



Prioritizing Contacts

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Chelsea Hargrave, BS, CHES has the following disclosures to make:

- No conflict of interests
- No relevant financial relationships with any commercial companies pertaining to this educational activity





Contact Investigation Case Study

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Heartland National TB Center

Objectives

- Discuss factors associated with prioritizing contacts identified in an investigation.



Background

- A local hospital notified the health department of a 42 y/o female patient who was 4+ smear positive on a sputum sample.
- Household contacts included 40 y/o husband, 9 y/o female, 6 y/o female
 - All household contacts were IGRA positive during first round testing
 - Family was asymptomatic with clear chest x-rays.



To Expand or Not to Expand?

- 2 months prior went on a weekend/overnight church retreat
- 3 weeks prior hosted a dinner party in home with 2 other families, 4 other adults, and 1 infant and 1 toddler (4 month and 15months)



Patient Characteristics

| Diagnostic | Result |
|-------------------|---|
| Symptoms? | Cough (for months), hemoptysis, loss of appetite, weight loss, night sweats |
| TST? | Positive |
| NAAT? | Positive for MTB complex, RIF resistance negative |
| Smears? | Sputum 4+ smear positive |
| CXR? | Abnormal with cavitation |
| Culture? | Unknown |
| Country of Origin | Philippines |



Contact Characteristics

- Church retreat
 - Shared cabin with 20 other women for 2 nights
 - All participants rode in large passenger vans together
 - Small, open, poorly ventilated room
 - All activities were done outside
- Dinner party
 - Held in index case home
 - Approximately 3 hours
 - Index case states she held and played with both babies



Limitations

- Medical risk factors of contacts not determined
- Contacts location/reaching out to contacts
- Stigma



Review

- Significant exposure factors
 - Infectiousness
 - Physical proximity
 - Duration of exposure
 - Ventilation systems
 - Immunosuppression, HIV, DM
 - Age



Outcomes

- Index patient susceptibilities came back INH Resistant
- Family switched to 4 mo RIF LTBI tx
- Retreat
 - All contacts from retreat were asymptomatic, had negative CXR's, and tested negative at 8 weeks after exposure (initial testing occurred after the 8 week mark)
- Dinner party
 - The 4 adults and 6 mo old were asymptomatic, had negative CXR's, and negative IGRA's at 8 weeks
 - 8 mo old had an ongoing cough, negative PPD (recent MMR vaccine, and abnormal CXR)



Outcomes

- At 3 weeks after exposure 15 m/o had (PCP):
 - an ongoing cough
 - 0 PPD (recent MMR vaccine)
 - Normal CXR
- At 4 weeks health department intervention
 - Requested lateral CXR
 - CXR: L hilar adenopathy & air bronchogram on R
 - Quantiferon: Positive
- Treated as active TB with RZE for 6 mo
- CXR was negative after 6 months of treatment



Review

- Develop contact list, choose testing method, and determine testing dates
- Expanding the contact investigation
- Analyze and summarize results
- Follow through treatment





Thank you!!!

