Thank You!

Reflections from the 10th National Conference on Laboratory Aspects of Tuberculosis

Paula M. Vagnone
Chair, Program Planning Committee
Dr. Rodwell

- Proposed a “Different Vision for the Future”
- Starts with the sputum cup
- We will get to MIC prediction and effective drug suggestions for patients
- Forecasted quantitative resistance and gave us a quick tutorial on PK/PD and AUIC
- Dared us to trust him
Insight to Different Lab Approaches

• Low-tech approaches to Quality Improvement using Lean concepts
• Unique algorithms for use of MALDI, PCR, and line probe
Susceptibility Testing

• Tricks for improved PZA testing based on manipulation of inoculum
  – Promise for a paper and SOPs to use
• Reinforcement that MIC testing is an important option
• CDC is continually improving its MDDR platform and new eLIMS reporting to come
• National DST reference centers are a good working model
CDC – Aggregate PHL TB data

- PHLs are doing the majority of DST
- NAAT testing volumes continues to increase
- PHLs play an important role in consulting with partners
- Reminder – look at reports from CDC compare and measure your lab
- Thank you Frances!
4 Highlighted Posters

- Equivocal smears
- HAIN line probe for molecular resistance markers used in combination with TREK MIC AST
- Melt curve analysis for MTBC
- Success with shorter incubation for agar proportion method DST
Round table session

- I found a reason to get out of bed early
- Staff “huddles” can be productive
- How to deal with multiple specimens on one patient
- How NAAT is used
- Tips for validating – seeded specimens
- Choice for media that is set up
- Thank you to Robin and Denise
WGS – NGS

• Progress at CDC – future timeline thru 2020
  – “Everything is Changing but Nothing is Changing”

• Kelly provided great questions to work thru for WGS for ID or DST – Not many answers… 😊
  – Important to learn how to understand the WGS/NGS data/information to continue to be the go to TB Lab SMEs
WGS – NGS

• Great progress
  – Jill - NY State – leading the way
    • Learned “they can’t live without WGS in NY”
    • Data to be published in JCM - soon
  – Kevin - TB WGS Pilot labs
    • Most excitement since HPLC
    • Challenged us with: “you don’t have to be Italian to cook like one”
  – TB ID using non-sputum specimens Xpert MTB/RIF
Latest Research

• Description of Fitness and that “Epistasis matters” - *rpoA* and *rpoC* compensate for *rpoB* resistance genes

• Educated us in a new paradigm (and the old) for the pathogenesis of pulmonary TB
  – Reminded us that “rabbits are not people and *M. bovis* is not TB”

• CDC using Functional Genetics to identify new resistance genes for INH and PZA
Case studies - Contamination

• Great trouble-shooting tips for investigating contamination
  – Opportunity for quality improvement
• Difficulties of drug susceptibility testing
  – Visually check growth in MGIT DST tubes
• The basics of digestion/decontamination are still really important
Great Collaboration with NTCA

• Joint poster session
• Dr. Kelly Holland
  – Waiting is Hard
• Looking forward to tomorrow’s session
  – Sub-culturing: Working with Lab Partners
  – 8:30 – 10:15
  – Atrium B
2 Very Deserving Awardees

• Jessica Gentry
• Ken Jost
Personally…

- Reconnected with old friends
- Network and meet new colleagues
- Learned valuable lessons to bring home
  - Quality improvement
  - Workflow efficiencies
  - New technology to mull over
Personally...

• Reinforced that what we do every day, no matter which algorithm or technology that we use, is incredibly important
Finally

• Thank you to the planning committee
• Thank you to APHL
• Please fill out evaluations
• Happy travels…..