

Module 3

Hospital Surveillance for Malaria

Objective: Determine the magnitude of the problem of malaria among pregnant women admitted to the hospital

Objectives:

Among ALL hospitalized women

- Describe problem of malaria, including severity and occurrence of clinical malaria, through surveillance of both pregnant and non-pregnant women admitted for management of a malaria-related illness
- Determine which can be recommended:
 - IPTp and ITNs or
 - Improved case management and ITNs

Topics

- A. Eligibility criteria
- B. Surveillance description (questionnaire)
- C. Surveillance team
- D. Assessment team notes
- E. Sample logbook
- F. Data analysis: Key indicators
- G. WHO criteria for severe malaria diagnosis

Eligibility Criteria

- Fill in logbook for all women who are admitted, pregnant or not, with or without malaria, anemia, or other malaria-related illness
- Fill out surveillance form for all women (pregnant and non-pregnant) admitted with malaria or any illness who are being presumptively treated for malaria admitted to:
 - Female internal medicine unit
 - Gynecologic unit
 - Delivery unit
 - Other IPD department

Surveillance Timetable

	Weeks
■ Planning surveillance	2-4
■ Pre-surveillance preparations	2-3
■ Surveillance training	1
■ Start-up of surveillance	2
■ Surveillance	8-9
■ Post-surveillance	8

Pre-surveillance

- Select site
- Select time
- Prepare the community
- Hire team or identify staff
- Adapt and translate questionnaire
- Pretest questionnaire
- Identify training site
- Manage logistics of training
- Arrange training

Supplies

■ Laboratory

- Count-down timer
- Slides
- Lancets
- Isopropyl alcohol
- Giemsa stain
- Cotton wool/gauze
- Slide boxes or tissue
- Container for used lancets
- Staining jars
- Slide drying rack
- Hair dryer
- Microscope
- Immersion oil
- Lens cleaner
- Lens cleaning tissue
- Examination gloves
- Computer with Epi Info installed

■ Office

- Clipboards
- Pencils
- Pencil sharpener
- Eraser
- Pens
- Ink pad/ ink
- logbook

Questionnaire

Woman's name: _____

☐
.....

**HOSPITAL MALARIA SURVEILLANCE
DATA ABSTRACTION FORM**

Abstracter name _____ Today's Date: ____/____/____

Interviewer number _____

PATIENT DETAILS

1. Age of patient: []

2. Last menstrual period
Not applicable []
Date of last menstrual period / /
if *UNKNOWN*, ✱mark this box []

3. Pregnant []
YES=1, NO=2, UNKNOWN=3

3a. If YES, what is the gestational age (weeks) []

3b. If NO, what is the date of the last delivery / /
if *UNKNOWN*, ✱mark this box []

HISTORY OF ILLNESS AND TREATMENT

4. Prior to admission, did the patient have *YES=1, NO=2, DON'T KNOW=3*:
a. Convulsions []
b. Change in level of consciousness []

5. Did patient receive any antimalarial treatment in the 7 days before admission []
YES=1, NO=2, DON'T KNOW=3

If YES, ✱mark all that apply
Chloroquine []
Sulfadoxine-Pyrimethamine (SP) []
Quinine []
Artesunate []
Other []
(specify and explain): _____

CURRENT ADMISSION

6. Admitting diagnosis: []
]

malaria = 1
severe or cerebral malaria = 2
severe anemia = 3
Other = 4 (specify): _____

- Note: Tear off woman's name after data entry and verification
- Patient details
- History of illness and treatment

7. Any manifestations of severe or cerebral malaria (✱mark all that apply)

Prostration []
 Respiratory distress (acidotic breathing) []
 Multiple convulsions []
 Circulatory collapse []
 Pulmonary oedema (radiological)..... []
 Abnormal bleeding..... []
 Jaundice []
 Haemoglobinuria []
 Severe anemia []
 Impaired consciousness..... []

LABORATORY RESULTS

8. Malaria blood film done []

YES=1, NO=2

8a. If YES, result..... []

positive = 1

negative = 2

unknown = 9

8b. If positive, parasite count: _____

8b. If positive, species (✱mark all that apply)

Plasmodium falciparum []

Plasmodium vivax []

Plasmodium malariae []

Not determined []

9. Hemoglobin/Hematocrit (lowest) _____

10. Glucose (lowest) _____

11. Creatinine (highest) _____

12. Bilirubin (highest) _____

13. Plasma bicarbonate _____

14. Mean Cell Volume _____

15. Lumbar puncture

Glucose

Protein

Cell Count

RBC: _____ WBC: _____ WBC differential: _____

16. Other []

(specify): _____

■ Details on current admission

■ Lab results (depending on availability)

TREATMENT

17. Antimalarial medications given (✖mark all that apply)

Chloroquine..... []
Sulfadoxine-Pyrimethamine (SP) []
Quinine..... []
Artesunate..... []
Primaquine..... []
Proguanil..... []
Other []

(specify and explain): _____

18. Other therapy given (✖mark all that apply)

Anticonvulsant..... []
Transfusion of whole blood / packed RBC..... []
Dextrose (D50)..... []
Lasix (or other diuretic)..... []
Oxygen..... []
Vitamin K..... []
Other []

(specify): _____

DISCHARGE INFORMATION

19. Woman's outcome []

Full recovery = 1

Recovered with some residual disability = 2

Died = 3

Unknown = 9

20. Pregnancy outcome (for pregnant women only):

Did woman deliver..... []

YES=1, NO=2

20a. If YES, outcome []

alive = 1

fetal loss = 2

best estimate of gestational age: _____ weeks

20b. If NO, outcome []

no labor = 1

labor stopped = 2

21. Discharge diagnosis: []

malaria = 1

severe or cerebral malaria = 2

severe anemia = 3

Other = 4 (specify): _____

22. Additional comments:

■ Treatment

■ Discharge
information

Surveillance Team

- Persons with clinical training
 - Physicians
 - Nurses
 - Midwives



Assessment Team Notes

- Ask about last menstrual period so as not to miss women early in pregnancy
- Adapt questions about antimalarials to local situation
- Adapt question about lab results to lab tests used in country

Sample Logbook

Date	Ward	Newly admitted women (total #)	Malaria and anemia admissions—women only			Number of forms completed	Comments
			Total	Preg	Nonpreg		
Date	Int						
	Gyn						
	Deliv ery						
Date	Int						
	Gyn						
	Deliv ery						

Key Indicators

- % of women hospitalized for malaria who are pregnant
- % of pregnant and non-pregnant women admitted to the hospital with malaria, anemia, or severe manifestation of disease
- % of pregnancies with fatal outcome for fetus or mother