

Module 3: Hospital Surveillance of Malaria Disease: Data Abstraction Form

Gathering information about malaria disease among all hospitalized women can provide descriptive information about whether or not pregnant women have more malaria illness, which in turn can be used to determine if intermittent preventive treatment (IPTp) should be recommended or if the focus should be on case management and use of insecticide-treated bed nets (ITNs).

A data abstraction form is used to collect the following information about all hospitalized women: history of illness and treatment, admission and discharge diagnoses, laboratory results of tests for malaria, and indicators related to severe malaria, treatment, and clinical outcome for the mother and fetus.

This module contains sample materials for hospital surveillance of malaria disease. These materials can and should be adapted to suit local needs. General guidance for conducting assessment surveys and managing data can be found in Chapters 3 and 4.

- A. Eligibility Criteria
- B. Surveillance Team
- C. Notes for Assessment Team
- D. Sample Logbook
- E. Severe *Plasmodium falciparum* Malaria in Adults: WHO's List of Clinical Manifestations and Laboratory Findings
- F. Analysis of Data

A. Eligibility Criteria

Women and units/wards: All women (both pregnant and nonpregnant) admitted to these hospital units/wards: women's internal medicine unit, gynecology, or delivery. The choice of units/wards should be individualized to the local situation so as to capture as many admissions by women---both pregnant and nonpregnant---as possible. The hospital may be operated by the government or by private concerns.

Note: If the surveillance is conducted only in maternity units, it will not provide data on the difference between how many pregnant and nonpregnant women become ill with malaria.

B. Surveillance Team

The abstraction form involves interpretation of medical records as well as making clinical judgments; therefore, the surveillance team should be made up of persons with clinical training, e.g., physicians, nurses, midwives.

C. Notes for Assessment Team

A record will need to be kept of all women who are admitted, pregnant or nonpregnant, with or without malaria or anemia. Data abstraction forms need to be filled out only for those with malaria.

It is important to ask about last menstrual period in order not to omit women early in their pregnancy.

Questions 7 and 19 should be adapted to reflect the medications that are available and used in the country. It might be helpful to list both generic and trade names.

Questions 10-18 (Laboratory Results) should also be adapted to reflect laboratory tests used in the country.

Note that the laboratory results recorded in Q. 10-18 may serve to validate symptoms and conditions noted in Q.9.

D. Sample Logbook

Date	Ward	Newly admitted women (total #)	Malaria and anemia admissions—women only			Number of forms completed	Comments
			Total	Preg	Nonpreg		
Day/mo/yr	Int						
	Gyn						
	Delivery						
Day/mo/yr	Int						
	Gyn						
	Delivery						

E. Severe *Plasmodium falciparum* Malaria in Adults: WHO’s List of Clinical Manifestations and Laboratory Findings

Clinical manifestations and laboratory findings of severe *P. falciparum* in adults include:*

- Prostration
- Impaired consciousness
- Respiratory distress (acidotic breathing)
- Multiple convulsions
- Circulatory collapse
- Pulmonary edema (radiological)
- Abnormal bleeding
- Jaundice
- Hemoglobinuria
- Severe anemia

*Adapted from: World Health Organization. *Severe falciparum malaria*. Royal Society of Tropical Medicine and Hygiene, 2000. 94 (1 Suppl): p. 2.

F. Analysis of Data

Important outcome variables include:

- Percentage of women admitted to the hospital with malaria, anemia, or severe malaria who were pregnant, by level of transmission (if surveillance is conducted in areas of both stable and unstable malaria)
- Percentage of pregnancies with a fatal outcome for the fetus or for the mother