

# MALARIA DIAGNOSTICS QUALITY ASSURANCE CHECKLIST

## 1. Health Facility / Laboratory Information

<b>Name of health facility</b>	<input type="text"/>
City/Town	<input type="text"/>
County	<input type="text"/>
Level of health facility	<input type="checkbox"/> Level 2 <input type="checkbox"/> Level 4 <input type="checkbox"/> Level 6 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 5
Ownership	<input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Others <input type="checkbox"/> Faith Based <input type="checkbox"/> Military      Specify <input type="text"/>
Address (P.O. Box)	<input type="text"/>
Telephone/Fax	<input type="text"/>
E-mail	<input type="text"/>
Head of health facility	<input type="text"/>
Telephone/Fax	<input type="text"/>
E-mail	<input type="text"/>
Head of laboratory	<input type="text"/>
Telephone/Fax	<input type="text"/>
E-mail	<input type="text"/>
Hrs of operation HF: weekdays	<input type="text"/>
Hrs of operation lab: weekdays	<input type="text"/>
Date of visit (Month/Year)	<input type="text"/>
Supervision Round	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4

Has this site ever been visited by any laboratory  Yes  
supervisory team in the past 3 months?  No  
 Unknown

## 2. Human Resources - Laboratory Staff

Number of laboratory staff: Note the number of full-time, part-time or casual employees

Tick "N/A" if staff type is not employed at this facility

	Full-time	Part-time	Casual	N/A
Laboratory technologist	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Laboratory technician	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Students on attachment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of staff above that perform malaria diagnostics	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of support staff	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## 3. Refresher Training of Laboratory Staff

### Laboratory Staff

Number of **laboratory** staff who attended refresher training in laboratory malaria diagnostics (microscopy, RDT) during the previous calendar year (January - December)

Number trained

No trainings attended (tick)

#### 1. Name of course attended or certification received

Date  
(Month/Year)

Duration in hours

Who provided the training?

#### 2. Name of course attended or certification received

Date  
(Month/Year)

Duration in hours

Who provided the training?

#### 3. Name of course attended or certification received

Date  
(Month/Year)

Duration in hours

Who provided the training?

## 4. Water and power supply

### Water Supply

Rain water  Yes  No

Well/Borehole  Yes  No

Creek/stream/river  Yes  No

Bottled water  Yes  No

Is there any problem with water supply?  Yes  No

Power supply  Yes  No

Main  Yes  No

Generator  Yes  No

Solar  Yes  No

Fuctional back-up generator  Yes  No

Do power cuts interfere with the ability to perform laboratory malaria diagnosis?  Yes  No

Is the number of power sockets in the lab sufficient?  Yes  No

Is there any problem with power supply?  Yes  No

If yes comment

## 5. Laboratory Equipment

Number of functional microscopes in use in the health facility

Total number of microscopes (functional AND non-functional)

Is care and maintenance of microscopes routinely done by laboratory staff ?

Yes  No  Don't Know

Is service and repairs of microscopes performed by engineers or contractors?  Yes  No

If yes, when was the last service or repair performed?

From the available records, what is the frequency of service/repairs?

Frequency  Monthly  Quarterly  Semi-annually  Annually  Unknown  Does not occur

Date(Month/Year)

Comment

Weighing scale Functional

Non-functional

pH meter Functional

Non-functional

## 6. Minor Laboratory Equipment

**Tick the box that most closely approximates the number of items found in the lab**

Staining racks	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Staining vessels	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Slide drying racks	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Pipettes	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Timers	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Tally counters	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Slides storage boxes	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Graduated cylinder (50-500mL)	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+
Calculators	<input type="checkbox"/>	0	<input type="checkbox"/>	1-2	<input type="checkbox"/>	3-5	<input type="checkbox"/>	6-9	<input type="checkbox"/>	10+

## 7. Stock-outs

Did this laboratory experience a stock-out lasting 7 or more consecutive days during the last three months that prevented the laboratory from performing malaria diagnostics?

Yes

No

Unknown

**If this facility experienced a stock-out, please tick which materials listed below were out of stock**

RDTs	<input type="checkbox"/>	Out of stock	Lancets	<input type="checkbox"/>	Out of stock
Microscope Slides	<input type="checkbox"/>	Out of stock	Methanol	<input type="checkbox"/>	Out of stock
Immersion oil	<input type="checkbox"/>	Out of stock	Ethanol (96% methylated)	<input type="checkbox"/>	Out of stock
Pensils	<input type="checkbox"/>	Out of stock	Soap	<input type="checkbox"/>	Out of stock
Gloves	<input type="checkbox"/>	Out of stock	Detergents	<input type="checkbox"/>	Out of stock
pH paper	<input type="checkbox"/>	Out of stock	Disinfectants	<input type="checkbox"/>	Out of stock
Giemsa stain A	<input type="checkbox"/>	Out of stock	Lens tissue	<input type="checkbox"/>	Out of stock
Field stain A	<input type="checkbox"/>	Out of stock	Lens cleaning fluid	<input type="checkbox"/>	Out of stock

Field stain B  Out of stock

Cotton wool  Out of stock

Filter papers  Out of stock

Gauze  Out of stock

**Cont' of No.7**

What is the primary source of this facility's laboratory supplies and consumables?

1. Hospital procurement
2. Direct purchase from vendors

What procedure does this facility use to order laboratory consumables, reagents and chemicals?

1. Tendering
2. Cash
3. Central pulling system (District/National)
4. Others/Specify

**8. Malaria Reference Materials**

**Only tick "YES" if you can verify that the following materials are physically available**

**Standard Operating Procedures**

Collection of blood sample	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Preparation of thick and thin blood films	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Preparation of buffered water	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Preparation of Giemsa stain	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Preparation of Field stain	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Staining thick/thin blood films with Giemsa	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Examination and reporting	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Slide selection for QC	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Use, care and maintenance of microscope	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Use of Rapid Diagnostic Tests (RDTs)	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>

Have the SOPs been updated within the past 12 months?  Yes  No  Unknown

**Policies/Guidelines**

Malaria Policy

National Guidelines for Laboratory Diagnosis of Malaria

Guidelines for Diagnosis, Treatment and Prevention of Malaria in Kenya

Malaria Quality Assurance Manual

Others/Specify

**Bench / Job Aids**

Malaria microscopy images	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Sample collection	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Smear preparation	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Staining	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Smear examination and reporting	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Slide selection and validation	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>
Malaria RDTs	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	If "yes", location	<input type="text"/>

Have the bench/job aids been updated within past 12 months?  Yes  No  Unknown

### 9. Internal Quality Assurance

Are positive control slides available for testing new batches of stain?	<input type="checkbox"/> yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Are standards used to calibrate pH meter?	<input type="checkbox"/> yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Are stained slides rechecked by a person in the laboratory?	<input type="checkbox"/> yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Are results from QA exercises recorded in a register?	<input type="checkbox"/> yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Are slides stored for rereading?	<input type="checkbox"/> yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Are slides stored in slide boxes?	<input type="checkbox"/> yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown

### 10. External Quality Assurance

Does the laboratory participate in a malaria EQA scheme?  
 Yes  No    Name/affiliation of monitors     Date of last validation   
(Month/Year)

Does the laboratory participate in any other EQA schemes (HIV/TB or others)?  
 Yes  No    Date of last validation   
(Month/Year)

Name/affiliation of monitors

Does the laboratory receive feedback for its EQA schemes?     Yes  No  Unknown

### 11. Turnaround Time for Malaria Test Results

Test type		Turnaround time in minutes
1.	<input type="checkbox"/> RDT <input type="checkbox"/> Blood Slide	<input type="text"/>
2.	<input type="checkbox"/> RDT <input type="checkbox"/> Blood Slide	<input type="text"/>
3.	<input type="checkbox"/> RDT <input type="checkbox"/> Blood Slide	<input type="text"/>

  

Average turnaround time in minutes: RDT <input type="text"/>	Average turnaround time in minutes: BS <input type="text"/>
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### 12. Observation: Preparation of thick and thin blood smears

#### Observation 1

#### Procedure

Procedure	Steps Correct	Comments
1. Patient preparation [6]	<input type="text"/>	<input type="text"/>
2. Specimen collection (finger stick) [5]	<input type="text"/>	
3. Specimen collection (venipuncture) [7]	<input type="text"/>	
4. Spreading thin films [6]	<input type="text"/>	
5. Spreading thick films [5]	<input type="text"/>	
6. Labeling [1]	<input type="text"/>	
7. Disposal of infectious material [2]	<input type="text"/>	
8. Slide drying [1]	<input type="text"/>	
9. Slide storage [1]	<input type="text"/>	

  

<b>Indicate the stain used</b>	
<input type="checkbox"/> Giemsa	
<input type="checkbox"/> Field	
<input type="checkbox"/> Both	

### 13. Observation: Staining and Reading of Thick and Thin Blood Films

#### Observation 1

##### Procedure

	Tasks Correct	Comments
1. Preparation of of Giemsa working solution [3]	<input type="text"/>	
2a. Giemsa staining procedure[4]	<input type="text"/>	
2b. Field staining procedure [5]	<input type="text"/>	
3. Slide drying [1]	<input type="text"/>	
4. Slide examination [5]	<input type="text"/>	
5. Result reporting [4]	<input type="text"/>	
6. Slide cleaning, slide & microscope storage [4]	<input type="text"/>	

**Indicate the stain used**

Giemsa

Field

Both

### 14. Observation: RDT

#### Observation 1

##### Procedure

	Tasks Correct	Comments
1. RDT preparation [6]	<input type="text"/>	
2. Patient preparation [5]	<input type="text"/>	
3. Blood collection + dispensing [5]	<input type="text"/>	
4. RDT procedure + reading results [5]	<input type="text"/>	
5. Recording results [2]	<input type="text"/>	
6. Disposal of infectious material [2]	<input type="text"/>	

### 15. Laboratory Safety Practices

1. Is there an SOP for PEP?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
2. Is there an SOP for infection prevention?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
3. Are there MSDSs in the laboratory?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
4. Are PPE worn during laboratory procedures?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
5. Are wastes segregated and disposed appropriately?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
6. Are waste disposal containers correctly labeled?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

### 16. Issues Identified and Recommendations

#### Guidance for the Outreach Training and Support Supervision Report

*Please attach a copy of your summary report to the completed OJT checklist(s) and present to NPHLS/NMRL/DMC*

*No more than 1-2 pages - preferably typed, otherwise hand written in pen*

- I. General Information
  - Include the name(s) of the Supervisor(s) conducting the site visit
  - Include the names of the facilities being visited
  - Include the dates of the visits
- II. Narrative
  - a. describe specific corrective action taken during your visit;
  - b. present overall comments and impressions on the state of the facility, staffing, training, quality assurance, and documentation
  - c. present challenges faced by the laboratory staff and briefly report on their impressions



Percent agreement (Total TP + Total TN) \* 100 / Total number of slides reread

### Monthly Report on Laboratory Confirmed Malaria Cases

#### Refer to Laboratory Register

##### Microscopy

Date (Month/Year)

Number of blood slides examined

Number of positive blood slides

#### Refer to Laboratory Register

##### RDTs

Date (Month/Year)

Number of RDTs tested

Number of positive RDT

### Prescriber Adherence with Negative Malarial Tests

	<u>Test type</u>		<u>Antimalarial prescribed</u>		
1.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
2.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
3.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
4.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
5.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
6.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
7.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
8.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
9.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>
10.	<input type="checkbox"/> RDT	<input type="checkbox"/> Blood Slide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If prescribed, name of drug <input type="text"/>

Total number of negative RDTs

Total number of negative blood slides

Total number of patients with a negative malaria test and an antimalarial medicine prescribed



Total number of patients with a negative malaria test and NO antimalarial medicine prescribed