# Training

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## User training

**Objective**

The objective of the GeneXpert user training is to enable laboratory personnel to perform the Xpert MTB/ RIF test, understand the testing algorithms, interpret Xpert MTB/RIF test results, maintain the GeneXpert instrument, and supply the NTP with relevant performance indicators. This training is intended for both laboratory personnel and administrators who provide support for Xpert MTB/RIF test implementation at testing sites. The GeneXpert user training is intended to provide users with the practical skills required to perform the Xpert MTB/RIF test; at least 50% of the GeneXpert user training is practical.

**Course prerequisites**

* Participants must have good computer skills and basic laboratory skills to attend the course.

**Modules**

The following GLI modules may be customized for use in the GeneXpert user training[[1]](#footnote-2):

Xpert MTB/RIF training:

Module 1: TB Biosafety

Module 2: Specimen Collection & Referral

Module 3: Procurement & Inventory Management

Module 4: Recording & Reporting Results

Module 5: Monitoring Quality Indicators

Module 6: Quality Assurance of the Xpert MTB/RIF (Ultra)

Module 7: External Quality Assurance

Module 8: Clinical Guide to Xpert MTB/RIF (Ultra)

Link to GLI modules: (<http://www.stoptb.org/wg/gli/TrainingPackage_XPERT_MTB_RIF_Ultra.asp>)

**Competency assessment**

Learners are required to complete theoretical and practical competency assessments after the training. Learners receive competency certificates if they obtain at least 80% in both assessments.

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## GeneXpert Advance User (Superuser) Training

**Objective**

The objective of the GeneXpert-user advanced training is to enable selected laboratory personnel to co- ordinate GeneXpert implementation activities, such as supervisory visits, competency assessments, and troubleshooting, and to collect performance indicators in-country.

This training is intended for administrators and senior Xpert MTB/RIF users who have a proven track record and who have been selected to mentor other sites. The GeneXpert user advanced training is intended to provide learners with the practical skills required to perform the Xpert MTB/RIF test assessments; at least 50% of the GeneXpert-user advanced training is practical, and includes an onsite supervision visit.

Course prerequisites

Participants must have successfully completed the GeneXpert-user basic training, and demonstrate good mentoring skills to be selected for the GeneXpert-user advanced training.

Modules

The following GLI modules may be customized for use in the GeneXpert-user advanced training:

* Module 1. TB Diagnostics: Global Policies and Strategies
* Module 2. Implementing TB Diagnostics: Practical Considerations
* Module 3. Plan and Establish a Sample Referral Network for TB Diagnosis
* Module 4. Plan and Implement a Quality Assurance Programme
* Module 5. Plan and Implement Connectivity Solutions
* Module 6. Monitor and Evaluate Your Programme
* Module 7. Funding Your Programme
* Module 8. Plan an Integrated Diagnostic Approach

Link to GLI modules: (<http://www.stoptb.org/wg/gli/TrainingPackage_XPERT_MTB_RIF_Ultra.asp>)

#### Competency Assessment

Participants are required to complete theoretical and practical competency assessments after the training. Learners receive competency certificates if they obtain at least 80% in both assessments.

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## Clinical Training

**Objective**

The objective of the Clinical training is to instruct clinicians in the fundamentals of the GeneXpert technology, introduce the testing and treatment algorithms and to provide guidance on the requesting and interpretation of Xpert MTB/RIF test results.

This training is intended for clinicians involved in diagnosis and management of TB. The Clinical training is intended to provide participants with the theoretical skills for requesting and interpretation of Xpert MTB/RIF test results. The training is lecture–based, with practical demonstrations and exercises.

**Course prerequisites**

There are no specific requirements for clinicians who wish to attend this course.

**Modules**

The following GLI modules may be customized for use in the GeneXpert user training:

* Overview of TB & TB diagnostics (Module 0 & 1)
* Clinical guide to the use of the Xpert MTB/RIF test (Module 11)
* Xpert MTB/RIF testing algorithms
* Collection & transportation of samples (Module 3)
* Xpert MTB/RIF test recording & reporting (Module 6 & 7)
* Case studies

**Competency Assessment**

Participants are required to complete a theoretical competency assessment after the training. Learners receive competency certificates if they obtain at least 80% in the assessment.

1. Customization includes supplementing the training modules with country-specific TB data and testing algorithms. Training materials are available in English, French, Portuguese and Russian. [↑](#footnote-ref-2)