CROSS-CONTAMINATION – BEYOND LABORATORY TESTING

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Potential Cross-Contamination

Identified

How was this identified?
DPH notified by Provider

• 7H11 Slant received at MA SPHL on 6/5/18
  • Identified at M. tuberculosis complex by MALDI on 6/6/18
• The Provider identified this as potential cross-contamination event in their laboratory.
  • The laboratory supervisor immediately notified the MA SPHL TB Lab.
  • Patient referred to TB Clinic for follow-up
Patient 1

- Sputum sample collected on 3/16/18
  - Processed by provider
- High suspect for TB, admitted to State TB Hospital
- First sample submitted from State TB Hospital was smear positive, NAAT positive
- Provider culture growth:
  - 7H11 slant positive for growth, sent to MA SPHL on 3/26/18
  - Identified as M. tuberculosis complex by MALDI
- Culture confirmed TB case many times over
Patient 2

- Sputum sample collected on 3/16/18
  - Processed by provider
- Provider culture growth:
  - 7H11 slant positive for growth, sent to MA SPHL on 6/5/18
  - Identified as M. tuberculosis complex by MALDI
- Provider believes this positive culture is due to cross-contamination
  - Processed with the sample from Patient 1
- Follow-up samples collected in June and July
  - All smear negative, culture negative
MA SPHL TB Lab Response

Steps taken to determine if this was a cross-contamination event and prevent it from happening again.
Determining Cross-Contamination

- Potential cross contamination sample sent to Michigan for genotyping
  - Genotype match shown through TB GIMS

- MA Cluster with 3 patients
  - Patient 1 – Known TB
  - Patient 2 – Possible Cross-Contamination
  - Patient 3 – Household contact to Patient 1

- From the lab perspective, Patient 2 appears to be from a Cross-Contamination event
Provider Education

• Laboratory visit to observe processing procedures and suggest process improvements
  • Done at the Provider’s request

• MA SPHL TB Lab supervisor went to the provider and observed their processes/procedures
  • Use commercial kit for processing specimens
  • Overall, good procedures/practices in place
  • Small changes suggested
Clinical Response

What happened to the patient?
Patient 2

- High suspect laboratory cross contamination
  - Patient sent to TB Clinic
  - Follow up samples in June and July smear negative
    - One sample grew M. gordonae in MGIT, no growth on solid media
    - Five other samples were culture negative
- Patient received RIPE treatment for 6 months
  - Treated as a TB patient, not cross-contamination event