



## 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 healthcare 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 malaria diagnosis. Improved quality of laboratory-confirmed diagnosis of malaria will retain the confidence of clinicians in laboratory results, leading to improved case management and appropriate use of antimalarial drugs.

### **Course 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 manned by competent and motivated staff.

It is recommended that participants planning to take the WHO AFRO/Amref Health Africa External Competency Assessment of Malaria Microscopists (ECAMM) course first take the Refresher Training Course in Laboratory Diagnosis of Malaria to be adequately prepared for the ECAMM course.

### **Course administration**

This course is conducted by Amref Health Africa's Regional Laboratory Programme and is held at Amref's Central Laboratory, Nairobi, Kenya. Alternative locations are considered on request.

### **Frequency of the course**

The course is held on request, usually before an External Competency Assessment of Malaria Microscopists (ECAMM) course.

### **Entry requirements**

Participants should be laboratory technologists, laboratory technicians, laboratory scientists 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 will be 2.5 theory hours and 4.5 hours for practical sessions in preparing and staining of blood films, reading pre-prepared, well-characterised slides, and preparing and interpreting malaria RDT.

## Course content

At the end of this training course, 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 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 artefacts from true malaria parasites
- Quantitate malaria parasites accurately
- Carry out malaria Rapid Diagnostic Tests (RDTs) correctly
- Identify sources of errors in malaria diagnosis and implement their remedies
- Maintain and store microscopes properly
- Participate in development of national and facility-based plans for quality assurance in malaria diagnosis
- Monitor the performance of malaria Rapid Diagnostic Tests (RDTs)
- Participate in developing national plans for regular support supervision and on-site training and mentoring of staff
- Develop and maintain relevant Standard Operating Procedures (SOPs)
- Perform technical work according to standards of good laboratory practice (GLP)
- Perform an evaluation of malaria diagnostic services in a laboratory

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

## Course assessment

Throughout the course, participants will be examined to determine their 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 fees for Year 2021: USD 1400** per person covers the following:

- **USD 710** for tuition fees which includes: provision and maintenance of slides from the slide bank, training materials, facilitation and coordination, laboratory supplies, and use of equipment and training facilities
- **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

### Note:

- 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 attending Nairobi-based courses to cover medical emergencies.

Kindly contact Amref Health Africa for further information:

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