

Medical Laboratory Practices and Management Course

Course Information Sheet

Strengthening laboratory systems and capacity for improved diagnostics services

Introduction

Laboratory services are an essential component of healthcare delivery and can be utilised effectively at every level of healthcare delivery. In the African region, many commonly presenting diseases may be diagnosed using basic, essential laboratory tests. Access to reliable laboratory diagnostic services is among the major challenges contributing to lack of appropriate and timely patient care. In Africa, many health facility managers sideline the laboratory, and diagnostic services are not recognised as an integral component of an effective, quality healthcare system.

Medical laboratories in Africa are managed by laboratory technical staff, many of whom have not received adequate training in all aspects of laboratory Quality Management Systems (QMS). Currently, many medical laboratories are preparing for national or international accreditation, and in some countries this is becoming a requirement for registration, making the training of laboratory supervisors and managers of paramount importance. The Medical Laboratory Practices and Management Course is designed to prepare laboratory managers to ensure laboratories meet accepted standards in all aspects of laboratory operations, and provide quality and reliable diagnostic services to communities.

Goal

The Medical Laboratory Practices and Management Course contributes to improved health through competency-based training of medical laboratory supervisors.

Objectives

By the end of the Laboratory Practices and Management Course, participants should be able to:

1. Discuss principles of quality management systems
2. Demonstrate knowledge and skills in effective laboratory documentation and personnel management
3. Employ knowledge and skills in the management of laboratory resources
4. Demonstrate quality measures employed in the diagnostic cycle
5. Organise the laboratory to enhance safety and productivity
6. Develop systems for continuous quality improvement
7. Demonstrate competency in the evaluation of quality management systems and customer satisfaction
8. Employ laboratory data in problem solving and decision making.

Target group

Laboratory staff with diploma level training or above with at least two years' practical experience, including responsibilities in laboratory management and staff supervision.

Course organisation and structure

The course is organised in Three Phases. Phases One and Three are conducted through distance learning at the participants' work stations. Phase Two is residential training conducted at the Amref Health Africa's Central Laboratory facilities in Nairobi.

Year 2024

- i. **Phase One: a two month pre-training period** equivalent to **80 hours** of course work. In this phase, pre-course tasks and exercises are sent to each participant to carry out a general assessment and examine various aspects of the laboratory services in their own institutions, and make a report. This phase will be conducted between **17 June to 9 August 2024**

- ii. **Phase Two:** this is a **two week residential training period** equivalent to **70 hours** of course work. The purpose is to equip the participants with appropriate knowledge, skills and attitudes to undertake and apply quality management systems in their laboratory procedures, and to address diagnostic errors in their places of work. This phase will be conducted between **26 August - 6 September 2024**
- iii. **Phase Three:** This is a **three month work-based training period** equivalent to **120 hours** of course work. This work-based training is conducted at the participant's place of work, designed to enable participants to apply theory into practice. Participants are expected to implement **Action Plans** developed during Phase Two, and submit a report. This phase will be conducted between **9 September to 19 November 2024**

Course modules

The course involves a minimum 270 hours and a maximum of 570 hours of course work, organized in 10 modules:

Module 1: Course Introduction and pre-training course tasks and exercises

Module 2: Overview of Health Facility Management

- Introduction to health facility management, governance and leadership
- Concepts of laboratory accreditation and Quality Management Systems

Module 3: Organization, Documentation and Personnel Management

- Management of laboratory records and documents
- Organisation and personnel management

Module 4: Laboratory Resource Management

- Management of laboratory equipment
- Management of laboratory chemical and reagents
- Laboratory financing and budgeting
- Purchasing and inventory management

Module 5: Managing Laboratory Testing Process

- Specimen management and reporting
- Point of care testing
- Quality Assurance in laboratory services
- Principles of outbreak management and the role of laboratory in investigation of disease outbreaks

Module 6: Laboratory Design and Bio-risk Management

- Essential laboratory design and utilities
- Bio-risk management

Module 7: Laboratory Evaluation and Continual Improvement

- Laboratory audits and management of non-conformities
- Fundamentals and process of laboratory support supervision and mentorship

Module 8: Customer service and Management Reviews

- Customer service; management reviews

Module 9: Information Management, Utilisation and Application

- Laboratory Information Management System
- Introduction to basic data analysis and utilisation
- Introduction to operational research
- Fundamentals of monitoring and evaluation

Module 10: Work-based Training including implementation of improvement projects and other course tasks

Course fees: US\$ 2,495

The fees cover tuition, course materials, books and other reference materials, stationery and photocopies, courier services, local travel and field trips to supervisory sites, accommodation, meals, and incidental costs within Nairobi.

- Fees do not cover return travel and visa expenses from the participants' working stations to Nairobi; or care of pre-existing medical conditions
- Travel insurance is mandatory for all participants during Phase Two of the course, that will be held in Nairobi, Kenya.

For further details about the course and request for application forms, please contact:

laboratory.training@amref.org or david.isaboke@amref.org