

# The MalariaCare Toolkit

## Tools for maintaining high-quality malaria case management services

### Standard operating procedures for the conduct of outreach training and supportive supervision

Download all the MalariaCare Tools from: [www.malariacare.org/resources/toolkit](http://www.malariacare.org/resources/toolkit)



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U.S. President's Malaria Initiative

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## Acronyms

ACT	artemisinin-based combination therapy
EQA	external quality assurance
HIMS	health information management system
ID	identification
OPD	outpatient department
OTSS	outreach training and supportive supervision
mRDT	malaria rapid diagnostic test
SOP	standard operating procedure
WHO	World Health Organization

## Introduction

This document provides guidelines for conducting outreach training and supportive supervision (OTSS) and provides the necessary guidance to ensure that supervisors are able to efficiently perform their responsibilities in a standardized manner. This is a step-by-step guide that outlines the procedures involved in conducting OTSS at health facilities as a means to generate sustained performance improvement in malaria case management as well as management of other diseases.

## Outreach training and supportive supervision

The OTSS program is designed to provide ongoing support to strengthening clinical and diagnostic services in health facilities by identifying improvement needs in knowledge and skills and providing support to clinicians and data and laboratory staff to address these needs. OTSS is a strategic approach that is part of a broader quality assurance system and encourages two-way communication between facility staff and supervisors to improve performance. In doing this, it also focuses on staff understanding and meeting the health care needs and expectations of their patients.

A standardized checklist, approved by the national program, is used during supervision and mentorship visits to the health facilities. The checklist specifically addresses malaria-related clinical and diagnostic service areas that are important in ensuring the quality of malaria case management in support of the national program strategy, including essential areas such as laboratory, pharmacy, and clinical components. The checklist is a tool that should guide the overall process during an OTSS visit. It is useful for data collection, identifying areas of strengths and weaknesses, and in doing so highlighting opportunities for mentoring.

This document is a reference manual that should be provided to each supervisor participating in OTSS. The manual contains detailed instructions on how to use and complete the checklist when they visit health facilities.

## Composition of the OTSS team

- The core OTSS team shall be composed of clinical and laboratory staff with the requisite skills and experience needed to support the facility in terms of malaria rapid diagnostic test (mRDT) use, microscopy, quality assurance management system/continuous quality improvement, clinical care, and data and information management. Some countries may choose to add further team members—such as pharmacists and/or monitoring & evaluation specialists—to focus on other important areas relevant to improving a facilities case management performance.
- Supervisors may be from the national or subnational level.
- All team members should be adept in the OTSS supervision process and use of the checklist prior to beginning visits.

- Adequate numbers of copies of the checklist in paper or electronic form and other logistics should be assembled by the team beforehand.
- Each member of the team should understand the respective roles and responsibilities of all team members, including who will be using which sections of the checklist during the supervisory visits.
- The team should agree on a team leader, who will ensure feedback to the facility and be responsible for generating a facility OTSS report.

## What to do before, during, and after the OTSS visit

In order to ensure consistency and good practice, certain tasks should be accomplished before, during, and after each OTSS visit. Below is a brief list of such activities; more detail about the key tasks is included in the next section.

### Before the visit

The following should be undertaken before the visit takes place.

#### Logistics

- Team members should know in advance the date and time they will be visiting the health facility.
- Team members should be provided with any relevant data about case management at the facility. This could come from previous OTSS visits or other data sources (e.g., health management information system data).
- The health facility should be informed regarding time of visit, estimated duration, and expectations at least one week before the visit. If a repeat visit, this should include sharing the previous action plan for the facility with the facility manager.
- Transport, fuel, and funds should be secured for the visit.
- Responsibilities should be assigned to respective team members based on appropriate sections of the checklist.
- Materials should be organized to accompany the team:
  - OTSS checklist/tablet with installed electronic data system with the relevant password.
  - OTSS standard operating procedures (SOPs).
  - Stationery, pen, pencil.
  - Copy of notification of the visit.
  - Job aids.
  - Any other relevant policy documents or reference materials (e.g. national malaria diagnosis and treatment guidelines).

## During the visit

During the visit, the following actions should be addressed.

### **Opening meeting**

The team members should have an opening meeting with the facility manager and staff identified by the manager to discuss:

- Purpose of the visit.
- Duration and timing of the visit.  
The duration of the OTSS visit will depend on a number of factors, including the facility level, number of previous visits, past facility performance, and staff workload. In general, we recommend that each team perform one to two OTSS visits each day. Initial visits may take up to one day. During follow-up visits, smaller facilities without laboratories should be completed in a half day, though larger facilities with laboratories (hospitals and large health centers) may require a full day to perform adequate evaluation and mentoring. Visits to facilities should be timed so as to ensure adequate patient flow to appropriately observe diagnostic and clinical performance, which generally implies a morning visit for the smaller facilities when patient demand is highest.
- How the supervision will be conducted (process of OTSS).
- Progress on the previous action plan: ask, observe, and verify if the previous action plan items have been completed.
- Fill in the visitors' book.

Based on responsibilities previously outlined, each team member will then proceed to the area of the facility for which they are responsible during the OTSS visit to collect data, observe, coach/mentor and provide feedback.

### **Collecting data**

Be thorough, completing all information on the checklist. Be aware and courteous of facility staff time constraints; they have many responsibilities, so use as little of their time as possible to obtain the required information.

### **Observation**

The number of observations conducted for mRDT performance, malaria microscopy performance, and clinical case management performance should be determined by the size of the facility to ensure that the information is providing representative data on a facility's ability to provide proper case management. When possible, we recommend up to three observations in each performance area at small-to-medium size health facilities, and more in hospital or reference level facilities with multiple key providers. Each provider should be observed at least once and up to three times during performance of their professional skill (microscopy, RDT, clinical visit). You may stay with each individual provider for as long as you feel it is necessary to help them improve performance,

but should only record their performance once on the checklist before moving to another staff member. Team members should observe health workers performing their work with minimal interruption. In situations in which there are no clients available, re-visit the facility. Team members, in addition to performance of specific tasks on the checklist, should observe client flow; triage; use of guidelines, job aids, and SOPs; and visibility of behavior change communication materials.

### **Mentoring**

Mentoring should begin after you have completed all observations with a particular health worker. Whenever an opportunity arises in which the health worker is not able to appropriately/satisfactorily perform certain procedures, the supervisor should demonstrate/mentor the health worker on how to carry out the procedure and ask the staff to repeat while observing. This should be done in an encouraging and professional manner. Mentoring can be on a particular task identified on the checklist, on recording data properly in the registers, on logistical issues within the facility, and/or on interactions with patients and their caregivers.

### **Feedback at the end of the visit**

- The team should meet and brief each other on the findings and proposed measures for improvement.
- The team should discuss their findings and how they will present them to the facility staff.
- The team leader should present the findings to the facility staff using constructive feedback.
- The team should encourage facility staff to respond to their feedback and raise questions.

### **Action plan**

- The team should discuss progress made on any previous action plans.
- The team should discuss challenges identified and other feedback from the visit.
- The team should help facility staff develop an action plan using the template included with the checklist.
- The team should emphasize the importance of identifying a person at the facility responsible for each action and expected completion dates. Preferentially, each action item should be accomplished at latest by the time of the next planned OTSS visit.

After the visit

### **Report generation**

The national program may decide to generate additional reports for individual facilities or for administrative regions as a whole.

## Turning in checklist and tablets

Paper checklists or electronic tablets should be turned in to the identified point person immediately after the OTSS visit has been completed and data has been uploaded.

# Components of the OTSS visit guided by the checklist

## Clinical observation module – general principles

Clinical observations should be conducted **FIRST THING** during every OTSS visit. Clinical supervisors should observe febrile patients only and should observe a different clinician for each observation wherever possible. If a facility has fewer than three clinicians, supervisors may record observations from one of the staff more than once.

Wait until you are finished observing a worker to provide any mentoring to ensure that the observations capture what the worker knew prior to the visit. You should only intervene during the observation if the patient's condition is critical or they will be harmed by the practices of the worker. If the patient is in critical danger, stop the observation and address the situation. If the patient receives incorrect treatment or referral, but is not in danger, wait until the end of the interaction, ask the patient to wait outside the consultation room, consult with the health worker and finally ask the patient to return to receive any updated information. These corrective actions should be performed in a professional and collegial manner so as to assure health worker autonomy and patient confidence in their performance. Unless absolutely necessary, the supervisor should not take over clinical decision making, but instead focus on supporting the facility health worker to understand where the errors were, understand how to make appropriate corrections, and understand how to avoid them in the future.

## Clinical health care worker observation steps

This section provides information on the facility's ability to provide high-quality clinical care to malaria patients based on the following minimum standards as well as tasks calculated into the overall score:

- Clinician checks for at least one sign of severe disease.
- Clinician correctly orders a malaria test.
- Clinician prescribes treatment correctly in accordance with malaria test results and final diagnoses.

During the observation, the supervisor will observe the clinician conduct an assessment and will assess the following components:

- Taking a clinical history.
- Checking for signs of severe disease.
- Conducting a focused physical exam.
- Ordering diagnostic testing.

- Treating based on the clinical history, examination and diagnostic test results.
- Providing a final diagnosis of malaria versus other febrile condition.
- Providing treatment.
- Communicating with the patient what the next steps are for treatment and follow-up, what the expected outcomes are and the potential side effects of treatment and danger signs of treatment failure are.
- If a referral is made, then the plan is completely understood by the patient or caregiver. A complete referral document is sent with the patient.

## Diagnostic observation modules – general principles

This section should be conducted wherever mRDTs or microscopy are carried out in the facility. The observation portion of this task should be conducted FIRST to ensure sufficient time and patients to observe three tests being prepared and read. Please observe a different worker for each observation wherever possible. If a facility has fewer than three workers who administer mRDTs and/or microscopy, supervisors may observe one of the workers more than once. Wait until you are finished observing a worker to provide any mentoring to ensure that the observations capture what the worker knew prior to the visit. You should only intervene during the observation if you believe the patient is critically ill and needs urgent attention, or is at risk of being given an incorrect diagnostic result. If the patient is in danger, stop the observation and address the situation. If the health care worker makes an incorrect diagnosis, but the patient is not in danger, wait until the end of the observation, then in a collegial way, as soon as the patient steps out of the room, address these key incorrect practices with the worker. Then work with the provider to follow up with the patient to ensure correct diagnosis prior to departing.

## Malaria RDT observation steps

This section provides a snapshot of the facility's capacity to correctly prepare and read mRDTs. This section assesses the capacity of a health care worker based on overall steps in performing an mRDT test. When providing feedback to a worker, emphasis should be placed on the worker's correct performance of the following minimum guidelines:

- Collects an adequate amount of blood.
- Dispenses blood in the correct well.
- Applies buffer to the correct well.
- Waits for the correct amount of time (20-30 minutes, according to the manufacturer's instruction).
- Reads the test results correctly.
- Records results correctly in the register.

## Malaria microscopy slide observation steps

### **Observation: Preparation of thick and thin blood smears**

This section assesses a laboratory's capacity to prepare thick and thin blood films based on the following minimum standards:

- Blood sample is spread into a 1-2 cm diameter circle.
- Slide is air-dried before staining.

### **Observation: Staining of thick and thin blood films**

This section assesses a laboratory's capacity to stain thick and thin blood films for malaria microscopy based on the following minimum standards:

- Use of standard 10 percent Giemsa solution (if Giemsa stain is used).
- Immersion of the thick smear slide in stain for the appropriate length of time.

### **Observation: Reading of thick and thin blood films**

This section assesses a laboratory's capacity to read malaria slides based on the following minimum standard:

- Technician/surveyor agreement on slide positivity.

In addition, using the checklist as a guide, you will be observing other steps associated with the preparation, staining, and reading of malaria microscopy.

*\* Important note for all observations: When providing feedback and identifying issues/weaknesses to be addressed with action plans, priority should be placed on reaching these minimum standards. In order to fully analyze data, it is key to ensure that each observation is fully filled out, with no questions left blank. If you are unable to conduct any of the planned observations, please record the reason why you were unable to conduct the observation.*

## Other areas of laboratory assessment

### **Human resources – laboratory staff**

The purpose of this section is to collect information on the number and type of laboratory staff currently working at the health facility being visited. You are asked to note the number of employed (“full time” and “part time”) personnel in each category listed. If a category of staff is not currently working at the health facility being visited, enter “0” (zero). This information can be used by the district and region to understand the current capacity of facilities and ensure the staffing levels of a facility are in adherence with national guidelines.

### **Training overview – laboratory staff**

The purpose of this section is to collect information on whether laboratory staff have received training on mRDTs or malaria microscopy within the past two years. If staff have been trained in mRDTs or microscopy within the past two years, indicate the number of employed personnel (“full time” and “part time) who have been trained. If visiting a hospital or higher-level facility, include only workers in the outpatient department (OPD) being assessed. This information can be used to understand the current capacity of facilities and advocate for training for health care workers.

### **Stock-outs for malaria microscopy and mRDTs**

Answer the question regarding stock-outs of essential materials that are necessary for a laboratory to perform malaria microscopy and mRDTs. If you noted that a stock-out occurred that prevented the laboratory from conducting malaria diagnostics, continue with this section by indicating which materials from the list provided were out of stock. A stock-out of mRDTs lasting seven or more days within the last three months should be identified. This information can be used to improve provision of supplies.

### **Microscopes, spare parts, and maintenance**

Note the quantity of microscopes and spare parts where appropriate. Continue by answering the questions about maintenance of microscopes. This information can be used by the district to improve provision of necessary microscopy equipment.

### **Minor laboratory equipment**

Tick the box that most closely approximates the quantity of the listed laboratory equipment. This information can be used by the district to improve provision of necessary laboratory equipment.

### **Internal quality assurance**

Answer each of the questions by consulting with the laboratory staff. Tick “yes,” “no,” or “unknown” as appropriate. This information can be used by district, regional, and national programs to assess the proportion of facilities that participate in external quality assurance (EQA) performance programs.

### **External quality assurance**

Confirm with facility staff if the laboratory participates in a malaria EQA scheme outside of these OTSS visits. This information can be used by district, regional, and national programs to assess the proportion of facilities that participate in EQA performance programs.

### **Turnaround time for malaria test results**

Examine the laboratory register to determine if turnaround time for slide preparation and reading is documented there. If yes, calculate the average turnaround time for all malaria tests for the last week and enter it. This information can be used by the facility to improve performance, or by the supervisor when providing feedback.

### **Malaria reference materials**

Determine whether or not the most recent version of the national guidelines for microscopy, SOPs for microscopy, and bench aids for microscopy are **PHYSICALLY** present and available for use in the laboratory. Indicate whether any SOPs on use of mRDTs in the OPD/laboratory are physically available. Indicate whether any bench aids on use of mRDTs in the OPD/laboratory are physically available. This information can be used by the district to ensure that facilities are provided with up-to-date reference materials.

### **Assessment of used mRDT devices**

This section allows a supervisor to review used mRDT devices with facility staff to identify clear deficiencies in the use of the test, such as whether cassettes are being properly labeled for each patient, whether blood was correctly applied to the device, and whether the control line was used to confirm valid results of the test. In the course of the OTSS visit, this assessment should occur **AFTER** observation of workers conducting mRDTs, to ensure that sufficient time and patients are available to conduct those observations.

### **Malaria microscopy slide re-checking**

To fill in this section, have a laboratory staff member select five weak positive slides and five negative slides from the slide archive. This staff member records the results for each slide on a piece of paper. After re-reading each slide, note down your results. Do this **BEFORE** looking at staff results. Record your results along with the staff results in the space provided and note the type of agreement. View the slides with discordant results or any other slides with interesting findings together with the health care worker. Discuss your results, show them specific examples of any discrepancies/interesting findings and discuss what implications these might have for patient care. Use this opportunity for teaching and discussion.

## General OTSS module

### **Human resources – outpatient department staff**

This section collects information on the number and types of OPD staff currently working at the health facility being visited. You are asked to note the employment status of each category of listed personnel (“full-time” or “part-time,” including assigned students and interns). If a category of staff is not currently working at the health facility being visited, enter “0” (zero). This information can be used by the district and region to ensure staffing in facilities meets national guidelines.

### **Training overview – outpatient department staff**

This section collects information on how many OPD staff have received training in mRDTs or case management in the past two years. If no staff have been trained in mRDTs or case management in the past two years, enter “0” (zero). If visiting a health center or lower level health facility, include all health care workers. If visiting a hospital or higher-level facility, include only workers in the OPD being assessed. This information can be used by the district and region to understand the current capacity of facilities and advocate for training for health care workers.

### **Inpatient services and referral systems**

This section collects information on inpatient capacity and a facility's referral practices. Determine if the facility has inpatient beds. If the facility generally refers patients with severe malaria to a higher-level facility, indicate the level of facility. Continue by identifying the standard practices for referral to a higher-level facility.

### **Waste management**

This section identifies how the facility disposes of medical waste. Request to see a physical copy of guidelines on standard precautions for infection prevention. If a physical copy cannot be produced, tick "no" for this question.

### **Malaria reference materials**

Confirm if the most recent version of the Ministry of Health guidelines for case management and/or the most recent version of case management algorithms are physically present in the OPD. This information can be used by the district and region to ensure all facilities are supplied with up-to-date reference materials.

### **Malaria reporting**

Confirm if copies of malaria monthly reports from the last three months are available at the facility. Confirm if outpatient registers are available at the facility.

### **Stock-outs of antimalarial drugs**

Answer the questions regarding stock-outs of essential antimalarials. If you note a current stock-out, or if the facility reports a stock-out in the past three months that lasted seven or more consecutive days, mark "yes" next to the antimalarial. If a medication is not typically carried in this level of health facility, mark "N/A" on the list. This information can be used by the district to improve provision of supplies, and assist facilities with improving stock reporting to central medical stores to improve stocks.

### **Stock-outs of other essential drugs**

Answer the questions regarding stock-outs of essential drugs. If you note a current stock-out, or if the facility reports a stock-out in the past three months that lasted seven or more consecutive days, mark "yes" next to that drug on the list. If a medication is not typically carried in this level of health facility, mark "N/A" next to that drug on the list. This information can be used by the district to improve provision of supplies, and assist facilities with improving stock reporting to central medical stores to improve stocks.

### **Clinical equipment**

Identify availability of clinical equipment that aids or is necessary in identifying the causes of febrile illness included on the checklist. This information can be used by the district to improve provision of necessary clinical equipment.

## **Malaria diagnostics**

Indicate whether the facility performs malaria microscopy, then indicate whether the facility performs mRDTs.

### **Register review**

This section provides information on key adherence components of high-quality malaria case management:

- Are clinicians prescribing according to national guidelines?
- Are clinicians ordering diagnostic tests for suspected malaria cases?
- Are clinicians treating based on test results?
- Are registers being fully and correctly completed?

### Pharmacy/Clinical register

This section evaluates whether providers are adhering to the World Health Organization (WHO) policy recommendation of testing prior to treatment with an artemisinin-based combination therapy (ACT). If the pharmacy does not maintain a register, this information may be found in the clinical register. While reviewing the pharmacy register (or clinical register if there is no pharmacy record available) randomly choose one or two patients treated with ACTs per day over the past month – for a total of ten patient evaluations. Record the patient identification (ID) numbers. Use the laboratory register (or clinical register, if the laboratory register is not maintained), and record if a malaria diagnostic test (mRDT and/or microscopy) was performed.

### Laboratory register

This section evaluates whether workers are providing the correct treatment, in alignment with diagnostic test results. If the laboratory does not maintain a register with patient ID numbers, this information may be found in the clinical register. Identify five patients for each type of diagnostic result: positive mRDT test, negative mRDT test, positive malaria microscopy result, and negative malaria microscopy result. Record the patient ID numbers. Using the pharmacy register (or clinical register, if the pharmacy register is not maintained), record whether they were prescribed an ACT.

### Feedback and action plans

After identifying three weaknesses/issues to address within the next three to six months, work with facility staff to develop an action plan addressing these issues. Any issue that can be addressed with available resources can be considered, however priority should be placed on bringing facilities up to the minimum performance standards in each measured indicator category (microscopy, mRDTs, clinical performance, adherence to testing before treatment, adherence to negative test results, adherence to positive test results).



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