautions

Q.2 A 28 y.o. male presents to the ED with cough, fever, and weight loss and is admitted for possible TB. His CXR shows a cavity and a sputum smear has 3+ AFB. He is started on standard 4-drug TB therapy. Within 3-4 days he is feeling much better and no longer needs inpatient care. The discharge planner asks if he can be discharged. What do you say?

1. His household members have already been exposed, so yes, it's okay to discharge him home.
2. Order another sputum today and if the smear is less than 3+ it's okay to send him home.
3. Keep the patient until three consecutive sputum smears are negative.
4. Call CDPH to see if they can facilitate transfer of the patient to Stroger Cook County Hospital

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3. Keep the patient until three consecutive sputum smears are negative. **BEST ANSWER**
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The “Discharge Dilemma”

- Patient no longer needs inpatient care but is still potentially infectious
- Ideally keep patient until 3 consecutive negative sputum smears
- Other considerations
  - Private residence vs. congregate setting
  - Infant or immunocompromised person at home
  - Likelihood of patient having drug resistance

Q. 3 A patient at your hospital has been diagnosed with presumptive TB. He has been on standard 4-drug TB therapy for two weeks and is feeling much better and wants to leave the hospital. His three latest sputum smears are 1+, none, and 1+. He has a h/o of alcohol abuse and admits to occasional cocaine use. He just got kicked out of his sister's apartment and says he will find a place to stay once he gets out. Your plan is to keep the patient until his smears are negative. Can you hold the patient against his will?

1. Yes, because he is still potentially infectious
2. Yes, because he will be difficult to locate after discharge
3. No, because it would be an infringement of his personal liberties
4. No, because your risk management department says that is not the hospital responsibility

Legal Issues of TB Isolation

- City may issue an “Emergency Petition for Isolation” if:
  - Patient has a contagious condition and is an immediate and continuing danger, AND
  - No less restrictive alternative to isolation exists
- Verbal order holds for 48 hrs. Within 48 hrs City needs to file the Emergency Petition and have a court hearing
- Hospital shall use its own resources to hold the patient

Q.4 A 54 y.o. female patient originally from the Philippines has been admitted for presumptive pulmonary TB based on symptoms, positive Quantiferon test, and an abnormal CXR. Her sputum smear is negative for AFB and the culture is pending. She has been on standard 4-drug TB therapy for three days, is tolerating the meds well, and is ready for discharge. What do you arrange for her follow-up care?

1. If she has insurance, give her copies of the prescriptions and schedule an appointment with pulmonology or ID in two months.
2. Give her the phone number and address for the nearest CDPH TB clinic and tell her to call upon getting home.
3. Give her a two-day supply of medicine and schedule an appointment with her primary care physician.
4. All of the above—to make sure she is covered.
5. None of the above

TB Clinical Services in Chicago

- In 2012 CDPH primary care clinics transitioned to Federally Qualified Health Centers (FQHCs)
  - CDPH TB clinics unable to continue

- CDPH and Cook County entered into an intergovermental agreement for TB clinical services for Chicago residents:
  1. Active and suspect cases
  2. Contacts of active cases
  3. High-risk populations

Other CDPH TB Control Services

- Nurse case management—all cases
- Directly observed therapy (DOT)—selected cases
- Contact investigations
- Technical assistance/education

CDPH TB Control Program—Key Points of Contact

- To report cases
  - Juan Elias (Senior Comm Dis Investigator): (312) 746-6013
  - Nereida Bruno-Otero (Senior Nurse Case Manager): (312) 746-6036
- Medical consultation
  - Dr. Kathy Ritger: (312) 746-5992
- Data requests
  - Margarita Reina: (312) 743-0697
- General program information
  - Nancy Rivera: (312) 746-5987

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