



MONITORING QUALITY INDICATORS

Facilitator Guide (FG1)

SUMMARY OF MODULE AT A GLANCE

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: <ul style="list-style-type: none">Understand the importance of quality indicator monitoringList quality indicators that are needed to monitor the quality of TB laboratory testsList 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	<ol style="list-style-type: none">Why are collecting quality indicators important?What general quality indicators should be collected to evaluate the functioning of the TB laboratory?What quality indicators should be collected from the GeneXpert instrument to evaluate proper use?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	<ol style="list-style-type: none">Worksheet (W1:M5): Reviewing Quality Indicators	

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

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

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:	<ul style="list-style-type: none"> Work in groups of four Worksheet- Performance Indicators (W1:M5)
Materials required:	Full list of materials participants need: <ul style="list-style-type: none"> 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

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.**

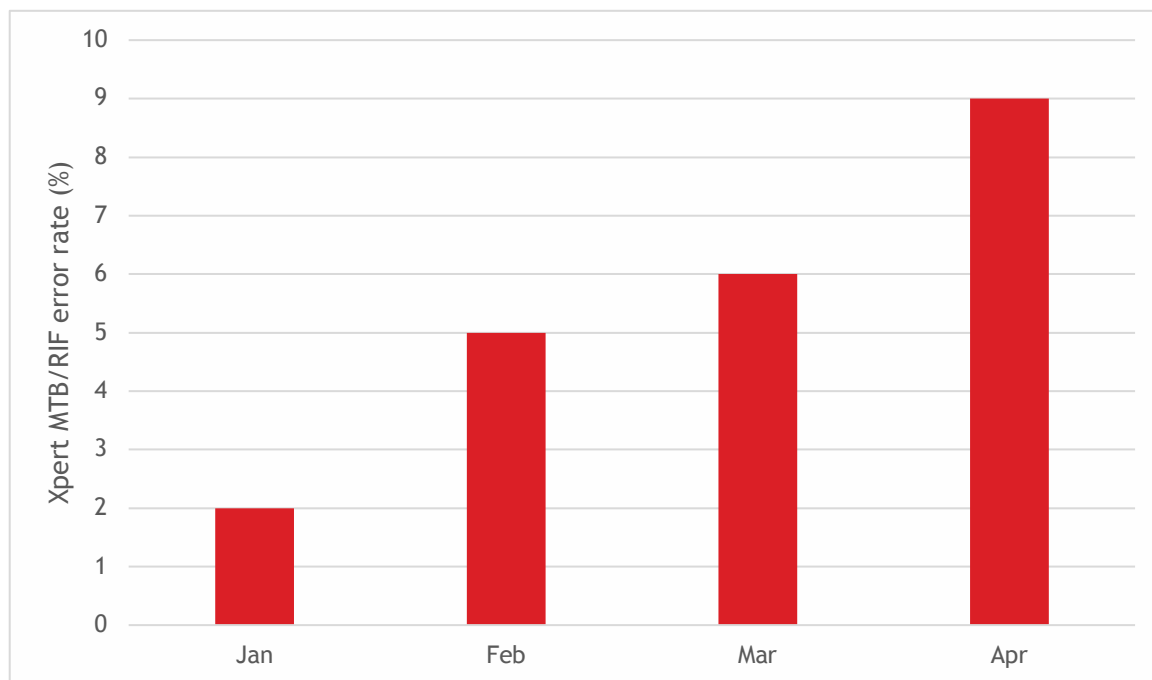
Question 2: If all errors were from one module, list the possible reasons for the increase in Xpert MTB/RIF test errors? List potential corrective actions? - **The test errors are associated with one module (e.g. Error code 5007). Solution module replacement**

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?

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?

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?

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

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

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

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

See slides 8 & 9

4. 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