Implementation of QuantiFERON-TB Gold in Public Health Laboratories

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2006 APHL QuantiFERON-TB Gold (QFT-G) Utilization Survey

• Purpose of the Survey
  • Identify public health laboratories (PHLs) that are currently utilizing the QFT-G assay.
Methods

- \( n = 95 \) public health laboratories
  - 51 state (including PR) and 44 local PHLs

- Response Rate = 70.5% (67/95)
  - State PHL = 88.2% (45/51)
  - Local PHL = 50.0% (22/44)
Survey Questions

- PHLs using the QFT-G test
- Portion of QFT-G test performed
- Various uses of the QFT-G in the lab
- Plans to implement QFT-G in near future
- Obstacles for the laboratory in implementing the QFT-G
Survey Results

• About 15% of respondents indicated current usage of QFT-G assay

• Majority (70%) of labs performing QFT-G are local PHLs

• All 10 PHLs utilizing QFT-G are performing both stimulation and Interferon ELISA portions of assay
Survey Results (cont.)

- 40% of PHLs indicated that the QFT-G was offered at private clinical labs

- Vast majority (80%) indicated that QFT-G is most frequently utilized for persons at high risk for LTBI
  - Immigrants, corrections, employee health
What are the Potential Obstacles?

- Stimulation portion within 12 hours of specimen collection
- Lack of necessary equipment
- Lack of staff to support test
- Cost of test
- Validation difficulties
- Lack of interest in PH community
- Lack of interest in private sector
- Reimbursement issues
- No barriers
- Other
## Obstacles to Implementation

### Barriers to PHLs currently performing QFT-G

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Conclusions from Survey

• Most popular usage of the QFT-G in PHLs is for specialized populations, not general screening

• Main obstacles for PHLs that are conducting the QFT-G are cost and reimbursement issues

• Main obstacle for PHLs that are not currently conducting the QFT-G is being able to receive the specimen in the laboratory within 12 hours after blood collection
New Developments

• QuantiFERON®-TB Gold In-Tube FDA approved in October 2007

• Antigens coated on blood collection tubes

• Allows for more logistical flexibility than 2nd Generation QFT-G
QuantiFERON®-TB Gold In-Tube

- Incubation within 16 hours of blood draw
- Stable for up to three days prior to centrifugation at 2°C and 27°C
- Provides public health laboratories more time to receive the specimen
Impact on Public Health Laboratories

- Interest from TB programs and laboratories continue to be high

- Assumption that more public health laboratories would begin to look at implementing QFT-G testing

- Questions posed on state and local public health laboratory list serves
State Public Health Laboratories

- 17 replies from state PHL directors regarding usage of new QFT-G IT assay
- 6 are either utilizing, evaluating the use or performing a special study of the assay
  - 3 are using the test for screening
- About 35% of state PHLs now using the QFT-G In-Tube test
Local Public Health Laboratories

- 14 replies from local PHL directors regarding usage of new QFT-G IT assay

- Not surprisingly, more local PHLs are using the assay

- 6 are either utilizing, evaluating the use or performing a special study of the assay
  - 3 are using the test for screening

- About 43% of local PHLs now using the QFT-G In-Tube test
Breaking Down the Responses

1. **Seen as a public health need**
2. **Still mainly utilized for screening of special populations for LTBI**
   - Corrections, student health, foreign born
3. **Incubation after sending tubes**
4. **Funding**
   - Fee for service, general funds, CDC, Medicaid
5. **TST**
   - QFT-G not seen as a direct replacement for TST
Overall Conclusions

• Higher uptake of 3\textsuperscript{rd} Gen In-Tube vs. 2\textsuperscript{nd} Gen

• Use of QFT-G remains the same
  • Mainly specialized populations, not general screening

• Despite the overwhelming public health need, implementation still relatively low
Questions to Consider

• Should public health laboratories be performing QFT-G testing?
• Can this test replace the TST?
• How will PHLs fund IGRA testing?
• Need for comprehensive TB survey?
Acknowledgements

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