# MALARIA IN PREGNANCY

## TRAINING MANUAL FOR HEALTH PROVIDERS

REPUBLIC OF GHANA

MINISTRY OF HEALTH

# FACILITATOR'S ANSWER BOOKLET


GHANA HEALTH SERVICE
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H
S
Your Health • Our Concern


CDC
USAID
FROM THE AMERICAN PEOPLE
President's Malaria Initiative


ROLL BACK
MALARIA


Quality Health Partners
QHP


access
Access to clinical and community
maternal, neonatal and women's health services


World Health
Organization


Investing in our future
The Global Fund
To Fight AIDS, Tuberculosis and Malaria

# INTRODUCTION

This document is intended for facilitators. It provides the answers to the Role Plays, Case Studies and Exercises in the document entitled: *Malaria in Pregnancy Training Manual for Health Providers: Participant's Guide.*

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# ROLE PLAY: 1

## MALARIA DURING PREGNANCY

**Directions:**

Two participants in your group will assume (or be assigned) roles. One will be a midwife, and the other a pregnant woman. Both participants taking part in the role-play and observers should spend a few minutes reading the background information and prepare for the exercise so that all can participate in the discussion.

### Scenario:

Akua Mansa, an eighteen-year-old primigravida who is 24 weeks pregnant has come to the antenatal clinic to register. She tells you that she heard that malaria could cause problems during pregnancy and wants more information about this.

**Discussion:**

1. Discuss the key issues about malaria in pregnancy with this woman.

2. Ask participants to give reasons for their answers. This would help them to understand the issues.

### Possible Responses:

1. Pregnant women are more prone to malaria because their immunity is reduced.

2. Pregnant women with malaria parasites may have no symptoms.

**Reason:** *Malaria parasites can exist in the blood and or placenta without producing symptoms in the person*

3. Malaria causes maternal anaemia.

**Reason:** Malaria parasites breaks down red blood cells leading to anaemia (which if severe can cause maternal death)

4. Malaria can lead to pre-term birth or low birth weight

**Reason:** when malaria parasites get into the placenta, they interfere with oxygen and nutrients

transfer from the mother to the unborn baby leading to low birthweight babies. The fever together with toxins released by the parasites can cause pre-term labour and pre-term birth.

# CASE STUDY: 3.1

## MAKING A BIRTH PREPAREDNESS PLAN

**Objective** – Describe the need for a birth preparedness plan.

**Instructions:**

Read and analyse this case study individually. When the others in your group have finished reading it, answer the question below. When all groups have finished, we will discuss the case study.

### Scenario:

Amina Yakubu is 28 years old and a tomato seller at the market. She has reported at the antenatal clinic at the nearby Polyclinic for the first time. On taking her history, the midwife finds out that this is Amina's second pregnancy and that she delivered her first baby with an untrained TBA because she did not have money to pay the charges at the health centre in her hometown. Unfortunately she lost the baby from umbilical cord infection on the sixth day after birth. On examination, you confirm she is 14 weeks pregnant.

### Question for discussion:

1. As a midwife, what advice would you give Amina on birth preparedness?

### Answer:

1. I would advise Amina on the benefits of delivering in a place of her choice where there is a skilled provider to attend to her and help her to make arrangements to deliver in such a place. I will make sure she finds out how to contact the skilled provider or healthcare facility at the appropriate time. This is especially important as she lost the first baby.

2. I would particularly encourage her to save or look for other source of funding that she can access when needed to pay for care during normal birth and emergency care. I would also discuss emergency funds that may be available through the community or other groups. Ensure that client has adequate insurance cover

3. I would ask her to discuss the available means of transport with her family and close relations i.e.
    a. Transportation to the place of birth (if not the home) and
    b. Emergency transportation to an appropriate healthcare facility if

complications arise.

4. I would find out from her how decisions are made in the family and encourage her to discuss with her family

    a. How decisions will be made when labour begins or if complication sets in (who is the key decision-maker?), and
    b. Who else can make decisions if that person is not present?

5. I would also assist Amina in deciding on the necessary support arrangements including:

    a. Companion of her choice to accompany her when she is being transported to the health facility during labour and if possible stay with her during labour and childbirth.

    b. Someone to care for her house during her absence.

6. I would encourage Amina to arrange for blood to be donated on her behalf ahead of time.

7. I would advise her and check that she has kept the necessary items needed for a clean and safe birth and to ensure that the items are easily retrieved when needed.

8. I would also ensure that she knows the danger signs, which indicate a need to enact the complication readiness plan:

    a. Vaginal bleeding
    b. Difficulty in breathing
    c. Fever
    d. Severe abdominal pain
    e. Severe headache/blurred vision
    f. Convulsions/loss of consciousness
    g. Labour pains before 37 weeks

9. Finally I would explain to her the signs of labour listed below, which indicate a need to contact the skilled provider and enact the birth preparedness plan:

    a. Regular, progressively painful contraction
    b. Lower back pain
    c. Bloody show
    d. Loss of liquor

# ROLE PLAY: 3.1

## BASIC COMMUNICATION SKILLS

**Objective** – Describe the importance of communication skills

**Directions:**

Two participants in your group will assume (or be assigned) roles. One will be a midwife and the other a pregnant woman. Both the participants taking part in the role-play and the observers should spend a few minutes reading the background information and prepare for the exercise so that all can participate in the discussion.

### Scenario:

Mrs. Koshie Lamptey is a 35 year old, Gravida 5 and Para 4. She reports at the polyclinic for ANC. Ms. Joyce Mensah, the midwife sits behind her desk and offers Mrs. Lamptey a seat on a bench about two meters from her desk along with other clients.

Joyce starts taking the history and instructs Mrs. Lamptey to mention the years that she had her four previous children with their sex in chronological order.

Mrs. Lamptey starts by saying: "1992 girl, 1993 girl..."
Just then another midwife comes to talk to Joyce who diverts her attention to listen to the other midwife.

After talking to the other midwife Joyce shouts to Mrs. Lamptey "Yes! Start again"
"1992 girl, 1993 girl, 1994 boy..."

Before Mrs. Lamptey could mention the fourth born Joyce interrupts and screams "Ei Maame have you never heard about family planning?" to the hearing of all the clients.

### Discussion Questions:

1. What are your comments on Joyce's communication with Mrs. Lamptey?
1. If you were the midwife how would you have communicated with Mrs. Lamptey?

Answers:

1. Joyce:
    a. Did not welcome and introduce herself to Mrs. Lamptey
    b. Did not provide privacy
    c. Did not make Mrs. Lamptey comfortable
    d. Was judgmental of Mrs. Lamptey's obstetric history
    e. Was insensitive to Mrs. Lamptey's feelings
    f. Joyce was rude to the client
    g. There was poor communication and interruptions.

2. I would:

- Welcome and introduce myself to the client
- Ensure the privacy of Mrs. Lamptey
- Ask the client's name
- Speak in a quiet, gentle tone of voice
- Listen to Mrs. Lamptey and respond appropriately.
- Encourage Mrs. Lamptey to ask questions and express her concerns.
- Allow Mrs. Lamptey to demonstrate understanding of information provide.
- Explain all procedures/actions and obtain permission before starting.
- Show respect for client and her beliefs.
- Be empathetic and non judgmental.
- Avoid distractions while interacting with the client.

# CASE STUDY: 4.1

## INTERMITTENT PREVENTIVE TREATMENT

### Objective:

To describe how to put a pregnant woman on SP under IPT

**Instructions:**

Read and analyse this case study individually. When the others in your group have finished reading it, answer the questions below. When all groups have finished, we shall discuss the case study by groups.

### Scenario:

Abena Kyere is 28 years old and a trader. She has reported at the antenatal clinic for the first time. On taking the history, she is six months pregnant and has slight oedema on both feet. She has not taken any medication. On examination the uterus is 26 week in size.

### Questions for Discussions:

1. How will you manage this woman?
2. If she has taken some medication, what will you tell her?

### Answers:

1. This is the first visit and she is about 26 weeks. She is therefore eligible for IPT.
   Since she has not taken any medication, she can be given the IPT1,but before giving her the SP, ask whether she is allergic to sulpha drugs. If she is not allergic,
   give IPT1 as DOT. If allergic to sulpha drugs, do not give IPT1; instead encourage her to sleep under an ITN and/or use mosquito repellents and take other preventive measures.

2. If she has taken some medication, ask her what she took. If it was SP, ask her to come back for the IPT one month after the dose of the SP. In addition give haematinics and anti-helmintics (albendazole). Also advise client on nutrition.

# ROLE PLAY: 4.1

## USING THE FLOWCHART TO MANAGE A PREGNANT WOMAN

**Directions:**

Participants will be in groups of two and be assigned roles. One plays a role of a health provider and the other a pregnant woman. The participants should spend a few minutes reading the background information and prepare for the exercise.

### Scenario:

Participants should demonstrate the use of the flowchart by interviewing and examining a pregnant woman and following the directions of the arrow. A participant plays the role of a pregnant woman while another plays the role of a midwife.

### Discussions:

Participants should get the opportunity to practice and they should go through all the possible options

### Answer:

No Answers; participants should discuss the flow charts

## CASE STUDY 5.1

### ITNs AND OTHER PROTECTIVE MEASURES

Joyce Ablor reported at the health facility (with pregnancy four months old) feeling ill and was given treatment for malaria after she was confirmed by laboratory tests. She met the midwife in town a week later and told the midwife that she had recovered from the malaria and that she was happy because she could now return to her job and make money in preparation for the unborn child. She however returned to the health facility three weeks later with chills. She was again treated for malaria. As she was going a community health nurse (CHN) asked her if she had an ITN. Joyce replied she did not have though she knows its benefits. The CHN on hearing this, sold her a net, taught her the best way to hang it and encouraged her to use it consistently. So, she returned to her home knowing that she was not likely to get malaria again. Four weeks later, Joyce reported at the clinic complaining of a headache. The midwife was baffled so she asked Joyce whether she consistently used the ITN. Joyce nodded in the affirmative. Upon counselling her she found out that Joyce likes watching television and TV room was not protected.

### Questions for Discussion:

1. Can you give reasons why Joyce had malaria three times in two months?

   **Answer:**

   In the first instance, she was not protecting herself with any preventive measure.
   In the second instance the room in which she slept had the ITN to protect her but spent most of her time in the room where there was no protection thus re-infecting herself for the third time.

2. What advice will you give her in the correct use of ITNs to prevent her from getting malaria?

   **Answer:**

   She should make sure she uses the ITN every night and that she should make sure there are no mosquitoes trapped in the nets before she tucks it in. She should ensure that there are no holes or tears in the mosquito nets. In all, she should not use harsh soaps to wash long lasting insecticidal treated nets and so reduce the life span of the insecticide in the net.

3. What advice would you give Joyce to prevent her from getting further mosquito bites?

**Answer:**

Other personal protective measures like:

- Use of protective clothing
- Ensuring that there is mosquito screening in windows
- Close doors and windows before peak periods.

# CASE STUDY 6.1

## MANAGEMENT OF A PREGNANT WOMAN WITH UNCOMPLICATED MALARIA

**Instructions:**

Divide the participants into small groups. Participants should read and analyse this case study individually and then answer the case study questions as a group. The group should then share their answers.

### Scenario:

Akpene Agbo is 30 years old. She is approximately 24 weeks pregnant with her second baby. She comes to the antenatal clinic for her ANC visit complaining of severe headache, fever and dizziness. Akpene and her family moved to the area 6 months ago. She has never suffered from malaria.

### Basic Assessment:

1. What will you include in your initial assessment of Akpene and why?

- Greet Akpene respectfully and with kindness in order to establish rapport.
- Tell her what will happen during this visit. Listen to her carefully and answer her questions in a calm and reassuring way (as she will be more likely to share her concerns if she knows she is being listened to).
- Gather information about onset, duration, and severity of headache, fever, and dizziness, and any medications taken. Ask about previous history of headache, dizziness, recent illness, signs of other infection (pain when passing urine, chest pain, painful cough, abdominal pain/tenderness), history of any other danger signs, signs of uncomplicated and severe malaria, and history of the pregnancy (e.g., last menstrual period, symptoms of pregnancy, quickening, presence of contractions, leaking of fluid). This is because every pregnant woman living in malaria-endemic areas who presents with a fever should be suspected of having malaria (though other causes of fever in pregnancy should be considered).
- Check Akpene's temperature, pulse, blood pressure, and respiratory rate to identify and treat life-threatening illnesses as rapidly as possible.

- Carry out a laboratory test to confirm whether she has malaria or not.

2. What particular aspects of Akpene's physical examination will help you make an evaluation or identify her problems and needs, and why?

   - The examination should be based on information obtained in the history. However, Akpene's general appearance, her blood pressure, temperature, respiration, pulse, pallor in eyelids (to check for anaemia), signs of dehydration (loose, dry skin, sunken eyes) and abdominal examination (for fundal height, position and lie and foetal heart sounds) would help identify her problems and needs.

3. What screening procedures and laboratory tests will you include (if available) in your assessment of Akpene and why?

   - Check haemoglobin level, urine for protein and blood pressure.

## Evaluation:

You have completed your assessment of Akpene and your main findings include the following:

1. Akpene states she has felt well during this pregnancy, and began having fever and headache yesterday morning. She states that she does not have other symptoms such as cough, difficulty urinating, abdominal pain, or leaking of fluid from the vagina. She has not had convulsions or loss of consciousness. She has not taken any medication.

2. Akpene is 60 kg and her temperature is 38.7 C. Her blood pressure is 122/68 mm Hg, pulse rate is 92 beats per minute, and her respiration rate is 18 breaths per minute. Akpene is pale, not jaundiced and well hydrated. Her fundal height is 23 cm (which is compatible with the dates of her last menstrual period) and foetal heart tones are 140 beats per minute.

3. Her haemoglobin is 10.5 g/dl; the blood film for malaria is positive.

4. Based on these findings, what is Akpene's evaluation, and why?

   - Akpene is 24 weeks pregnant (determined by last menstrual period and uterine size)

   - She has uncomplicated malaria (based on her positive blood film, symptoms, and vital signs)

## Care Provision:

5. Based on your evaluation, what is your plan of care for Akpene and why?

**Note:** best approach is to refer her to see a doctor or medical assistant; especially if she is on IPT and still became ill with malaria

- In the absence of a doctor or medical assistant begin treatment for uncomplicated malaria: prescribe and observe her as she takes Artesunate-Amodiaquine (Artesunate 200mg-Amodiaquine 600 mg taken in two divided doses after meals) or tablets quinine (600mg (2) tablets every 8 hours for seven days), depending on client's preference and paracetamol (two tablets every 6 hours until her temperature returns to normal).
- Instruct her on how to take the medication for Day 2 (Artesunate 200mg-Amodiaquine 600 mg taken in two divided doses after meals) as well as paracetamol (two tablets every 6 hours until her temperature returns to normal).
- Instruct her on how to take the medication for Day 3 (Artesunate 200mg-Amodiaquine 600 mg taken in two divided doses after meals).
- Tell her and her relatives to return to the clinic in 48 hours if she is not feeling better, or immediately if she has signs and symptoms of severe malaria (e.g., convulsions, loss of consciousness).
- Tell her that she must take all of her medication, and describe the side effects it may cause (tinnitus, skin rashes, stomach upsets, low blood sugar, if she is on quinine).
- Tell her about the causes of malaria and how to prevent it, including the use of ITNs.
- Talk to her about her need to prepare a birth plan.
- Give iron and folate tablets, and counsel her to eat foods with adequate sources of iron when she gets better. Begin tetanus immunization if necessary.
- Schedule an appointment for her second ANC visit at 32 weeks.
- Record all findings and treatments in her Maternal Health Record Card.
- Thank her for coming to the clinic

## CASE STUDY: 6.2

# MANAGEMENT OF A PREGNANT WOMAN WITH SEVERE MALARIA

**Directions:**

The participants should go into small groups. The participants should read and analyse this case study individually and then answer the case study questions as a group. The groups should then share their answers.

## Scenario:

Victoria Ablor is 24 years old and reported at the maternity home looking ill and weak. During history taking she told the midwife that she was three months pregnant and had been ill for the past week and although she had taken some medication she had not improved. On examination, she had yellowish discolouration of the eyes and temperature was 39°C.

## Questions for discussion

1. If you were the midwife, what important physical examination would you carry out?

2. What tests would you carry out and why?

3. How will you manage her if there were malaria parasites in the blood?

## Answers:

1. Let her lie down and be comfortable.

   a. **Assess:** Ascertain if she is pregnant and check her gestational period.
   b**. Examine:** Check her BP, temperature, Pulse and respiration and record your findings.
   c. Pass a urethral catheter and record urine colour and volume.

2. Laboratory Investigation: A blood test should be done to detect malaria parasites. Also test the urine for protein.

3. Victoria is suffering from severe malaria. She should be referred to the hospital in the company of the midwife without further delay after the administration of rectal

Artesunate 160mg stat and an antipyretic (Paracetamol 1g stat). A note detailing history and any treatment given should be sent with the client. The doctor at the hospital will manage her appropriately.

## EXERCISE: 6.1

For answers, refer to page 29

# CASE STUDY: 7.1

## MALARIA INFECTION IN CLIENT WITH HIV INFECTION

**Instructions:**

Read the case study individually. When all others in the class have finished reading it, answer the study questions through group discussions.

Miss Beatrice Asantewaa is a 24 year old Gravida 3 Para 1 + 1 abortion. She is presenting for her first antenatal visit. She is now 5 months pregnant. She and her family live in Tema New town. She has worked as a petty trader since she was 18 years . She confides in you that she is HIV Positive and has known this fact since she was tested after her first child died a year ago. Today, she complains of slight headache with fever and bodily pains. She attributes this to the stress of her working in the sun and the pregnancy.

### Questions:

1.
   a. What additional history would you take from Miss Beatrice Asantewaa regarding her present complaints and why?
   b. What physical examination will you conduct on her and why?
   c. What laboratory tests will you include in your assessment of Beatrice and why?

### Answer:

a) History Taking:

- Ask about fever, and other symptoms of malaria and also other symptoms suggestive of other condition like ARIs.
- Treatments that have been given to her
- Whether her house has been screened with mosquito net or if she sleeps in an ITN

b) Examination:

- Pallor.
- Temperature
- Blood pressure and pulse 90 per minute.
- Examine also the heart, chest and liver and also spleen to ensure that they are not enlarged.

- SFH corresponds to 20 weeks.
- Genital inspection

c) Laboratory testing

- Her Haemoglobin level
- Blood film for malaria parasite
- Urine test
- Vaginal swab if suspected infection to confirm her Cd4

1. If the blood film showed malaria parasite 2+ and vaginal examination revealed candidiasis, what would be Beatrice's problem and how would she be managed?

**Answer:**

Beatrice should be referred for specialist care. However, Beatrice has malaria and should be treated with Artesunate-Amodiaquine or Artemether-Lumefantrine (SEE MODULE 6 for treatment doses.) She should also be treated for candidiasis.

## CASE STUDY 7.2

### SICKLE CELL DISEASE WITH MALARIA IN PREGNANCY

**Instructions**

Read the case study individually. When all others in the class have finished reading it, answer the study questions through group discussions,

Effia is a 20-year old primigravida who is a known Sickle Cell Disease (SS) patient. She is two months pregnant and has just been rushed to the health center. Her complaints are fever, chills, severe bodily aches, headache, yellowish discoloration of her eyes, vomiting and poor appetite. These symptoms started the night before and have worsened in spite of the two tablets of paracetamol she took in the morning. She has not yet started antenatal care and was waiting till her pregnancy reached four months.

1.

a. What history would you take in the assessment of Effia and why?
b. What physical examinations will you include in the assessment of Effia and why
c. What laboratory tests /other investigations will you include in assessment of Effia and why?

**Answer:**

a) History taken:

- Of her current condition
- Drug history
- Social history

b) Examination:

- Pallor and jaundiced
- Temperature
- Blood pressure and pulse
- Checking the heartbeats, chest and lungs
- Her liver and spleen are not enlarged. There is no abdominal tenderness
- She has tenderness in her left hip and thigh. There is no swelling of the limb or skin changes

c) Laboratory testing

- Her Hb and WBC
- Blood film for malaria parasite
- Urine test
- Sickling
- Electrophoresis
- Blood grouping

1. On examination and laboratory testing, Effia has been found to have mps 3+ and Hb was 4g/dl. What is Effia's problem and why?

**Answer:**

Effia has malaria because of the presence of malaria parasites and she has severe anaemia.

2. Based on your diagnosis what is your plan of care for Effia and why?

**Answer:**

She should be referred for specialist care because of the severe anaemia.

5. Based on these findings what are plans for continuing care of Effia and why?

**Answer:**

She should be advised to see the specialist in charge of sickle cell disease.
She should take her birth preparedness plan and complication readiness serious.

The midwife should help her prepare one.

# CASE STUDY 8.1

## RECORD KEEPING

**Directions**

This exercise should be used as a small group activity. Participants should read the case scenario individually and answer the questions as a group. Groups will share and discuss their answers.

### Scenario

Dede Fianu was 21 years old and was about 20 weeks pregnant. This was her second pregnancy but the first one ended in a spontaneous abortion. This was her first ANC visit and she had not experienced any problems during this pregnancy.

Dede had never had any serious disease in the past. The first day of her last menstrual period was about 5 months ago. Dede's body temperature was normal, her blood pressure was 120/80 mm Hg, and pulse was 80 beats per minute. Dede's conjunctiva, palm, and nail beds were slightly pale. The weight was 60kg and height 5ft 8inches.

The midwife palpates her abdomen and finds her uterus to be approximately 20 week size. Dede states that she felt the baby's movements. These findings confirmed a gestational age of 20 weeks.

Investigations carried out showed Hb of 7.2mg/dl, sickling negative and no albumin in the urine.

The midwife gave her the first dose of tetanus toxoid immunization and some iron tablets. The midwife also gave her three tablets of Sulphadoxine-Pyrimethamine (SP) for prevention of malaria, which Dede swallows with a cup of clean water. The midwife informed Dede that she would receive a total of three doses of SP during the pregnancy to decrease the risk of getting malaria. The midwife explains the possible complications that can arise with the mother and baby if the mother contracts malaria while pregnant. The midwife emphasizes the need to use insecticide treated nets (ITNs) every night to avoid being bitten by mosquitoes.

The midwife informed Dede about the next ANC visit. Dede planned to go to her mother's home for 6 weeks. The midwife and Dede agreed that the next visit will be six weeks on, or earlier if Dede experiences danger signs.

## Questions for discussion

1. Is it necessary for the midwife to fill out information about Dede's visit in any register or individual record forms? Why or why not?

2.
   a. How would the midwife benefit by maintaining information about Dede?
   b. How would Dede benefit?
   c. What is the benefit to the district health management team?

1. Identify all the information that the midwife should record in the maternal health record book and ANC register

## Answers to questions:

1.
   a. Yes
   b. For continuity of care
   c. For record purposes and research
   d. To monitor the effectiveness of the programme
   e. Planning

2.
   a. Midwife

      - For continuity of care and the provision of quality of care
      - Monitoring of resources and data
      - To have a baseline for reference during subsequent visits

   b. Dede

      - For continuity of care and the provision of quality of care

   c. DHMT

      DHMT will have an updated data for planning and policy formulation Recognition of adverse events that may be due to anti-malarial medication

3 The midwife should identify and record the following;

   - Blood pressure

      a. Pulse
      b. Colour of conjuctiva etc.

c. Weight
d. Height
e. Size of uterus
f. Haemoglobin level
g. Sickling
h. Urine for albumen
i. Tetanus toxoid immunization
j. Iron supplementation
k. SP given

## EXERCISE: 8. 1

## COMPLETING THE VARIOUS FORMS

### Objective:

To practice the completion of the ANC Clinic Report Form, Maternal (Delivery) Report Form and the Addendum to Midwifery monthly Returns Form; and calculate the indicators.

### Materials required

ANC registers
Delivery book
Maternal (Delivery) Report Form
ANC clinic report Form
Addendum to Midwifery monthly Returns Form

**Instructions**

Make ANC registers and Delivery books available to participants. Let them summarize at least two months records into ANC Clinic Report Form and Maternal (Delivery) Report Form respectively. Then let them use the information available to complete the Addendum to Midwifery monthly Returns Form and calculate the Output indicators, Outcome indicators and impact indicators.

ANSWER:
NO ANSWERS;
PARTICIPANTS SHOULD PRACTICE FILLING FORMS

# CASE STUDY 9.1

## REPORTING ADVERSE EVENTS

Instructions
Ask group members to read and analyse this case study individually. When the others in their group have finished reading it, they should answer the questions. When all groups have finished, the case study will be discussed and answer each group developed.

### Scenario

Ama Mansa, 35 years old, reported at the antenatal clinic two days after having received SP for IPT 1 at 20 weeks gestation. She complained of itching of the skin and feeling unwell.

### Question 1.

After providing the appropriate care, how would you report this event?

### Answer:

1. Fill an adverse event form
2. Send a copy to the highest authority in the facility

### Question 2.

How will the highest authority proceed?

### Answer:

Will send report to the RHMT and NCPv [The National Centre for Pharmacovigilance, Food and Drugs Board, Box CT 2783,Cantonment Accra, Ghana office line: 021-233200//235100; Mobile no; 0244310297 Fax: 229794 e-mail; drug safety@fdbghana.gov.gh] immediately or within 7 calendar days or 28 days depending on the severity of the event.

## APPENDIX E:

### PRE-TEST - MALARIA IN PREGNANCY IN GHANA

***(RUE OR FALSE (Circle the correct answer)***

1. Malaria is not a disease caused by a group of parasites called plasmodium.

   True **False**

2. Out of the four types of plasmodium that affect humans, only one is of importance in Africa.

   **True** False

3. The female anopheles mosquitoes spread the malaria parasite.

   **True** False

4. Women in their first and second pregnancies are never at risk of malaria.

   True **False**

5. Pregnant women are twice more likely to become infected with malaria than non-pregnant women.

   **True** False

6. Malaria infection in a pregnant woman increases her risk of spontaneous abortion, low birth weight and maternal anaemia.

   **True** False

7. The HIV/AIDS infected woman can infect her newborn during breastfeeding.

   **True** False

8. Contributing to the reduction of low birth weight among pregnant women attending ANC clinics is not one of the objectives for controlling malaria in pregnancy.

   True **False**

9. De-worming is not one of the components of the strategy in controlling malaria in pregnancy.

   True **False**

10. There are three main approaches of controlling malaria during pregnancy.

    **True** False

11. In focused ANC it is believed that more visits results in better care for pregnant women.

    True **False**

12. Prevention of disease and complications of Malaria is one of the goals of ANC.

    **True** False

***ONE IN FIVE (Tick the appropriate answer)***

## FOCUSED ANTENATAL/ IPT

1. IPT is given to pregnant women primarily to reduce

   A. Anaemia
   B. Malaria
   C. **Placental parasitaemia**
   D. Still births

2. One of the goals of focused ANC is to;

   A. Have all pregnant women examined
   B. Take care of all pregnant women
   C. **Preparation for birth and possible complications**
   D. Give SP to the pregnant woman

3. The following are skills needed when counseling a pregnant woman except

   A. Listening skills
   B. **Being very sympathetic**
   C. Questioning skills
   D. Non-verbal cues

4. The following are goals of ANC except;

   A. Detection and prevention of complications that might affect a woman's pregnancy.
   B. Counseling and health promotion to encourage good health throughout pregnancy and to increase a woman's ability to identify possible problems
   C. **Check the gestational age of the foetus**
   D. Preparation for birth and possible complications

5. Intermittent Preventive Treatment involve the following except

   A. The use of anti-malarial
   B. Given as Direct Observed Treatment
   C. Given in treatment doses after quickening
   D. **Administration during an episode of malaria in pregnancy**

6. The target group for IPT for pregnant women is except

   A. Those infected with HIV
   B. Adolescents and youth (13-24 years)
   C. Sickle cell persons who are pregnant
   D. **Those with hypertension**

7. These are strategies for IPT except

   A. Creating awareness
   B. Equip health facilities/staff
   C. Assess the efficacy of the drug including side effects
   D. **Treat all side effects in the hospital**

8. IPT will be integrated with the following package of interventions within the safe motherhood program except

   A. **Health education**
   B. De-worming
   C. ITN use
   D. Case management

9. SP is the drug of choice for IPT because of the following except

   A. Low resistance
   B. **It is being used in nearby countries**
   C. Has high compliance
   D. Good safety profile in pregnancy

## CASE MANAGEMENT

10. The cardinal sign in the diagnosis of malaria is...

    A. Rigor
    B. Bitterness in the mouth
    C. **Fever**
    D. Nausea and vomiting

11. One of the following is not a sign/symptom of uncomplicated malaria

    A. Fever
    B. **Jaundice**
    C. Headache
    D. Shivering/rigors

12. These are other causes of fever during pregnancy except

    A. Bladder or kidney infections
    B. Pneumonia
    C. Typhoid
    D. **Pre-eclampsia**

### *(Ques. 13 - 16) Match column A and column B*

| COLUMN A | | COLUMN B | |
|---|---|---|---|
| NO. | COMPLAINTS | ANSWER | HISTORY/PHYSICAL |
| 13 | Fever | A | Yellow eyes (jaundice) |
| 14 | Weakness and dizziness | B | Body temperature 38*C or above |
| 15 | Headaches | C | Blood pressure 120/80 mm hg (excluding pregnancy induced hypertension); no history of migraines |
| 16 | Very yellow urine | D | Pale inner eyelids/tongue/hands; breathlessness, tiredness (anaemia) |

13. A
**B**
C
D
E

14. A
B
C
**D**
E

15. A
B
**C**
D
E

16. **A**
B
C
D
E

17. Which one is not a sign/symptom of severe malaria?

A. **Oedema**
B. Dark coloured-urine
C. Drowsiness or coma
D. Temperature over 39*C

18. One of the following is not required at the district level (DHMT)

A. **To procure and distribute SP drugs**
B. Train staff
C. Provide technical support to facilities
D. Treatment/referral of complications to next level