



REFRESHER TRAINING COURSE IN LABORATORY DIAGNOSIS OF MALARIA

Introduction

Laboratory confirmation of malaria infection is an essential component of fever case management, and should be provided at all levels of health care to ensure correct patient management, and minimise the use and cost of anti-malarial treatment drugs. The Global Technical Strategy for Malaria 2016–2030 was adopted by the World Health Assembly in May 2015 with the aim of achieving a malaria-free world by 2030. To achieve these goals countries must adopt policies and practices that improve the quality of laboratory confirmation of malaria diagnosis. This will retain the confidence of clinicians in laboratory results, leading to improved case management and appropriate use of antimalarial drugs.

Objectives

- i. To improve the quality of malaria microscopy and essential malaria diagnostic procedures, including use of malaria rapid diagnostic tests (RDT)
- ii. To ensure malaria diagnostic services are conducted by competent and motivated staff.

Participants planning to take the WHO AFRO/Amref Health Africa External Competence Assessment of Malaria Microscopists (ECAMM) course are encouraged to first take the Refresher Training Course in Laboratory Diagnosis of Malaria to be adequately prepared for the ECAMM course.

Course administration

The course is conducted by Amref Health Africa either in Nairobi, Kenya, or at alternative locations on request.

Frequency of the course

The course is held on request, usually before External Competence Assessment of Malaria Microscopists or National Competence Assessment of Malaria Microscopists courses.

Entry requirements

Participants should be laboratory technologists, laboratory technicians or pathologists working mainly in the malaria or parasitology sections of medical diagnostic laboratories. A maximum of 15 participants are accepted per course due to its practical nature and need for personal instruction.

Course structure

This one week intensive and interactive course has a minimum structured time of 35 tutor contact hours, consisting of lectures, presentations and discussions, laboratory practice and slide review, and demonstrations. Daily sessions are 2.5 theory hours and 4.5 hours for practical sessions including preparing and staining blood films, reading pre-prepared, well-characterised slides, and preparing and interpreting malaria RDT.

Course content

At the end of this training course the participants will be expected to:

- Demonstrate an understanding of the epidemiology of malaria
- Describe the biology of the malaria vector and parasite
- Prepare thick and thin blood films and stain the films to a high standard
- Identify all human malaria species (*P.f.*, *P. v.*, *P.o.*, *P.m.*) microscopically.
- Identify all malaria parasite stages microscopically
- Differentiate pseudo-parasites and artifacts from true malaria parasites
- Quantify malaria parasites accurately
- Carry out malaria Rapid Diagnostic Tests (RDTs) correctly
- Identify sources of errors in malaria diagnosis and discuss their remedies
- Maintain and store microscopes properly
- Participate in development of national and facility-based plans for QA/QC in malaria diagnosis
- Monitor the performance of malaria Rapid Diagnostic Tests (RDTs)
- Develop and maintain Standard Operating Procedures (SOPs)
- Perform technical work according to standards of good laboratory practice (GLP)

Participants should be prepared to provide information of malaria laboratory diagnostic activities in their countries, and to prepare and present draft workplans for improving malaria diagnostic services in their places of work.

Course assessment

Throughout the course, participants will be examined to determine the acquisition of knowledge, skills and competence. Participants will be assessed at the beginning and end of the course to measure improved performance and will receive a Certificate of Attendance at the close of the course.

Course Duration and Dates

The course will be conducted **on request by institutions** and can be conducted either at Amref Health Africa in Nairobi or at alternative suitable locations.

Course fees: USD 1400 per person covering the following:

- **USD 710** for tuition fees which includes: provision and maintenance of slides from the WHO Slide Bank, training materials, facilitation and coordination, laboratory supplies, equipment and infrastructure
- **USD 90** for lunch, tea and snacks – this cost is added to the tuition fees for Nairobi-based courses
- **USD 600** for accommodation, dinner, local transport and incidental costs for Nairobi-based residential participants

The course fees are applicable to courses conducted at Amref Health Africa in Nairobi, Kenya. Therefore, course fees may vary and are negotiable depending on the training location.

For further information about the course, kindly contact:

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