

Facilitator Guide (FG1)

***MONITORING QUALITY INDICATORS***

SUMMARYOF MODULE AT A GLANCE

\* Refers to either Xpert MTB/RIF and/or Xpert MTB/RIF Ultra

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| **Purpose of module:** | To provide participants with an overview of quality (performance) indicator monitoring at the testing site, data analysis and performing root cause analysis for unexpected results or if targets are not met | |
| **Total time of module** | 1 hours 45 minutes | |
| **CONTENT OUTLINE** | | |
| **Power point: TB Diagnostics Global Policies and Strategies** | Aim: to provide an overview of quality (performance) indicator monitoring at the testing site, what quality indicators should be collected at the testing site, as well as how to analyze quality indicator data and perform root cause analysis  Learning objectives:   * Understand the importance of quality indicator monitoring * List quality indicators that are needed to monitor the quality of TB laboratory tests * List the quality indicators that should be collected for Xpert MTB/RIF (Ultra)\* * Describe the process of analysing and reporting quality indicators | 1 hour |
| **Discussion Questions** | 1. Why are collecting quality indicators important? 2. What general quality indicators should be collected to evaluate the functioning of the TB laboratory? 3. What quality indicators should be collected from the GeneXpert instrument to evaluate proper use? 4. What quality indicators should be collected from Xpert MTB/RIF Ultra testing to evaluate proper use? | 15 minutes |
| **Exercise 1: Reviewing quality indicators** | Aim: The objective of this exercise is to review quality indicator graph and to identify the problem(s), and list possible root causes of the problem(s). | 15 minutes |
| **Handout and exercise/prac­ticals in module** | 1. Worksheet (W1:M5): Reviewing Quality Indicators |  |
| **Additional resources or references:** | * Framework of indicators and targets for laboratory strengthening under the End TB Strategy. Geneva, World Health Organization. 2016. (WHO/HTM/TB/2016.18). <http://www.who.int/tb/publications/labindicators/en/> * GLI Quick Guide to TB Diagnostics Connectivity Solutions. Global Laboratory Initiative. 2016. <http://stoptb.org/wg/gli/assets/documents/gli_connectivity_guide.pdf> |  |

Module notes

**Slides 1-9** Introduce participants to the fundamentals of quality (performance) indicator monitoring. Slide 6 should be customized to include quality indicators that are currently being collected the Tb laboratory

**Slides 10** Recommended quality indicators that are to be monitored for Xpert MTB/RIF Ultra implementation. Skip this slide if Xpert MTB/RIF Ultra is not available. Note- the targets for these have not been defined in the literature

**Slide 15-20** Introduce participants to basic review and data analysis of quality (performance) indicator. The module ends with the exercise in which participants put into practice what they have learned

EXERCISE: REVIEWING QUALITY INDICATORS

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| **Purpose of exercise:** | The objective of this exercise is to review quality indicator graph and to identify the problem(s), and list possible root causes of the problem(s) |
| **Preparation:** | * Work in groups of four * Worksheet- Performance Indicators (W1:M5) |
| **Materials required:** | Full list of materials participants need:   * Pens (Red and black / blue) * Worksheet- Performance Indicators (W1:M5) |
| **Total time of exercise:** | 15 minutes |
| **Feedback expected:** | Select a someone to report your findings & suggestions |

CONDUCTING THE EXERCISE

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| Read out instructions (shown above in “preparation”) | 1 minutes |
| Break into groups of four. Review the supplied performance indicator graph & answer the questions | 10 minutes |
| Select one group to provide feedback and discuss their findings | 5 minutes |

Debriefing exercise/practical

Discuss the answers and feedback. Do all groups have the same or similar outcomes? What is different?

Question 1: What could be the reason for the increase in Xpert MTB/RIF tests errors? List potential corrective actions? – **Numerous e.g. power failures / maintenance / sample quality etc.**

Question 2: If all errors were from one module, list the possible reasons for the increase in Xpert MTB/RIF test errors? List potential corrective actions? - **The test errors are associated with one module (e.g. Error code 5007). Solution module replacement**

Question 3: If all errors were from one user, list the possible reasons for the increase in Xpert MTB/RIF test errors? List potential corrective actions? - **The test errors are associated with a particular user. Solution- re-train**

Worksheet (W1:M4)- Reviewing Quality Indicators

**Time:** 15 minutes

**Instructions:** Review the graph and answer the following questions

Question 1: What could be the reason for the increase in Xpert MTB/RIF errors rate? List potential corrective actions?

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Question 2: If all errors were from one module, list the possible reasons for the increase in Xpert MTB/RIF error rate? List potential corrective actions?

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Question 3: If all errors were from one user, list the possible reasons for the increase in Xpert MTB/RIF error rate? List potential corrective actions?

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MODULE ANSWERS

1. Why are collecting performance indicators important?

Performance indicators are tracked against pre-determined targets, any unexplained change in performance indicators should be documented and investigated. Therefore, performance indicators monitor testing site performance and help sites identify changes in trends that may indicate problems in testing

1. What general quality indicators should be collected to evaluate the functioning of the TB laboratory?

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| **Indicator** | **Target** |
| Number of tests performed, by type of test | - |
| Service interruptions | No interruptions |
| Stock outs | No stock outs leading to service interruption |
| Equipment down time | No equipment downtime leading to service interruption |
| Turnaround time (TAT) | 90% of results meet test-specific TAT |
| Test statistics (quality indicator) report | 100% reports completed by defined due date |
| EQA results | >90% EQA panels are passed |
| QC results | >90% QC results meet expected criteria |
| Specimen rejection | <1% specimens rejected |
| Customer satisfaction | >80% surveyed customers are satisfied |

1. What quality indicators should be collected from the GeneXpert instrument to evaluate proper use?

See slides 8 & 9

1. What quality indicators should be collected from Xpert MTB/RIF Ultra testing to evaluate proper use?
   * Number and proportion of trace calls, disaggregated by patient group
   * Number and proportion of patients whose first sample produces a trace result and who have a repeat test conducted, disaggregated by patient group
   * Number and proportion of patients who have a repeat test conducted whose second sample gives a result for MTB detection and rifampicin resistance, disaggregated by patient group