 

**Prevention and Control of Malaria in Pregnancy**

Facilitator’s Guide

Fourth Edition, 2021

Jhpiego is an international, nonprofit health organization affiliated with Johns Hopkins University. For more than 40 years, Jhpiego has empowered frontline health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of health care services for women and their families. By putting evidence-based health innovations into everyday practice, Jhpiego works to break down barriers to high-quality health care for the world’s most vulnerable populations.

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# Abbreviations

ACT artemisinin-based combination therapy ANC antenatal care

COVID-19 corona virus disease, the illness caused by SARS-CoV-2

EDD estimated date of delivery

FHR fetal heart rate

IPT intermittent preventive treatment

IPTp intermittent preventive treatment of malaria in pregnancy IRS indoor residual spraying

ITN insecticide-treated net

LLIN long-lasting insecticide-treated net LMP last menstrual period

MIP malaria in pregnancy

PMI President’s Malaria Initiative

PMTCT prevention of mother-to-child transmission (of HIV) RBM Roll Back Malaria (World Health Organization) RDT rapid diagnostic test

SP sulfadoxine-pyrimethamine

WHO World Health Organization

# Introduction

## Workshop Overview

This workshop will be conducted based on the assumption that people participate in training because they:

* Are interested in the topic.
* Wish to improve their knowledge or skills and thus their job performance.
* Want to be actively involved in workshop activities.

For this reason, the workshop materials focus on the learner. The facilitator and the learner use a similar set of learning materials. The facilitator works with learners as an expert on the workshop topic and guides the learning activities.

## Learning Approaches

**Mastery learning:** By the end of the course, 100% of those trained will have mastered the desired competencies and be able to demonstrate the desired performance.

### Adult learning principles:

* Training builds on the learner’s abilities and is designed or revised to recognize the learner’s experience and expertise.
* Training is designed and continuously revised to ensure that it is efficient, effective, and relevant.
* Training actively involves learners in setting their learning goals and assessing their progress.

**Apprenticeship:** Cognitive apprenticeship is a process that focuses on making complex skills easy for a learner to observe and learn. In the cognitive apprenticeship process:

* The mentor (or trainer) demonstrates steps and models behaviors for the apprentice (or learner).
* The mentor explains his or her decisions and thought processes while working.
* The apprentice (learner) practices alongside the mentor, getting continual mentoring and coaching.

Over time, as the apprentice (learner) becomes more competent, he or she performs more and more independently.

**Humanism:** The humanistic approach reduces learner stress and protects the safety and dignity of the learners and clients involved in the learning process. The approach involves practicing and mastering clinical services in simulation with anatomic models, if appropriate, before working with clients to reduce the risk of client harm or discomfort. Learners gain confidence by practicing in a safe environment.

**Modular:** A modular approach allows instructors and learners to focus on one topic at a time, build on their current knowledge, and move to the next course with more confidence and competence.

## Responsibilities of the Facilitator

Remember the six Ps: Proper prior planning prevents poor performance.

Facilitators should:

* Use participatory learning methods.
* Be proficient in performing the related clinical tasks and skill(s) according to the validation checklist(s).
* Use effective facilitation skills.

**Note:** Each facilitator is responsible for ensuring that his or her knowledge and skills are up to date, and his or her behaviors are appropriate.

# Instructions for Facilitators

## Before the Course Begins

Communicate with cofacilitators and program staff to discuss and assign the following administrative responsibilities:

**Assign** facilitation of teaching sessions, demonstrations, return demonstrations, and clinical simulations. (Each facilitator will be responsible for ensuring that all needed resources, equipment, and supplies are available for any sessions assigned to him or her.)

**Obtain** all supplies and equipment (flip charts, markers, projector for presentations, simulation models and materials, etc.) needed for the course. If the facilitator delegates this task, he or she should double-check that the materials are indeed present and in working order before the course begins.

**Meet** with managers and health workers at the clinical practice site, if clinical practice is included, to review learning goals, required clinical resources, and expectations of staff.

**Prepare or adapt** lesson plans to the context. Preparation of what and how to teach is as important as the actual teaching. Although it takes time, careful preparation will help you feel confident as a facilitator. Before the course, reading the lesson plans will help you discover what you know and can do, as well as what you might have forgotten or need to “refresh.” If the assigned instructor is not present, the substitute facilitator will have the instructor’s prepared lesson plan to use as a guide. Using lesson plans helps the facilitator organize all of the details of each session and remember the key points to highlight.

**Read** the reference manual thoroughly to be sure that it agrees with current policies and practice guidelines in the country where it is being used. The manual is based on globally accepted, evidence-based information that countries should strive to adopt in their policies/guidelines.

However, if these policies and guidelines have not yet been adopted in a particular setting, modifications to the training may be necessary. Consult national malaria and reproductive health staff, and other trainers as needed, to resolve discrepancies with national policies. Flag the discrepancies so that they may be referenced easily during the training.

**Review** the facilitator’s guide for other preparation details. For each cofacilitator, make a copy of the following:

* Facilitator’s guide
* Learner’s guide
* Presentation graphics (slideshow presentations)
* Reference manual, job aids, and other materials

For each learner, make a copy of the following:

* Learner’s guide
* Reference manual or other materials
* Pre- and post-course knowledge assessment forms (at the time of the assessment)

Preparing for the Session

**Read** the content of each session thoroughly.

**Review** any learning activities (e.g., illustrated presentations and case studies) and checklists needed for the session.

**Review** the suggested lesson plan, learning objectives, and presentation graphics for the session. Emphasize the parts of the lesson plan that are relevant to the learners’ needs. This will depend on the experience, skills, and knowledge level of the learners—as a group and as individuals—and how much time is available.

**Plan** the amount of time needed for each learning activity. The course schedule and lesson plans are included as a reference or guide; they can be tailored as long as objectives are met.

**Set up** the classroom in a way that encourages interactive learning (e.g., chairs may be arranged in a U-shape) the day before the course or earlier. Place the flip charts where needed, and be sure to have enough markers for everyone in the group. The room and all facilitators should be ready when learners arrive.

During the Session

**Encourage** active participation and use learners as co-facilitators as much as possible without being disruptive to the course.

**Administer** the pre-course knowledge assessment. Before beginning the course, have learners complete the pre-course knowledge assessment. The objectives of this assessment are to:

* Assess what the learner knows about the course topics,
* Identify topics that may need additional emphasis during the course,
* Alert the learner to the content that will be presented in the course, and
* Assist in evaluating this course and better plan for future courses.

**Make use** of the lesson plans:

* During the course, using lesson plans will help you organize the details of each lesson.

Reflect on Each Session

**Debrief** each day. **Ask learners** to write one or two bullets in response to each of the following questions:

* List at least two new pieces of information that you learned today.
* Which sessions were most valuable?
* What could be improved about today’s activities?

Review the daily evaluation forms with the other facilitators and program staff to determine which sessions went well and which might need modification or need to be taught using a different approach the next day or in the future.

* Document findings in the evaluation section of the lesson plan.

**Assign** action items.

* Modify lesson plans, activities, and presentation graphics as needed.

**Investigate** topics.

* Address topics that were brought up but not adequately covered during the session to determine when they can be reviewed more thoroughly.
* Research the answers to questions that facilitators were not able to answer during the sessions, using written local and global resources, as well as Internet sources. Share the answers with learners in later sessions, as appropriate.

Use this review as an important means of assessing learner progress and the effectiveness of the training methods used.

Assessment of Learners

Checklists and knowledge assessments should not be modified. They have been developed and validated according to evidence-based global guidelines.

During a course, continually develop and assess learners’ knowledge, skills, and behavior (as underlying attitudes are difficult to assess) using questions, exercises, and activities. Assessment results are used to provide feedback to learners to help them learn more and make progress toward the course objectives. Results are also used in evaluating the learner and deciding about taking the next step. For example, checklists are designed to help the facilitator decide if a learner is ready to work with clients in a clinical setting or if the learner has achieved competency in the desired performance and may be qualified.

Administer the Postworkshop Knowledge Assessment

After learners complete the lesson objectives (the knowledge update component of the workshop), they will complete a final knowledge assessment. This should be done before moving into clinical practice, or at the very end of the workshop if there is no clinical practice. The objectives of this written assessment are to:

* Assess what knowledge the learner has gained about the workshop topics.
* Identify topics that may need additional emphasis during the clinical practicum or follow-up.

Use Practical Assessments

The learners will use the provided checklists during practice, and the facilitator will later use the checklists to assess each learner’s competence in a simulated setting. During a workshop, facilitators typically use:

* A checklist for practice and evaluation of performance
* Pre- and postworkshop knowledge assessments to document learners’ improvement in knowledge

Throughout the learning experience, facilitators and learners keep track of learners’ progress toward competence in the clinical services being taught by using the checklists in the learner’s guide. This is

a shared activity, just as developing competency is a shared responsibility. Being able to use the checklist to evaluate oneself and others is useful in the transfer of learning.

Confirm Postworkshop Action Plans

The training process is not complete until a learner has demonstrated mastery of all workshop content. Mastery means that the learner is consistently able to demonstrate performance that is safe and effective. The time it takes to achieve competency depends on a variety of factors, including the opportunity to practice, the quality of coaching in the clinical environment, the learner’s past clinical background, and attitudes.

The facilitator must ensure that there is a plan in place for follow-up practice in a recognized clinical facility until mastery of all competencies has been achieved.

When learners can correctly perform the newly acquired skills in a simulated setting according to the checklist, they can then practice providing the service with actual clients in a clinical setting. Only by practicing with clients in a clinical setting do learners achieve competency; proficiency will come later, after they have delivered the service in the workplace over time.

# Workshop Syllabus

## Workshop Description

The Prevention and Control of Malaria in Pregnancy workshop is intended for skilled providers, including midwives, nurses, clinical officers, medical assistants, etc., who provide antenatal care (ANC). The workshop provides learners with the knowledge and skills needed to prevent, recognize, and treat malaria in pregnancy (MIP) as they provide ANC services.

Since the goal is to deliver these services as part of routine ANC, this guide recommends ANC as the main platform for the integration of evidence-based care for pregnant women. The 2016 WHO recommendations on ANC say: “ANC provides a platform for important health care functions, including health promotion, screening and diagnosis, and disease prevention. It has been established that by implementing timely and appropriate evidence-based practices, ANC can save lives.

Crucially, ANC also provides the opportunity to communicate with and support women, families and communities at a critical time in the course of a woman’s life” (WHO 2016). The updated ANC recommendations support the WHO 2012 policy recommendation for intermittent preventive treatment of malaria in pregnancy with sulfadoxine-pyrimethamine (IPTp-SP) (WHO 2013b).

Workshops may be organized to include one or more days of guided clinical observation and practice. In such cases, the facilitator will provide information regarding that component separately.

## Workshop Goals

* Prepare skilled providers to educate and counsel women about how to prevent malaria in pregnancy.
* Prepare skilled providers to administer appropriate IPTp-SP to pregnant women.
* Provide skilled providers with the knowledge necessary to recognize and treat uncomplicated malaria in pregnancy.
* Provide skilled providers with the knowledge necessary to recognize severe malaria in pregnant women, deliver a loading dose of the appropriate medication, and refer the women to a higher level of care.

## Learning Objectives

By the end of this workshop, the learner will be able to:

1. Define ANC and list the main goals of ANC.
2. Discuss adaptations to ANC necessitated by the COVID-19 pandemic.
3. Discuss the timing of ANC contacts.
4. Describe the essential elements of a birth preparedness/complication readiness plan.
5. Describe health system factors to support recordkeeping for ANC.
6. Define malaria and describe its transmission.
7. Describe the effects of malaria globally and in his or her own country.
8. Compare the effects of malaria in areas of stable and unstable transmission.
9. List the effects of malaria on pregnant women and their babies.
10. Describe the effects of malaria on pregnant women living with HIV.
11. Discuss integration of MIP and prevention of mother-to-child transmission (PMTCT) services into ANC.
12. Describe the three-pronged approach to malaria prevention and control according to the WHO MIP strategy (WHO 2012b).
13. List the elements of counseling women about the use of insecticide-treated nets (ITNs)—more specifically, long-lasting insecticide-treated nets (LLINs)—for IPTp and other means of malaria prevention.
14. Describe the use of SP for IPTp, including dosage, timing, and contraindications.
15. Discuss indoor residual spraying (IRS) and other ways to prevent malaria.
16. Assist the pregnant woman to make a birth preparedness and complication readiness plan.
17. Explain why self-diagnosis/treatment may lead to treatment failure or recurring infection.
18. Describe the types of diagnostic tests available for malaria, including their advantages and disadvantages.
19. Identify causes of fever during pregnancy other than malaria.
20. List the signs and symptoms of uncomplicated and severe MIP.
21. Describe the treatment for uncomplicated and severe MIP.
22. Explain the steps to appropriately refer a pregnant woman who has severe malaria.
23. If the workshop includes a clinical component, practice conducting initial and follow-up ANC contacts; targeting prevention, diagnosis, and treatment of uncomplicated malaria; and diagnosis, stabilization, loading dose, and referral for severe malaria.

## Training/Learning Methods

* Illustrated interactive presentations
* Large- and small-group discussions
* Case studies
* Role-plays
* Group activities
* Clinical practice (optional)

## Learning Materials

The learning materials for this workshop include:

* **Reference manual** for learners and facilitators: *Prevention and Control of Malaria in Pregnancy*
* **Learner’s guide** containing the course syllabus, schedule, knowledge assessments, case studies, role-plays, and checklists
* **Facilitator’s guide** containing the content of the learner’s guide, course outline, answer keys, and guidelines for conducting the workshop

### Presentation graphics:

* + Module One: Antenatal Care
  + Module Two: Transmission of Malaria
  + Module Three: Prevention of Malaria
  + Module Four: Diagnosis and Treatment of Malaria

## Learner Selection Criteria

Workshop learners must be practicing health care providers or administrators of health care facilities that provide ANC services.

## Workshop Duration

The workshop duration is two days. The optional clinical observation and practice may last for one or more days, depending on the needs of the learners and availability of the clinical facility/facilities.

## Suggested Workshop Composition

* 20 learners
* One or two facilitators (up to four facilitators if a clinical component is included)

# Sample Workshop Schedule

|  |  |  |
| --- | --- | --- |
| **Prevention and Control of Malaria in Pregnancy Workshop** | | |
| **Day 1** | **Day 2** | **Days 3 and 4 (optional)** |
| AM (4 hours) | AM (4 hours)   * Review of agenda * Discussion: initial and follow- up antenatal care (ANC) contacts   **Module Four: Diagnosis and Treatment of Malaria**   * Illustrated presentation * Discussion * Brainstorming activity   Malaria treatment:   * Illustrated presentation * Discussion * Case study   Tea Break  Malaria diagnosis and treatment:   * Skills practice * Caring for a woman with uncomplicated malaria | AM (4 hours) |
| * Welcome, introductions, norms, and learners’ expectations * Workshop overview and objectives * Review of workshop materials * Preworkshop knowledge assessment * Identification of individual and group learning needs | Clinical observation and practice:   * Preclinical meeting * Guided clinical activities and provision of ANC to clients |
| Tea Break |  |
| **Module One: Antenatal Care**   * Illustrated presentation, brainstorming, discussion * Role-play * Demonstration and skills practice, including recordkeeping (recordkeeping exercise) |  |
| PM (3 hours) | PM (3 hours)  Referring a woman with severe malaria:   * Illustrated presentation * Discussion * Clinical drill   Implications for practice:   * Discussion * Preparation of action plans * Postworkshop knowledge assessment * Workshop evaluation (if no clinical component) * Closing (if no clinical component) | PM (2 hours) |
| **Module Two: Malaria Transmission**   * Illustrated presentation * Group discussion   **Module Three: Malaria Prevention**  ITNs:   * Illustrated presentation * Group activity | Clinical conference:   * Review experiences of each group * Recordkeeping and referral notes with client transfer (severe malaria) * Workshop evaluation * Closing |
| Tea Break |  |
| IPTp-SP:   * Illustrated presentation * Case study |  |
| Birth preparedness and complication readiness:   * Case study |  |
| Review of day’s activities |  |

|  |  |  |
| --- | --- | --- |
| **Prevention and Control of Malaria in Pregnancy Workshop** | | |
| **Day 1** | **Day 2** | **Days 3 and 4 (optional)** |
| **Assignments:**  In reference manual review Table 2, Components of ANC contacts (for pregnant women in moderate- to high- transmission areas), and compare content of initial and follow-up ANC contacts.  Review checklists for first and follow up ANC contacts. |  |  |

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| --- | --- | --- | --- |
| **Workshop Outline: Prevention and Control of Malaria in Pregnancy** | | | |
| **Time** | **Objectives/Activities** | **Learning Methods/Materials** | **Resources** |
| **Day 1, AM (240 minutes)** | | | |
| 20 minutes | **Activity**: Welcome, introductions, norms, learners’ expectations | **Welcome** by the representatives of the organization(s) sponsoring the workshop.  Learners introduce themselves, giving their names, institutions, and positions, and briefly stating what they hope to gain from the workshop. |  |
| 15 minutes | **Activity**: Introduction: workshop overview. Provide a summary of the workshop (goals, objectives, schedule). | **Review** the workshop syllabus and schedule. | **Learner’s guide**:  Workshop syllabus and schedule |
| 15 minutes | **Activity**: Review workshop materials. | **Distribute, review, and discuss** materials used in the workshop.  **Review** the table of contents of *Prevention and Control of Malaria in Pregnancy* (reference manual). | **Reference manual Learner’s guide** |
| 15 minutes | **Activity**: Assess learners’ preworkshop knowledge. | **Complete preworkshop knowledge assessment.** | **Learner’s guide**: Preworkshop Knowledge Assessment |
| 20 minutes | **Activity**: Identify individual and group learning needs. | **Grade knowledge assessments as a group**; the facilitator fills in matrix to identify learning needs. |  |
| 15 minutes | **Break** | | |
| 45 minutes | **Module One**: Antenatal Care (ANC)  **Objective**: Define ANC and list the main goals of ANC.  Objective: Discuss adaptations to ANC necessitated by the COVID-19 pandemic.  **Objective**: Discuss the timing of ANC contacts. **Objective**: Describe the essential elements of birth preparedness and complication readiness plans.  **Objective**: Describe health system factors to support recordkeeping for ANC.  **Activity**: Brainstorming Activity for ANC  **Activity**: Discussion Guide for ANC | **Illustrated presentation Brainstorming activity Discussion guide** | **Reference manual**: Pages 5–20 **Presentation graphics**: Slides 1–43 **Facilitator’s guide**:  Brainstorming Activity for Antenatal Care and Discussion Guide for Antenatal Care |
| 30 minutes |  | **Role-Play for Antenatal Care** | **Learner’s guide**: Role-Play for ANC |

|  |  |  |  |
| --- | --- | --- | --- |
| **Workshop Outline: Prevention and Control of Malaria in Pregnancy** | | | |
| **Time** | **Objectives/Activities** | **Learning Methods/Materials** | **Resources** |
| 45 minutes | **Activity:** Conduct ANC contact.  **Activity:** Demonstration and skills practice using the checklists for initial and return ANC contacts | **Illustrated presentation**  **Demonstration**: Facilitator demonstrates how to conduct an initial ANC contact using good interpersonal skills, with a learner playing the role of the pregnant woman. Learners follow the demonstration using the Checklist for the Initial ANC Contact.  **Skills practice**: Learners divide into teams of three:   * Skilled provider * Pregnant woman * Observer   “Provider” conducts an initial ANC contact following the steps on the checklist. “Observer” assesses performance using the Checklist for Initial ANC Contact. Learners change roles until each has practiced at least one initial and one return ANC contact. | **Learner’s guide**:  Checklist for Initial Focused Antenatal Care Contact |
| 20 minutes | **Activity**: Recordkeeping exercise | **Group activity** | **Learner’s guide**:  Exercise for Recordkeeping |
| **LUNCH (60 minutes)** | | | |
| **Day 1, PM (180 minutes)** | | | |
| 60 minutes | **Module Two:** Transmission of Malaria **Objective:** Define malaria and how it is transmitted.  **Objective:** Describe the effects of malaria in Africa, in general and in learners’ own country. **Objective:** Compare the effects of malaria in areas of stable and unstable transmission.  **Objective:** List the effects of malaria on pregnant women and their babies.  **Objective:** Describe the effects of malaria on pregnant women living with HIV.  **Activity:** Group discussion about malaria transmission | **Illustrated presentation Group discussion** | **Reference manual**:  Pages 21–32  **Presentation graphics**: Slides 44– 69  **Facilitator’s guide**:  Group Discussion for Malaria Transmission |

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| --- | --- | --- | --- |
| **Workshop Outline: Prevention and Control of Malaria in Pregnancy** | | | |
| **Time** | **Objectives/Activities** | **Learning Methods/Materials** | **Resources** |
| 45 minutes | **Module Three**: Prevention of Malaria **Objective**: Describe the three-pronged approach to malaria prevention and control according to the WHO’s current malaria in pregnancy strategy.  **Objective**: List the elements of counseling women about the use of insecticide-treated nets (ITNs)—more specifically, long-lasting insecticide-treated nets*—*or intermittent preventive treatment of malaria in pregnancy (IPTp) and other means of malaria prevention. | **Illustrated presentation Group activity** | **Reference manual**:  Pages 33–42  **Presentation graphics**: Slides 70– 85  **Facilitator’s guide**: Activity Guide for Malaria Prevention Session |
| 15 minutes | **Break** | | |
| 30 minutes | Continuation of malaria prevention module **Objective:** Describe the use of sulfadoxine- pyrimethamine for IPTp, including dosage, timing, and contraindications.  **Objective:** Discuss indoor residual spraying and other ways to prevent malaria.  **Activity:** Group discussion on malaria prevention  **Activity:** Role-play about use of ITNs  **Activity:** Case Study 1 | **Illustrated presentation Group discussion**  **Role-play about use of ITNs**  **Case Study 1:** Conducting a ANC Contact at 4 Months | **Reference manual**:  Pages 33–42  **Presentation graphics**: Slides 86– 92  **Learner’s guide**:  Case Study 1: Conducting ANC Contact at 4 Months |
| 20 minutes | **Objective:** Assist the pregnant woman to prepare a birth preparedness and complication readiness plan.  **Activities:** Case Study 2 | **Case Study 2:** Conducting a ANC Contact at 13 Weeks | **Learner’s guide**:  Case Study 2: Conducting ANC Contact at 13 Weeks |
| 10 minutes | **Activity:** Review day’s activities. | **Facilitator reviews day’s activities and answers any questions.** |  |
| **Assignment**: Read reference manual. Compare learning guides for conducting an initial ANC contact and follow-up ANC contacts. | | | |

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| --- | --- | --- | --- |
| **Workshop Outline: Prevention and Control of Malaria in Pregnancy** | | | |
| **Time** | **Objectives/Activities** | **Learning Methods/Materials** | **Resources** |
| **Day 2, AM (240 minutes)** | | | |
| 10 minutes | **Activity:** Review day’s agenda. | **Facilitator reviews day’s agenda and answers any questions.** |  |
| 15 minutes |  |  | **Facilitator’s guide**:  Case Study 3: Treating a Client Who Has Malaria |
| 90 minutes | **Module Four:** Diagnosis and Treatment of Malaria  **Objective:** Explain why self- diagnosis/treatment may lead to treatment failure or recurring infection.  **Objective:** Describe the types of diagnostic tests available for malaria, including their advantages and disadvantages.  **Objective:** Identify other causes of fever during pregnancy.  **Objective:** List the signs and symptoms of uncomplicated and severe malaria in pregnancy**.**  **Activity:** Brainstorming about malaria diagnosis  **Activity:** Discuss Case Study 3: Treating a Client Who Has Malaria | **Illustrated presentation Brainstorming discussion Brainstorming activity**  **Case Study 3:** Treating a Client Who Has Malaria | **Reference manual**:  Pages 43–58  **Presentation graphics**: Slides 93– 138  **Facilitator’s guide**:  Brainstorming Activity for Malaria Diagnosis  **Learner’s guide:**  Case Study 3: Treating a Client Who Has Malaria  Checklist for treatment of uncomplicated malaria and referral for severe malaria |
| 15 minutes | **Break** | | |

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| **Workshop Outline: Prevention and Control of Malaria in Pregnancy** | | | |
| **Time** | **Objectives/Activities** | **Learning Methods/Materials** | **Resources** |
| 110 minutes | **Activity:** Conduct an ANC contact for a woman with signs and symptoms of uncomplicated malaria using the Checklist for Treatment of Uncomplicated Malaria and Referral for Severe Malaria.  **Activity:** Group activity about malaria diagnosis and treatment | **Illustrated presentation**  **Group activity** on malaria diagnosis and treatment  **Skills practice:** Learners divide into teams of three:   * Skilled provider * Pregnant woman * Observer   “Provider” conducts an ANC contact focusing on history and physical examination for signs and symptoms of uncomplicated malaria and its treatment, following the steps in the Checklist for Treatment of Uncomplicated Malaria and Referral for Severe Malaria. “Observer” assesses performance using the checklist.  Learners change roles until each has practiced at least one contact for a woman with uncomplicated malaria. | **Facilitator’s guide:**  Group Activity for Malaria Diagnosis and Treatment **Learner’s guide:**  Checklist for Treatment of Uncomplicated Malaria and Referral for Severe Malaria |
| **LUNCH (60 minutes)** | | | |
| **Day 2, PM (175 minutes)** | | | |
| 75 minutes | **Objective:** Explain the steps to take to refer a pregnant woman who has severe malaria.  **Activity:** Clinical drill | **Illustrated presentation Discussion**  **Clinical drill** | **Reference manual:**  Pages 52–57  **Presentation graphics:** Slides 139–142  **Facilitator’s guide:** Clinical Drill for Severe Malaria |
| 30 minutes | **Activity:** Discuss implications for practice and develop action plans. | **Group discussion** | **Facilitator’s guide:** Group Discussion: Implications for Practice |
| 35 minutes | **Activity:** Assess learners’ postworkshop knowledge. | **Complete postworkshop questionnaire.**  **Facilitator leads review and discussion of questionnaire answers.** | **Learner’s guide**: Postworkshop Knowledge Assessment |
| 15 minutes | **Activity:** Evaluate workshop accomplishments with respect to objectives. | **Discussion** |  |
| 20 minutes | **Closing** (if clinical practice takes place evaluation and closing will occur on the last day) | **Present learners with certificates of attendance and close the workshop.** | **Facilitator’s guide:** Sample Certificate of Attendance |

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| **Workshop Outline: Prevention and Control of Malaria in Pregnancy** | | | |
| **Time** | **Objectives/Activities** | **Learning Methods** | **Resources** |
| **Optional for Clinical Observation and Practice** | | | |
| **Days 3 and 4, AM (240 minutes**) | | | |
| 60 minutes | **Activity:** Orient learners to clinical observation and practice at facility (preclinical meeting). | **Tour of Clinical Facilities**: Conduct a tour of the facility where learners will observe and practice ANC contacts. The tour should include brief presentations by clinic staff (clinic managers, counselors, and health care providers) on clinic practices for the prevention and treatment of uncomplicated and severe malaria. | |
| 180 minutes | **Objective:** Practice conducting initial and follow-up ANC contacts, targeting prevention, diagnosis, and treatment of uncomplicated malaria, and diagnosis, stabilization, loading dose, and referral for severe malaria. | **Guided Clinical Activities**  If appropriate, divide learners into teams of two or three. One learner will conduct an ANC contact, focusing on prevention, diagnosis, and treatment of uncomplicated malaria. The other learner(s) will use the checklists to follow the contact and assess provider’s performance. Learners change roles until each has conducted an ANC contact and counseled the woman about the prevention and treatment of uncomplicated malaria. |  |
| **Lunch (60 minutes)** | | | |
| **Days 3 and 4, PM (200 minutes)** | | | |
| 90 minutes | **Activity:** Review selected cases from morning clinic session. | **Clinical Conference:** If there were no cases of uncomplicated or severe malaria seen in the morning session, facilitator should obtain copies of client records (with the woman’s name and identifying information deleted) to use for discussion. Review the client's presenting symptoms, diagnosis, treatment provided, and referral, if any. Compare with content in malaria in pregnancy reference manual. |  |
| 90 minutes | **Activity:** Describe the importance of keeping complete and accurate ANC records. | **Recordkeeping exercise**, including writing referral notes for transferring patients with severe malaria |  |
| 20 minutes | **Closing** (if clinical practice takes place on Day 4) | **Present learners with certificates of attendance and close the workshop.** | **Facilitator’s guide:**  Sample Certificate of Attendance |

# Learning Methods

## Illustrated Interactive Presentations

Interactive presentations should be used to provide information about specific topics. The content should be based on, but not necessarily limited to, the information in *Prevention and Control of Malaria in Pregnancy* (the reference manual).

Two important activities that should be undertaken to prepare for each interactive presentation were mentioned above and are listed again here:

* First, the learners should be directed to read relevant sections of the reference manual (and other resource materials, if used) before each session.
* Second, the facilitator should prepare for the sessions by becoming thoroughly familiar with the content.

Presentation graphics are provided for the facilitator to use when giving an illustrated interactive presentation. The content of these presentation graphics is drawn from *Prevention and Control of Malaria in Pregnancy* (the reference manual). Each set corresponds to one module.

The presentation graphics act as a guide for the facilitator during each session; they should not be read verbatim. Rather, the facilitator can use them to pose questions to learners and initiate discussion and brainstorming. Learners come with a wealth of knowledge and experience, and their active participation will lead to more interesting and informative sessions. Another strategy that encourages interaction is to stop at predetermined points to discuss issues and information of particular importance in the context of the learners’ country and experience with MIP.

## Case Studies

Case studies help learners practice clinical decision-making skills. For each case study, an answer key lists the expected responses. The facilitator should be thoroughly familiar with these responses before introducing the case studies. The key contains “likely” answers, but other answers provided by learners during the discussion may be equally acceptable. The technical content of the case studies is taken from *Prevention and Control of Malaria in Pregnancy* (the reference manual).

## Role-Plays

Role-plays help learners practice interpersonal communication skills. Each role-play requires the participation of two or three learners, with the other learners observing. Following completion of the role-play, the facilitator asks questions to guide the discussion.

## Skills Practice

This portion of the workshop focuses on observation and classroom practice of the skills needed to educate clients about malaria and to recognize, treat, and refer clients with malaria.

The checklists contain the key steps or tasks required to perform a skill or activity in a standardized way. They outline the correct steps and the sequence in which they should be performed (for skill acquisition), and measure progress in small steps as the learner gains confidence and skill (skill

competency). Once learners become confident in performing a skill during classroom practice, they can use the checklists to rate each other’s performance.

If the workshop includes clinical observation and practice sessions with clients, learners are grouped in teams of two or three. One learner acts as the skilled provider and carries out the ANC contact, while the other learner(s) observe and use the checklist to evaluate the provider’s performance.

During this phase, the facilitator is always present in the clinic and supervises at least one client encounter for each learner.

## Clinical Drills

Clinical drills provide learners with opportunities to observe and take part in an emergency rapid response system. Frequent drills help to ensure that each member of the emergency team knows his or her role and is able to respond quickly.

By the end of the workshop, learners should be able to conduct drills in their own facilities.

# Preworkshop Knowledge Assessment

The objective of the preworkshop knowledge assessment is to assist the facilitator and the learners by determining what the learners, individually and as a group, know about MIP. The assessment helps the facilitator identify topics that need additional emphasis during the workshop. The individual results help the learners focus on their learning needs and alert them to the content that will be presented in the workshop.

The relevant learning objectives are noted for each statement in the assessment.

**Instructions:** In the space provided, print a capital **T** if the statement is true or a capital **F** if the statement is false.

|  |  |  |
| --- | --- | --- |
|  | **T or F** |  |
| **Antenatal Care** | | |
| A minimum of eight antenatal contacts is advised for women who register for care in the first trimester of pregnancy. |  | Learning Objective 3 |
| When providing health education, first address the woman’s specific questions, problems, or concerns. |  | Learning Objective 4 |
| Recognizing early signs of problems or disease is an essential part of antenatal care contacts. |  | Learning Objective 1 |
| 4. ANC services must consider adaptations to ensure the safety of providers and clients during the COVID-19 pandemic. |  | Learning Objective 2 |
| **Malaria Transmission** | | |
| Flies can transmit malaria by landing on food eaten by pregnant women. |  | Learning Objective 6 |
| Malaria parasites can attack the placenta and interfere with its function, leading to poor growth of the fetus. |  | Learning Objective 9 |
| Women in their first pregnancy are at higher risk of developing complications of malaria in pregnancy, compared to women who have had more than two babies. |  | Learning Objective 10 |
| Pregnant women living with HIV have a higher risk of malaria infection than women who do not have HIV. |  | Learning Objective 10 |
| **Malaria Prevention** | | |
| Insecticide-treated nets reduce the number of mosquitoes in the house, both inside and outside the net. |  | Learning Objective 13 |
| Intermittent preventive treatment should be given to all eligible pregnant women, even if they have no symptoms of malaria. |  | Learning Objective 14 |
| The first dose of intermittent preventive treatment with sulfadoxine-pyrimethamine can be given at the beginning of the second trimester of pregnancy. |  | Learning Objective 14 |
| **Malaria Diagnosis and Treatment** | | |
| 12 Changes in behavior, such as drowsiness or confusion, could  be symptoms of severe malaria. |  | Learning Objective 20 |
| 13. Pregnant women diagnosed with malaria should never be  given artemisinin-based combination therapy. |  | Learning Objective 21 |

**Preworkshop Knowledge Assessment: Answer Key**

**Instructions:** In the space provided, print a capital **T** if the statement is true or a capital **F** if the statement is false.

|  |  |  |
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|  | **T or F** |  |
| **Antenatal Care** | | |
| WHO recommends a minimum of eight antenatal contacts for women who register for care in the first trimester of pregnancy. | **T** | Learning Objective 3 |
| When providing health education, first address the woman’s specific questions, problems, or concerns. | **T** | Learning Objective 4 |
| Recognizing early signs of problems or disease is an essential part of antenatal care contacts. | **T** | Learning Objective 1 |
| ANC services must consider adaptations to ensure the safety of providers and clients during the COVID-19 pandemic. | **T** | Learning Objective 2 |
| **Malaria Transmission** | | |
| Flies can transmit malaria by landing on food eaten by pregnant women. | **F** | Learning Objective 6 |
| Malaria parasites can attack the placenta and interfere with its function, leading to poor growth of the fetus. | **T** | Learning Objective 9 |
| Women in their first pregnancy are at higher risk of developing complications of malaria in pregnancy, compared to women who have had more than two babies. | **T** | Learning Objective 9 |
| Pregnant women living with HIV have a higher risk of malaria infection than women who do not have HIV. | **T** | Learning Objective 10 |
| **Malaria Prevention** | | |
| Insecticide-treated nets reduce the number of mosquitoes in the house, both inside and outside the net. | **T** | Learning Objective 13 |
| Intermittent preventive treatment should be given to all eligible pregnant women, even if they have no symptoms of malaria. | **T** | Learning Objective 14 |
| The first dose of intermittent preventive treatment with sulfadoxine-pyrimethamine can be given at the beginning of the second trimester of pregnancy. | **T** | Learning Objective 14 |
| **Malaria Diagnosis and Treatment** | | |
| Changes in behavior such as drowsiness or confusion could be symptoms of severe malaria. | **T** | Learning Objective 20 |
| 13. Pregnant women diagnosed with malaria should never be  given artemisinin-based combination therapy. | **F** | Learning Objective 21 |

# Module One: Antenatal Care

## Brainstorming Activity for ANC

### Time needed: 5–10 minutes

Ask learners to name practices performed routinely in antenatal clinics and list them on a flip chart. Discuss each of these practices to determine its contribution to improved outcomes for the mother and her newborn. Encourage learners to talk about how to eliminate unnecessary practices in their own settings to make more time for ANC and counseling about birth planning and malaria. Learners might include the following routine practices that are done for all women out of habit or tradition, regardless of gestational age or individual circumstances:

* Checking for edema of ankles or feet (it is normal for pregnant women to have dependent edema)
* Checking fetal position at every contact (should be checked only at 36 weeks and after)
* Performing a full physical exam or vaginal examination at every contact (when a woman has no complaints)

In addition, and as appropriate in specific settings, discuss adaptations necessitated by the COVID-19 pandemic to ensure that provision of care is safe for pregnant women and their families as well as those who care for them. Please see Reference Manual, p.18 - 22 for further information.

## Discussion Guide for ANC

### Time needed: 5–10 minutes

Have learners briefly discuss other factors affecting ANC services and attendance in their area or region. These may include cultural beliefs and other factors, such as:

* The status of women
* Marital status/age: Pregnancy may be shameful if a woman is not married or if she is an adolescent.
* Economy/economic status:
  + General economy of country/community
  + Economic well-being of family
  + Who controls finances and makes decisions in family/household
* General beliefs about pregnancy:
  + Pregnancy should not be revealed or discussed until it can no longer be “hidden.”
  + Pregnancy is a normal condition, so clinic contacts are not needed.
  + Men are reluctant to participate in contacts/counseling.
  + Antenatal care is only useful for receiving the ANC card (to receive free care at the time of birth).
* Beliefs/perceptions about health facility or providers:
  + Long waiting times/crowding
  + No audio and/or visual privacy
  + Cost of transport to facility/provider
  + Lack of confidence in facility/provider
  + Negative experiences of peers/other women
  + Negative personal experience with ANC and/or specific facility/provider
  + Preference for traditional providers
  + Religious beliefs: ANC clinics may not be open during certain days or times.

## Role-Play for ANC

Purpose

The role-play provides an opportunity for learners to understand the importance of individual counseling on health education and health promotion, using good interpersonal skills, and supporting/encouraging women to seek information.

Directions

Select two learners to perform the roles of a skilled provider and an ANC client. Give these learners a few minutes to prepare for the activity by reading the background information provided below.

The remaining learners, who will observe and discuss the role-play, also should read the background information.

Roles

**Skilled provider:** The provider is an experienced provider who has good interpersonal skills.

**ANC client:** Ngone, a 21-year-old woman, is pregnant for the first time. She is 28 weeks pregnant.

Situation

Ngone has come to the ANC clinic 5 days before her second antenatal appointment. She appears very anxious and explains that the midwife advised her to return if she had any concerns. She tells the provider that she has several questions about changes and discomforts in her body.

Ngone describes the symptoms of one or two common discomforts of pregnancy, such as constipation and low back pain. The provider takes a targeted history and performs a targeted physical exam to rule out conditions requiring care beyond the scope of basic ANC. The provider determines that Ngone has some common discomforts of pregnancy and gives her the information necessary to deal with her symptoms.

Points for Discussion

Discuss the importance of providing individual counseling for health education and health promotion to meet the needs of the client, using good interpersonal skills, and supporting and encouraging the woman. Reinforce the importance of describing danger signs and noting any discomforts or concerns on the antenatal record for follow-up at the next contact.

## Checklist for Initial ANC Contact

(For use by the learner for practice and by the facilitator to assess competency)

Place a “****” in case box if step/task is performed satisfactorily, an “**X**” if it is performed unsatisfactorily, or

**N/O** if not observed.

**Satisfactory**: Performs the step or task according to the standard procedure or guidelines. **Unsatisfactory**: Is unable to perform the step or task according to the standard procedure or guidelines. **Not Observed**: Step or task not performed by participant during evaluation by trainer.

Learner Date Observed

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| **Checklist for First ANC Contact**  **(Many of the following steps/tasks can be performed simultaneously.)** | | | | | |
| **Step/Task** | **Cases** | | | | |
| **PREPARATION** | | | | | |
| 1. Prepare necessary equipment for antenatal care: weighing scale, blood pressure apparatus, stethoscope, thermometer, measuring tape, fetoscope, iron/folic acid tablets, tetanus toxoid/syringe, SP tablets, clean cup and drinking water, exam table/step stool, urine protein test, hemoglobin test, syphilis test, HIV rapid diagnostic test, malaria rapid diagnostic test, soap/water/towel, exam gloves, sharps box, bucket for used instruments, waste bucket, ANC record, and clinic card. |  |  |  |  |  |
| 2. Greet woman and companion of woman’s choice (if she so desires) respectfully and with kindness, and offer them a seat. Tell her/them what you will do and answer her questions. |  |  |  |  |  |
| 3. Provide continual emotional support and reassurance. |  |  |  |  |  |
| **SKILL/ACTIVITY PERFORMED SATISFACTORILY** |  |  |  |  |  |
| **HISTORY** | | | | | |
| 1. Do rapid initial assessment: Ask the woman how she is feeling and respond immediately to any urgent problems. |  |  |  |  |  |
| 2. Obtain the woman’s personal information: name, age, address, and phone number. |  |  |  |  |  |
| 3. Ask her number of previous pregnancies and dates of deliveries, complications/outcomes, and number of living children. |  |  |  |  |  |
| 4. Ask about use of alcohol, tobacco, or unprescribed medications/traditional remedies. |  |  |  |  |  |
| 5. Ask if she is currently breastfeeding. |  |  |  |  |  |
| 6. Ask if she has allergies to any medications or food. |  |  |  |  |  |
| 7. Ask about her menstrual periods: how often they occur, whether they are regular, how long they last, and amount of flow. |  |  |  |  |  |
| 8. Ask about contraceptive history, including use of lactational amenorrhea method or other modern methods, and when the woman started and discontinued the methods. |  |  |  |  |  |
| 9. Ask the date of the **first day** of her last normal menstrual period (LMP) and about any bleeding since that time. |  |  |  |  |  |
| 10. Ask if she has had problems in this pregnancy, such as bleeding or cramping. |  |  |  |  |  |
| 11. Ask if she has had a pregnancy test in this pregnancy, the date, and the results. |  |  |  |  |  |

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| **Checklist for First ANC Contact**  **(Many of the following steps/tasks can be performed simultaneously.)** | | | | | |
| **Step/Task** | **Cases** | | | | |
| 12. Ask if she has had an obstetric ultrasound scan in this pregnancy, the date, and the results. |  |  |  |  |  |
| 13. Ask if she has noted fetal movement (quickening) and, if so, the date it began. |  |  |  |  |  |
| 14. Calculate gestational age and estimated date of delivery (EDD). (Use a pregnancy wheel, or take the date of the **first day** of the LMP, subtract 3 months, and add 7 days; for example, first day of LMP is March 1, 2015; EDD = December 8, 2015). Correlate this information with findings from physical exam (and ultrasound scan, if applicable) to arrive at a final estimate of gestational age and EDD. |  |  |  |  |  |
| 15. Ask about tetanus immunization status. |  |  |  |  |  |
| 16. Ask about general health problems and whether she has been or is being treated for hypertension, heart disease, anemia, malaria, diabetes, HIV, tuberculosis, etc. Screen for TB (ask about persistent cough, fever, night sweats, blood-tinged sputum). |  |  |  |  |  |
| 17. Ask about use of SP in this pregnancy. |  |  |  |  |  |
| 18. Ask about use of a long-lasting insecticide-treated net (LLIN). |  |  |  |  |  |
| 19. Ask about gender-based violence or abuse and social support to deal with it. |  |  |  |  |  |
| 20. Ask about any other problems or concerns not covered already. |  |  |  |  |  |
| 21. Ask the woman what questions she has and provide clear answers. |  |  |  |  |  |
| 22. Record information on the ANC card and/or clinic record and client-held case notes, if applicable. |  |  |  |  |  |
| **SKILL/ACTIVITY PERFORMED SATISFACTORILY** |  |  |  |  |  |
| **PHYSICAL EXAM** | | | | | |
| 1. Wash and dry hands. |  |  |  |  |  |
| 2. Ask the woman if she needs to empty her bladder and, if necessary, instruct her to save urine for testing for proteinuria. |  |  |  |  |  |
| 3. Take her vital signs if not already done (blood pressure and pulse; temperature if indicated). |  |  |  |  |  |
| 4. Assist her onto the exam table/bed. |  |  |  |  |  |
| 5. Observe her general appearance. |  |  |  |  |  |
| 6. Check conjunctiva and palms for pallor. |  |  |  |  |  |
| 7. Assess face and hands for edema. |  |  |  |  |  |
| 8. Check breasts and nipples for lesions. |  |  |  |  |  |
| 9. If uterus is at umbilicus or higher, listen for fetal heart with fetoscope. |  |  |  |  |  |
| 10. Examine abdomen and fundal height in relation to symphysis pubis and umbilicus (13–20 weeks); use abdominal palpitation or measure with measuring tape after 20 weeks. |  |  |  |  |  |
| 11. If the woman states that she is having problems, put exam gloves on both hands and examine external genitalia for bleeding, discharge, and lesions. |  |  |  |  |  |
| 12. Remove gloves by turning them inside out. Dispose of them in trash. Wash hands with soap and water, and dry them. |  |  |  |  |  |

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| **Checklist for First ANC Contact**  **(Many of the following steps/tasks can be performed simultaneously.)** | | | | | |
| **Step/Task** | **Cases** | | | | |
| 13. Inform the woman of the results of the exam; record information on the ANC card and/or clinic record and the client-held case notes, if applicable. |  |  |  |  |  |
| **SKILL/ACTIVITY PERFORMED SATISFACTORILY** |  |  |  |  |  |
| **SCREENING TESTS/TREATMENTS** | | | | | |
| 1. Wash and dry hands. Put on exam gloves. |  |  |  |  |  |
| 2. Counsel the woman on tests that will be done and answer any questions she has. |  |  |  |  |  |
| 3. Draw blood for screening tests: hemoglobin, syphilis, HIV, and malaria rapid diagnostic test, as appropriate. |  |  |  |  |  |
| 4. Dispose of syringe/needles/lancets in sharps box; label samples and ensure that they are taken to the appropriate place for processing. |  |  |  |  |  |
| 5. Remove gloves, and wash and dry hands. |  |  |  |  |  |
| 6. Provide first tetanus toxoid immunization, if indicated. |  |  |  |  |  |
| 7. If the woman is in the second trimester (13 weeks gestation or more), and if she has not had SP within the last month and is not on co-trimoxazole or taking >5 mg of folic acid, counsel her on need for SP and provide SP under directly observed therapy using a clean cup and drinking water. (Decontaminate cups after use and store in a clean place.) |  |  |  |  |  |
| 8. Provide an LLIN, and counsel the woman on the importance of using it every night and how to use it. |  |  |  |  |  |
| 9. If not done previously, if less than 24 weeks, and if available, obtain obstetric ultrasound scan. |  |  |  |  |  |
| 10. Counsel her about the need for iron/folic acid and provide sufficient iron and folic acid tablets (30–60 mg elemental iron; 0.4 mg folic acid) to last until the next contact. |  |  |  |  |  |
| 11. Record the test results, immunization, and provision of SP, LLIN, and iron/folic acid on the ANC card/clinic record and the client-held case notes, if applicable. |  |  |  |  |  |
| **SKILL/ACTIVITY PERFORMED SATISFACTORILY** |  |  |  |  |  |
| **FORMULATE PLAN OF CARE** | | | | | |
| Based on the results of the woman’s history, physical exam, and screening test, formulate a plan of care to address any problems or needs. |  |  |  |  |  |
| Discuss the plan of care with the woman and answer any questions she has. |  |  |  |  |  |
| **SKILL/ACTIVITY PERFORMED SATISFACTORILY** |  |  |  |  |  |
| **COUNSELING** | | | | | |
| Counsel the woman on birth preparation/complication readiness, including danger signs and what to do if they occur. |  |  |  |  |  |
| Counsel her on daily use of iron/folic acid tablets. |  |  |  |  |  |
| Educate the woman about prevention of malaria infection (cause of malaria and its effects on mothers and babies, use of ITNs every night, benefits of IPTp-SP throughout the pregnancy, and signs of malaria and what to do if they occur). |  |  |  |  |  |

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| **Checklist for First ANC Contact**  **(Many of the following steps/tasks can be performed simultaneously.)** | | | | | |
| **Step/Task** | **Cases** | | | | |
| Counsel the woman on other issues relevant to the woman’s plan of care and ensure that you have answered any questions she has. Include health education and health promotion on healthy eating, physical activity, and healthy timing and spacing of pregnancies. |  |  |  |  |  |
| Set the date of the next ANC contact and ensure that the woman understands the importance of continued ANC, which includes SP at not less than monthly intervals. |  |  |  |  |  |
| Thank the woman for coming to the antenatal clinic. |  |  |  |  |  |
| **SKILL/ACTIVITY PERFORMED SATISFACTORILY** |  |  |  |  |  |

## Checklist for Follow-Up ANC Contacts

Place a “****” in the case box if the step/task is performed satisfactorily, an “**X**” if performed unsatisfactorily, or **N/O** if it is not observed.

**Satisfactory:** Performs the step or task according to the standard procedure or guidelines. **Unsatisfactory:** Is unable to perform the step or task according to the standard procedures or guidelines. **Not Observed:** Step or task not performed by learner during evaluation by facilitator.

Learner’s name: Date observed:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Checklist for Follow-Up ANC Contacts** | | | | |
| **Step/Task** | **Cases** | | | |
| **GETTING READY** | | | | |
| 1. Prepare the necessary equipment and supplies. |  |  |  |  |
| 2. Greet the woman respectfully and with kindness. |  |  |  |  |
| 3. Ask if she has experienced any danger signs or symptoms and address them immediately (vaginal bleeding, severe headache/blurred vision, fever, convulsions, persistent cough, fever, night sweats, blood-tinged sputum, etc.). |  |  |  |  |
| 4. Listen to the woman and respond attentively to her questions and concerns. |  |  |  |  |
| 5. Ask about any previous antenatal care during this pregnancy. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **HISTORY TAKING** | | | | |
| 1. Ask the woman whether she has had any problems since her last contact and if she has received care from another provider. |  |  |  |  |
| 2. Ask whether her personal information or daily habits have changed and whether she has been unable to carry out any part of the plan of care. |  |  |  |  |
| 3. Inquire about nightly use of an insecticide-treated net (ITN). |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **PHYSICAL EXAMINATION** | | | | |
| 1. Wash hands thoroughly. |  |  |  |  |
| 2. Measure blood pressure and pulse. Measure temperature if necessary. Perform a focused head-to-toe examination. |  |  |  |  |
| 3. Inspect the abdomen. |  |  |  |  |
| 4. Palpate the abdomen and note uterine size, fetal heart rate, fetal movements, and fetal position (after 36 weeks). |  |  |  |  |
| 5. Perform an external genital examination, if indicated. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **POSTEXAMINATION TASKS** | | | | |
| 1. Dispose of waste materials in a leakproof container or plastic bag. |  |  |  |  |
| 2. Remove gloves and discard them in a leakproof container or plastic bag. |  |  |  |  |
| 3. Wash hands thoroughly. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Checklist for Follow-Up ANC Contacts** | | | | |
| **Step/Task** | **Cases** | | | |
| **TESTING** | | | | |
| 1. Conduct tests as indicated or needed. If tests for HIV and syphilis have not been performed, they should be done at this contact. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **COUNSELING AND HEALTH EDUCATION** | | | | |
| 1. Discuss the woman’s birth preparedness and complication readiness plan. |  |  |  |  |
| 2. Provide health education and health promotion counseling on healthy eating, physical activity, healthy timing and spacing of pregnancies, and preventing malaria infection. |  |  |  |  |
| 3. Provide appointment for next antenatal contact. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **PROVISION OF CARE** | | | | |
| 1. If the woman is in the second trimester of pregnancy (13 weeks) or beyond, administer intermittent preventive treatment of malaria in pregnancy with sulfadoxine-pyrimethamine (IPTp-SP) by directly observed therapy, three tablets with clean cup and water. Ensure that it has been at least 1 month since her last dose. Do not administer SP if the woman is in the first trimester of pregnancy, but inform her when she should receive the first dose of IPTp-SP. Do not administer if she is taking co-trimoxazole prophylaxis and/or if she is taking > 5 mg of folic acid. |  |  |  |  |
| 2. If the woman has not received an ITN, provide one now or provide her with information about where to obtain one and how to use it. |  |  |  |  |
| 3. Give immunizations and other prophylaxis (e.g., tetanus toxoid, iron 30–60 mg/folic acid 0.4 mg, presumptive treatment for hookworm, iodine, etc., per country guidelines). If IPTp-SP is administered and only a high dose of folic acid (≥ 5 mg) is available, withhold folic acid for 2 weeks, or per country guidelines. |  |  |  |  |
| 4. Record all findings and medications prescribed/dispensed on the woman’s ANC card and/or clinic card and client-held case notes, if applicable  (IPTp-SP 1, IPTp-SP 2, etc.). |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |

## Recordkeeping Exercise

This exercise may be used as a small- or large-group activity, or as an evening assignment to be discussed with the group the next day.

**Small-group activity**: Learners should read the case scenario individually and answer the questions as a group. Groups will share and discuss their answers.

**Large-group activity**: Learners should read the case scenario individually. Brainstorm and discuss their answers.

**Evening assignment**: Learners should read the case scenario and answer the questions. The next day, the facilitator will lead a group discussion about the answers.

Case Scenario

Jasmine is 21 years old and about 20 weeks pregnant. This is her second pregnancy. She has had one spontaneous abortion. Jasmine goes to the ANC clinic for the first time. She has not experienced any problems during this pregnancy.

Jasmine has never had any serious disease in the past. The first day of her last menstrual period was about 5 months ago. Her periods had been regular and lasted for about 4 days. Jasmine’s body temperature is normal, her blood pressure is 120/80 mm Hg, and her pulse is 80 beats per minute. Jasmine’s conjunctivas are slightly pale. She says that she has been bitten many times by mosquitoes.

The provider palpates her abdomen, finds her uterus at the level of the umbilicus, and hears the fetal heart at 140 beats per minute. Jasmine states that she feels the baby’s movements. These findings confirm a gestational age of 20 weeks.

The provider completes Jasmine’s physical examination by taking blood for hemoglobin, administering syphilis and HIV testing, and giving her the first dose of tetanus toxoid immunization and enough iron (30–60 mg) and folic acid (0.4 mg) tablets to last until her next contact. The provider will recommend an obstetric ultrasound scan (according to country policy and if it is available) to confirm gestational age and to identify multiple pregnancy and fetal anomalies. The provider also gives her three SP tablets for prevention of malaria. Jasmine swallows them with a cup of clean water as the provider observes. The provider tells Jasmine that she will receive IPTp-SP at each scheduled ANC contact, but not more often than monthly, up to the time she gives birth. To decrease the risk of getting malaria, the provider explains the possible complications that can arise with the mother and baby if the mother contracts malaria while pregnant. The provider emphasizes the need to use an ITN every night to avoid bites by malaria-carrying mosquito.

The provider informs Jasmine about her next ANC contact. Jasmine will go to her mother’s home for 6 weeks. The provider and Jasmine agree that the next contact will be at about 26 weeks of pregnancy, or earlier if Jasmine experiences danger signs.

Questions

### Is it necessary for the provider to fill out information about Jasmine’s contact in any register or individual record forms? Why or why not?

Yes, the provider should complete whatever individual records and registers are routinely used in the health facility and those carried by the woman. Information should include findings about the woman’s medical history, results of her physical exam, and all medications and treatments given to the woman, such as tetanus toxoid injection, iron/folic acid tablets, and IPTp.

Counseling provided about important topics such as MIP should be noted as well. This is the best way for all providers to ensure that women are receiving appropriate and complete care during their pregnancies.

### How would the provider benefit by maintaining information about Jasmine? How would Jasmine benefit? What is the benefit to the district health management team?

When the provider completes the record with the dates and results of Jasmine’s medical history and physical exam, s/he will supply vital information for use by all the skilled providers who will take care of Jasmine for the entire antenatal period, as well as during childbirth and the postpartum period. This information will help to correctly determine when to give the next dose of tetanus toxoid and the next dose of IPTp-SP. This benefits Jasmine because she will receive the correct medications at the appropriate times, thus decreasing her risk of acquiring tetanus and malaria. The district health management team can perform audits of these records to make sure that providers are giving medications at the proper times in pregnancy and in the appropriate amounts. They can also ascertain that women are receiving important counseling about preventive measures, such as the use of ITNs, and thus be able to gather statistics on the number of pregnant women in their district who are benefiting from these interventions.

### Identify all of the information that the provider should record.

* + The woman’s medical history, past obstetrical history, date of the first day of her last menstrual period (in order to calculate gestational age), and whether the woman feels fetal movement
  + Information from the physical exam, especially blood pressure and the size of the uterus, to confirm gestational age
  + Counseling given to the mother about how to avoid MIP by taking IPTp-SP and using ITNs, and about birth preparedness and complication readiness
  + Medications and treatments given, such as tetanus toxoid, iron/folic acid, and IPTp-SP (There are two instances in which SP is **NOT** given: if the woman is receiving folic acid in doses ≥ 5 mg and if the woman is receiving co-trimoxazole prophylaxis.)
  + Tests performed, such as hemoglobin, syphilis, and HIV, with results
  + Identification of problems and treatment provided; documentation of any referrals made
  + Date of next ANC contact

# Module Two: Transmission of Malaria

## Group Discussion about Malaria Transmission

Directions

Learners read the question and list their responses individually. The facilitator asks learners to share their responses and leads the discussion.

Question

An 18-year-old woman who is 26 weeks pregnant with her first child has come to the clinic to register. She tells you that she heard on the radio that malaria can cause problems during pregnancy. In the space provided below, list at least four key issues you will discuss with this young woman about MIP and why.

Possible Responses

Responses should focus on counseling points outlined in the module. Asking why learners would include these points helps them to understand the issues. Possible answers include:

1. Pregnant women, especially those in their first or second pregnancies, are at higher risk of getting malaria.

**Rationale:** These women especially need IPTp-SP to avoid malaria, as their natural immunity decreases during pregnancy. Pregnant women are at higher risk of severe malaria, which is a major cause of maternal death.

1. Pregnant women with malaria may have no symptoms.

**Rationale:** A pregnant woman may have malaria parasites in her blood but not have symptoms of malaria. If the woman does not receive treatment, the parasites in her blood will attack the placenta and cause problems for the baby. IPTp-SP will prevent the parasites from attaching to the placenta so that the baby develops normally.

1. Malaria causes maternal anemia.

**Rationale:** Severe anemia is a major cause of maternal death and causes low birthweight in babies.

1. Malaria can cause preterm birth or low birthweight.

**Rationale:** Preterm and low-birthweight babies have a much higher risk of dying than full-term and normal-birthweight babies. Low birthweight is the single greatest risk factor for infant death during the first month of life.

1. Pregnant women living with HIV have a higher risk of getting malaria than HIV-negative women.

**Rationale:** Due to a weakened immune system, HIV infection makes it easier for a woman to get malaria, and it may be more severe than HIV-negative women might experience.

1. Malaria can be prevented and treated.

**Rationale:** MIP can cause many problems for both the mother and the baby, but it can be prevented and treated. IPTp-SP is recommended for all pregnant women, starting as early as possible in the second trimester of pregnancy, because the placenta becomes susceptible to malaria at around the end of the first trimester. IPTp-SP is easy to administer and can be taken on a full or empty stomach. A woman with MIP should see a skilled provider for treatment.

Teaching women how to prevent malaria can help them avoid life-threatening problems for themselves and their children.

# Module Three: Prevention of Malaria

## Activity Guide for Malaria Prevention Session

The facilitator may choose one or more of the following activities to supplement the illustrated presentation on malaria prevention.

## Group Discussion

* Learners share their observations of the most common ways to repel mosquitoes in their home regions. Talk about what does and what does not work.
* Brainstorm common reasons given by clients for not using ITNs and discuss appropriate responses. (This could be done as a small-group activity.)
* If learners are from the same country or city, identify places where women can buy nets or receive them free of charge. Include types of nets and cost.
* Include LLINs in the discussion, if applicable in your setting.
* Include IRS in the discussion, if appropriate.

## Role-Play: Using ITNs

The purpose of the role-play is to discuss common reasons given by clients for not using ITNs. One learner acts as a client and gives common reasons or excuses for not using an ITN. Another learner acts as the provider and responds to each reason or excuse.

## Case Study 1: Conducting an ANC Contact: Answer Key

Directions

Divide the learners into small groups. Learners read and analyze this case study individually and then answer the case study questions as a group. The groups then share their answers.

Case Study

Hawa is 24 years old. She is 16 weeks pregnant with her second child. Her last pregnancy was 2 years ago, and it was uneventful. She lives in a small town, about 5 kilometers from the maternity clinic. She is a part-time teacher at a nursery school that is 3 kilometers from her home. Her husband works 45 kilometers away and returns home late in the evening. Hawa arrives today for her first ANC contact with a complaint of slight dizziness. She has walked to the clinic.

Basic Assessment

1. What will you include in your initial assessment of Hawa and why?
   * Greet Hawa respectfully and with kindness to establish rapport.
   * To identify and treat life-threatening illnesses as rapidly as possible, perform a quick check to determine her condition. If she has no danger signs (e.g., vaginal bleeding or severe headache), she can be seen for routine ANC.
   * Tell her what will happen during this contact. Listen to her carefully and answer her questions in a calm and reassuring way. She will be more likely to share her concerns if she knows that she is being listened to.
   * Ask questions to determine the onset and duration of her dizziness, whether it has occurred previously, if there are any accompanying symptoms, and if relief measures were taken. A targeted history helps you gather the most pertinent information about the current problem.
   * Because it is her first contact, obtain a complete history, including date of last menstrual period to confirm gestational age, and record your findings.
2. What particular aspects of Hawa’s physical examination will help you make an evaluation or identify her problems/needs and why?
   * Measure Hawa’s temperature, blood pressure, and pulse to help determine the degree of illness.
   * Check the color of her conjunctiva for signs of anemia.
   * Check her eyes, mouth, tongue, and skin for signs of dehydration.
   * Palpate her abdomen to help determine gestational age and assess whether it corresponds to the gestational age based on the date of her last menstrual period.
3. Which screening procedures/laboratory tests will you include (if available) in your assessment of Hawa and why?
   * Because this is Hawa’s first ANC contact, check her hemoglobin and perform a test for syphilis. Screen her for TB, and provide testing and counseling for HIV.

Evaluation

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

Hawa’s temperature is 37 degrees C, her blood pressure is 110/72 mm Hg, and her pulse is 84 beats per minute. Her hemoglobin is 11 g/dL. She states that she left home this morning without eating breakfast so she would not be late for the clinic. She had slight nausea earlier in her pregnancy, but this has stopped. She explains that she eats irregular meals due to her work and the distances she must walk. Hawa has felt fetal movement (quickening) for the last several days.

Her physical examination is normal, and the size of her uterus corresponds to the gestational age based on last menstrual period.

1. Based on these findings, what is Hawa’s diagnosis and why?
   * Since Hawa’s general appearance, vital signs, and hemoglobin are normal, and no malaria is detected, her symptoms are most consistent with dizziness caused by walking a long distance without eating enough food.

Care Provision

1. Based on your diagnosis, what is your plan of care for Hawa and why?
   * Reassure Hawa that her pregnancy is progressing normally.
   * Counsel her about the need to eat regular, nutritious meals and maintain fluid intake to avoid further episodes of dizziness. Give her some suggestions as to how she can do this, given her work and the long distances she walks (e.g., packing meals and snacks to take with her).
   * Because she is 16 weeks pregnant, find out if she is taking co-trimoxazole or reacts to any drug. Also ask if she is taking more than 5 mg of folic acid. If not, give her the first dose of SP (three tables of SP 500 mg/25 mg) with a clean cup and safe drinking water. Watch her take the tablets using directly observed therapy. Counsel Hawa about MIP, how to prevent it (including the use of ITNs), and danger signs that could indicate malaria.
   * Provide Hawa with an ITN, tell her how to use it, and stress that it should be used every night. Discuss the importance of returning for her next ANC contact and IPTp-SP dose. Ways to prevent malaria include covering doors and windows at night; wearing protective clothing that covers her arms and legs; using mosquito repellent and coils, if appropriate; and spraying rooms with insecticide.
   * Provide other management measures/advice for identified conditions like syphilis and HIV according to local protocols; provide other preventive measures, such as iron 30–60 mg/folic acid 0.4 mg tablets, tetanus toxoid immunization, and presumptive treatment for hookworm, according to local protocols. If available and per local protocol, recommend an obstetric ultrasound scan to verify gestational age.
   * Involve her in her own care by counseling her about other danger signs and what to do if they occur.
   * Begin to discuss with her the need for a birth preparedness and complication readiness plan. Ask her where she wants the birth to take place and who will attend the birth. Explain to her that it is important to arrange for transportation to the place of birth or to a referral center if there are complications. Discuss the need to have funds set aside to pay for this transportation and care.
   * Give Hawa an appointment for her next contact, at about 20 weeks. Tell her to come to the clinic immediately if she has any danger signs.
   * Record your findings, the IPTp-SP treatment dose (IPTp 1, IPTp 2, etc.), and provision of the ITN on the ANC card and/or antenatal record and client-held case notes, if applicable.

Follow-Up

Hawa returns for her second ANC contact at 20 weeks. She reports no danger signs, and she states that she is eating nutritious foods regularly throughout the day. She has had no further episodes of dizziness. She sleeps under an ITN every night. She and her husband have asked a neighbor with a car if they would be willing to take Hawa to the health center where she has chosen to have her baby. This same neighbor would be willing to take her to the district hospital if she has complications.

1. Based on these findings, what is your continuing plan of care for Hawa and why?
   * Perform a targeted history and physical exam. Provide care based on these findings.
   * Congratulate Hawa on her healthy behaviors, particularly the changes she has made in her diet and sleeping nightly under an ITN.
   * Congratulate Hawa on finding transportation to a health facility at the time of her baby’s birth. Note this plan on her ANC card and/or antenatal record and client-held case notes, if applicable.
   * Assist Hawa in the development of her birth preparedness and complication readiness plans by continuing to discuss them with her. Note any decisions in the antenatal record.
   * Since it has been at least a month since her last contact, give Hawa three SP tablets today with a clean cup and water, and watch her take the tablets using directly observed therapy. Record the information on her ANC card and/or antenatal record and client-held case notes, if applicable.
   * Give Hawa health education information based on her needs and any questions she has. Provide testing for syphilis and HIV according to local protocols, and give tetanus toxoid immunization and iron/folic acid as needed. Discuss danger signs and what to do if they occur.
   * Give Hawa an appointment for another ANC contact at around 26 weeks. Record the appointment on her ANC card and/or antenatal record and client-held case notes, if applicable.
   * Thank Hawa for coming to the clinic.

## Case Study 2: Conducting an ANC Contact—Answer Key

Directions

Divide the learners into small groups. Learners should read and analyze this case study individually and then answer the case study questions as a group. The groups should then share their answers.

Case Study

Thandi is 19 years old and has been married for a year. She arrives for her first contact at the ANC clinic because she suspects she is pregnant. Thandi’s husband works in a distant city and is home only on weekends. His mother lives nearby and comes often to check on Thandi. Her mother-in-law has already advised her son and Thandi to have the traditional birth attendant, who lives very close by, attend the birth.

Basic Assessment

1. What will you include in your initial assessment of Thandi and why?
   * Greet Thandi respectfully and with kindness to establish rapport, and congratulate her on coming to the clinic early in her pregnancy.
   * To identify and treat life-threatening illnesses as rapidly as possible, perform a quick check to determine her condition. If she has no danger signs, such as bleeding or severe headache, she can be seen for routine ANC.
   * Tell her what will happen during this contact. Listen to her carefully and answer her questions in a calm and reassuring way. She will be more likely to share her concerns if she knows that she is being listened to.
   * Because this is Thandi’s first ANC contact, obtain a complete history and record your findings on the ANC card and/or antenatal record. A complete history will enable you to

identify and manage problems immediately. It will also help you tailor health messages to Thandi’s needs.

* + Calculate the gestational age based on the date of the first day of her last menstrual period, and correlate this with findings from her history and physical exam.
  + Ask Thandi about where she wants to give birth and whom she wants to attend the birth. Discuss how decisions are made in her family, and the suggestion made by her husband and mother-in-law to have the traditional birth attendant attend the birth. Ask whether her mother-in-law is willing to come to the antenatal clinic with Thandi during a contact. Ask whether she has made arrangements for transportation to the place of birth or to a referral hospital if there are complications. Ask whether she has funds to pay for care during the birth or for emergency care. Asking these questions will assist Thandi in formulating a birth plan and making preparations for possible complications.

1. What particular aspects of Thandi’s physical examination will help you make an evaluation or identify her problems/needs and why?
   * Perform a physical examination and record the results on the ANC card and/or antenatal record and client-held case notes, if applicable. Findings from the physical exam will help you plan for Thandi’s care.
   * Palpate the abdomen to assess uterine size and whether it is consistent with the gestational age you calculated based on the date of Thandi’s last menstrual period.
2. What screening procedures/laboratory tests will you include (if available) in your assessment of Thandi and why?
   * Screen for TB and obtain routine laboratory tests (rapid plasma reagin, hemoglobin, and HIV), and record the results on the ANC card and/or antenatal record and client-held case notes, if applicable. Abnormal test results should be treated according to local protocols.

Evaluation

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

Thandi’s history and physical examination reveal no abnormalities. The size of the uterus is compatible with the date of her last menstrual period (14 weeks). Her rapid plasma reagin and HIV tests are negative, and her hemoglobin is 10.5 g/dL.

1. Based on these findings, what is Thandi’s diagnosis and why?
   * Thandi’s pregnancy is progressing normally except for mild anemia (mild anemia is defined by a hemoglobin of 7–11 g/dL). She is in the second trimester of pregnancy (14 weeks).
   * Thandi needs information about how to plan for the birth, including the need to have a skilled provider attend the birth.
   * Based on the information gathered in the initial assessment, she may also need to begin planning for potential complications, including decision-making, funds, and transportation.

Care Provision

1. Based on your diagnosis, what is your plan of care for Thandi and why?
   * Provide Thandi with basic ANC, including testing and counseling for syphilis and HIV according to local protocols, iron/folic acid tablets, counseling about nutrition to increase sources of iron in her diet, and tetanus toxoid immunization, if needed.
   * If available and per local protocols, recommend an obstetric ultrasound scan to confirm gestational age and to identify multiple pregnancy and fetal anomalies.
   * Since she is now in the second trimester, ask about use of folic acid at a dose > 5 mg, co- trimoxazole, or allergy to sulfa-based drugs. If none of these apply, give her the first dose of IPTp-SP (500 mg/25 mg)—three tablets, with a clean cup and safe drinking water—as she is now eligible for the first dose of IPTp-SP per recent WHO guidelines. Watch her take the tablets to comply with directly observed therapy. Record IPTp 1 on her ANC card, in the ANC register, and in her client-held case notes, if applicable. Counsel Thandi about MIP and provide an ITN (or a voucher to purchase one, with instructions on how to redeem it). Discuss the importance of using an ITN every night and other preventive measures, and about danger signs that could indicate malaria. Advise her that she will need to have her second IPTp-SP dose at her next contact, as long as it has been at least 1 month after this contact.
   * Counsel her about danger signs and what to do if they occur so that possible problems are identified and treated immediately.
   * Begin to discuss with her the need for a birth preparedness and complication readiness plan. Suggest that her mother-in-law accompany her to the next antenatal contact so that she too can learn about the importance of these plans.
   * Give Thandi other information based on her questions and individual needs. Individualized health education and health promotion messages are important components of ANC (healthy eating, physical activity, birth spacing, etc.).
   * Give Thandi an appointment for her next antenatal contact (at about 20 weeks gestation). Tell her to come to the clinic immediately if she has any danger signs.
   * Thank Thandi for coming to the clinic.

Follow-Up

Thandi returns to the antenatal clinic at 20 weeks gestation, accompanied by her mother-in-law. She states that she feels well and feels the baby moving. She is taking her iron/folic acid tablets daily and trying to eat foods containing iron. The results of her history and physical examination are normal. She is given her second dose of IPTp-SP—three tablets, with a clean cup and water—and is observed while taking it. She uses an ITN every night. She states that she and her mother-in-law have discussed the provider’s suggestions about making a birth plan and using a skilled provider at the time of birth.

Her mother-in-law would like to ask the provider some questions about these points.

1. Based on these findings, what is your continuing plan of care for Thandi and why?
   * Listen respectfully to Thandi and her mother-in-law as they discuss the birth plan and use of a skilled provider. Answer their questions as fully as possible and give them time to make their decisions.
   * Suggest making a plan for complication readiness, including setting aside money for emergency transport and making arrangements for transportation. Note on the ANC card

and/or antenatal record any decisions made at this contact about the birth plan, use of a skilled provider, and complication readiness plan.

* + Provide health education according to Thandi’s specific needs and answer all of her questions about the pregnancy. Review danger signs and what to do if they occur. This will reinforce information given in the previous contact.
  + Give Thandi an appointment for her next antenatal contact (at about 26 weeks) and record it on her ANC card and/or antenatal record and client-held case notes, if applicable.
  + Thank her for coming to the clinic.

Group Discussion

Based on the case study above, the facilitator can lead a group discussion about the following:

1. **The updated WHO recommendations for IPTp-SP use**. Providers are accustomed to waiting until at least 16 weeks gestation and/or quickening before providing the first dose. Use information from the reference manual to reassure them that SP can be used safely from the beginning of the second trimester (13 weeks) up to the time of delivery and should be given at each scheduled ANC contact but no more often than monthly. Have learners brainstorm about how they will put these new guidelines into practice in their own facilities.
2. **Educating women and the community about the importance of early ANC.** Social norms often prevent women from seeking ANC early in pregnancy, so providers must work with community leaders, community health workers, women’s groups, and others to educate them on the need to encourage women to attend ANC as soon as they think they may be pregnant. Ask learners what they can do to improve early ANC attendance in their own facilities.
3. **How to build time for discussing birth preparedness/complication readiness plans into the antenatal sessions.** Facilitators and learners can share examples from their experiences and brainstorm about the changes they could make in their sites to encourage ANC and birth preparedness/complication readiness planning.

# Module Four: Diagnosis and Treatment of Malaria

## Brainstorming Activity for Malaria Diagnosis

This activity may be used with the entire group of learners or as a small-group activity. If used as a small-group activity, allow time for the groups to share their results.

* On a piece of flip chart paper, make two columns, one with the heading “Column A: Complaints” and one with the heading “Column B: History/Physical,” as shown below.
* Ask learners to share the complaints made by patients that suggest that they have malaria. Record these in “Column A: Complaints.”
* Ask the learners to identify the findings from the history and physical examination that would confirm the diagnosis of malaria. Record these in “Column B: History/Physical.”
* Review these lists to find out whether the complaints and findings are consistent with the symptoms and signs of clinical malaria.

Answer Key

|  |  |
| --- | --- |
| **Column A: Complaints** | **Column B: History/Physical** |
| Fever | * Axillary temperature 37.5 degrees C or above * No signs of other infection (such as kidney or bladder infection, influenza, pneumonia, etc.) |
| Weakness and dizziness | * Pale conjunctivas/tongue/hands; breathlessness, anemia |
| Headaches | * Blood pressure less than 140/90 mm Hg (excluding hypertension/pre-eclampsia) |
| Very yellow urine | * Yellow eyes (jaundice) |
| Joint pains | * No bruising, swelling of joints, or palpable tenderness over joints |

## Case Study 3: Treating a Client Who Has Malaria—Answer Key

Directions

Divide the learners into small groups. Learners should read and analyze this case study individually and then answer the case study questions as a group. The groups should then share their answers.

Case Study

Aminah is 30 years old. She is approximately 24 weeks pregnant with her second baby. She comes to the antenatal clinic for the first time complaining of fever for the last 2 days. Aminah 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 Aminah and why?
   * Greet Aminah respectfully and with kindness to establish rapport.
   * To identify and treat life-threatening illnesses as rapidly as possible, perform a quick check to determine her degree of illness. Check Aminah’s temperature, pulse, blood pressure, and respiratory rate. If shock is present, it should be treated immediately.
   * Tell her what will happen during this contact. Listen to her carefully and answer her questions in a calm and reassuring way. She will be more likely to share her concerns if she knows that she is being listened to.
   * Obtain a targeted history and record your findings. Gather information about the onset, duration, and severity of fever, 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, or calf tenderness), history of any other danger signs, signs of uncomplicated and severe malaria, and history of the pregnancy (e.g., date of first day of last menstrual period, symptoms of pregnancy, quickening, ultrasound scan results [if applicable], presence of contractions, and leaking of fluid). Every pregnant woman living in malaria-endemic areas who presents with a fever or history of fever should be suspected of having malaria. However, other causes of fever in pregnancy should also be considered.
2. What particular aspects of Aminah’s physical examination will help you make an evaluation or identify her problems and needs, and why?
   * Perform a physical examination and record the results on the ANC card and/or antenatal record and client-held case notes, if applicable. The examination should be based on information obtained in the history. Evaluate Aminah’s general appearance, and measure her blood pressure, temperature, respiration, and pulse. Look for pallor of the conjunctivae (to check for anemia) and for signs of dehydration (loose, dry skin and sunken eyes). Perform an abdominal examination to determine fundal height and estimate gestational age. Determine the fetal heart rate. Since she is not 36 weeks pregnant or more, it is not necessary to determine fetal presentation.
3. What screening procedures and laboratory tests will you include (if available) in your assessment of Aminah and why?
   * Hemoglobin to check for anemia if pallor is present, malaria test (microscopy if available, RDT otherwise), syphilis screening, and urine for protein (if systolic blood pressure is ≥ 140 mm Hg or diastolic blood pressure is ≥ 90 mm Hg, to rule out pre-eclampsia)
   * HIV counseling and testing; TB screening

Evaluation

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

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

Aminah is fully conscious and able to walk. Her temperature is 38.7 degrees C, her blood pressure is 122/68 mm Hg, her pulse rate is 92 beats per minute, and her respiration rate is 18 breaths per minute. Aminah is pale, her mouth and tongue are dry, and her eyes are mildly sunken. Her fundal height is 23 cm (which is compatible with the date of her last menstrual period), and fetal heart rate is 140 beats per minute.

Her hemoglobin is 10.5 g/dL; the thick blood film test for malaria is positive. The tests for syphilis and HIV are negative.

1. Based on these findings, what is your diagnosis of Aminah and why?
   * Aminah 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

1. Based on your evaluation, what is your plan of care for Aminah and why?
   * Begin treatment for uncomplicated malaria according to the case management job aid (see Figure 11 in the reference manual). Prescribe ACTs per country guidelines and observe her as she takes the first dose.
     + ACTs are recommended for the second and third trimesters.
     + Second and third trimesters (first-line drugs): Use the ACT known to be effective in the country; or use artemether/lumefantrine 20 mg/120 mg, four tablets every 12 hours for 3 days (to be taken after a fat-containing meal or drink); or use artesunate/amodiaquine 100 mg/270 mg, two tablets daily for 3 days.
   * Instruct her on how to take the medication for days two and three.
   * If her axillary temperature is ≥ 38 degrees C, instruct her on the use of paracetamol 500 mg: two tablets every 6 hours until her temperature returns to normal.
   * Tell her to return to the clinic in 48 hours for follow-up, sooner if she is not feeling better, or immediately if she has signs and symptoms of severe malaria (e.g., convulsions, breathing difficulty, or loss of consciousness).
   * Tell her that she must take all of her medication even if she feels better.
   * Tell her about the causes of malaria and how to prevent it, including the use of ITNs. Provide her with an ITN and tell her how to use it.
   * Talk to her about her need to prepare a birth plan.
   * Give iron 30–60 mg and folic acid 0.4 mg tablets, and counsel her to eat locally available foods with adequate sources of iron.
   * Schedule an appointment for her next ANC contact at about 26 weeks to receive her first IPTp-SP dose and tetanus toxoid immunization, if needed. Record all findings and treatments on her ANC card and/or antenatal record and client-held case notes, if applicable.
   * Thank her for coming to the clinic.

## Checklist for Treatment of Uncomplicated Malaria and Referral for Severe Malaria

Place a “****” in the case box if the step/task is performed satisfactorily, an “**X**” if it is performed unsatisfactorily, or **N/O** if it is not observed.

**Satisfactory:** Performs the step or task according to the standard procedure or guidelines. **Unsatisfactory:** Is unable to perform the step or task according to the standard procedures or guidelines. **Not Observed:** Step or task not performed by learner during evaluation by facilitator.

Learner’s name: Date observed:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Checklist for Treatment of Uncomplicated Malaria and Referral for Severe Malaria** | | | | |
| **Step/Task** | **Cases** | | | |
| **GETTING READY** | | | | |
| 1. Greet the woman respectfully and with kindness. |  |  |  |  |
| 2. Ask if she has experienced any danger signs or symptoms and address them immediately. Ask about her general well-being. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **DIAGNOSIS OF MALARIA** | | | | |
| 1. Ask her if she has any complaints, such as fever or recent history of fever. Ask her if she has had symptoms of severe malaria, including impaired consciousness/coma, convulsions, prostration/generalized weakness, or respiratory difficulty. |  |  |  |  |
| 2. If she answers yes to any of the questions in #1, perform microscopy, if available, or a malaria rapid diagnostic test. If positive, confirm malaria disease. |  |  |  |  |
| 3. If no signs/symptoms of severe malaria are present, confirm uncomplicated malaria, perform physical exam as described below and treat per the case management job aid (see see Figure 11 in reference manual). |  |  |  |  |
| 4. If signs/symptoms of severe malaria are present, confirm severe malaria and treat per the case management job aid (see see Figure 11 in reference manual). |  |  |  |  |
| 5. Listen to the woman and her family, and respond to their concerns and questions. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **PHYSICAL EXAMINATION** | | | | |
| 1. Wash your hands thoroughly. |  |  |  |  |
| 2. Note the woman’s general appearance and measure her axillary temperature, blood pressure, pulse, and respiratory rate. Check her level of consciousness and check for pallor, dry mouth, jaundice, etc. |  |  |  |  |
| 3. If the woman is attending the routine antenatal clinic and is in stable condition (i.e., uncomplicated malaria is confirmed), provide treatment as necessary and complete other ANC tasks (see checklists for ANC). |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Checklist for Treatment of Uncomplicated Malaria and Referral for Severe Malaria** | | | | |
| **Step/Task** | **Cases** | | | |
| **TREATMENT OF UNCOMPLICATED MALARIA** | | | | |
| If microscopy or rapid diagnostic tests are positive for malaria and the woman does not have any of the danger signs listed above that suggest severe malaria, diagnose uncomplicated malaria and treat according to the case management job aid (see see Figure 11 in reference manual). |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **COUNSELING AND HEALTH EDUCATION FOR UNCOMPLICATED MALARIA** | | | | |
| 1. Instruct her on how to take additional drugs that are prescribed:    * If axillary temperature is ≥ 38 degrees C, give paracetamol 500 mg: two tablets every 6 hours until her temperature returns to normal. |  |  |  |  |
| 2. Educate her about malaria prevention and control, possible side effects of drugs, etc. |  |  |  |  |
| 3. Counsel her on ITN use and, if she does not have one, provide an ITN or voucher to purchase one. |  |  |  |  |
| 4. Advise her to come back to the facility within 48 hours or at any time if she feels worse. |  |  |  |  |
| 5. Record relevant information and medications given in the woman’s ANC card and/or clinic card and client-held case notes, if applicable. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |
| **REFERRAL FOR ALLERGIES TO ANTIMALARIALS** | | | | |
| 1. If she is allergic to antimalarials, refer her immediately to a higher level of care for appropriate treatment. |  |  |  |  |
| **REFERRAL FOR SEVERE MALARIA** | | | | |
| 1. If she has any of the danger signs listed under History and Physical Examination, and microscopy and/or rapid diagnostic test are positive, diagnose **severe malaria** and:    * Explain the situation to the client and her family.    * Give her prereferral treatment according to the case management job aid (see Figure 11 in reference manual) if she has not yet taken any medication. |  |  |  |  |
| 1. Refer immediately.    * Write a referral note.    * Record information on the woman’s ANC card and/or clinic record and client-held case notes, if applicable. |  |  |  |  |
| **STEP/TASK PERFORMED SATISFACTORILY** |  |  |  |  |

## Group Activity for Malaria Diagnosis and Treatment

The purpose of this activity is to help learners become used to asking questions and looking for key physical signs when a pregnant woman presents with symptoms of malaria. The activity will also help them know how to give the correct medication and when to refer the woman.

Divide the learners into four groups as follows:

* Group 1: History
* Group 2: Physical exam
* Group 3: Treatment
* Group 4: Referral

Groups 3 and 4 will receive additional information about the case. Write the information listed below on a card and give it to each group.

Read the case description to the groups.

Each group will have 10 minutes to list the actions to be performed for their category of care. For example, Group 1 lists all relevant and important questions to ask a woman who may have malaria. Group 2 lists the necessary components of an examination for a woman who may have malaria.

Group 3 lists treatment options based on the additional information provided to them. Group 4 lists diagnosis and management plans based on the additional information provided to them.

Each group will present their list to the larger group, which will suggest additional actions to complete the list, if necessary.

Case description: A 32-year-old woman who is 28 weeks pregnant with her second child attends the antenatal clinic for the first time and complains of fever and headaches.

Give Group 3 data about the client to indicate uncomplicated malaria (temperature is 37.5 degrees C axillary, blood pressure is 120/70 mm Hg, mild dehydration, no convulsions or loss of consciousness, positive malaria RDT, etc.).

Give Group 4 the following information: You treated this woman for uncomplicated malaria 2 days ago. She returns to the clinic complaining of fever and extreme weakness. She looks dehydrated. Her relatives say that she has been behaving in a “funny way.” She seems confused and has been vomiting, and her sclera appears to be yellow. What is your evaluation, and how will you manage her now?

## Model Answers for Group 1

* How long has she had a fever?
* Is she having signs/symptoms of kidney infection, ruptured membranes, upper respiratory infection, etc.?
* Has she had any convulsions or fits?
* Has she noticed any yellowness of the eyes?
* Is she passing adequate amounts of urine? What is the color of her urine?
* Has she been vomiting repeatedly?
* Has she had any medication? If so, what medication?
* Is she allergic to sulfa drugs, such as co-trimoxazole?
* Have relatives noticed any significant change in her behavior?
* Has she been eating normally and drinking enough fluids?
* How many months pregnant is she?
* Has she had other complications in this pregnancy?
* How many children has she had?

## Model Answers for Group 2

* Measure her vital signs: temperature, blood pressure, pulse, and respiration.
* A rapid pulse rate may be normal when there is a fever.
* A rapid respiratory rate and pattern or breathing difficulties may suggest severe malaria or other chest and heart problems.
* Blood pressure with a **systolic** pressure lower than 90 mm/Hg may indicate shock, but

**diastolic** blood pressure higher than 90 mm/Hg may indicate hypertension or pre-eclampsia.

* Examine her inner eyelids, tongue, and palms for pallor that could indicate anemia.
* Examine her eyes, tongue, and skin for signs of dehydration.
* Measure the fundal height and listen to fetal heart tones; palpate for uterine contractions. Note vaginal bleeding or leaking of fluid.
* Perform diagnostic testing: microscopy or RDT.

## Model Answers for Group 3

* Directly observe her as she swallows treatment according to the case management job aid (see Figure 11 in reference manual).
* Provide medication if temperature is ≥ 38 degrees C axillary (paracetamol 500 mg two tablets every 6 hours for 2 to 3 days).
* Provide iron/folic tablets with instructions on how to take them according to local protocol.
* Educate her on the benefits and use of ITNs and give her an ITN if she does not have one.
* Advise her on how to prevent mosquito bites (appropriate clothing that covers hands and legs, use of repellents, elimination of mosquito breeding places, etc.).
* Schedule follow-up appointment in 2 days.

## Model Answers for Group 4

* Diagnosis: severe malaria
* Management plans:
  + Immediately arrange referral to a higher-level clinic or hospital, where she will be treated with parenteral medications. Document physical exam, test findings, and medications administered on the referral form.
  + Give her a loading dose prior to referral. Women in all trimesters should receive either:
    - Parenteral artesunate 2.4 mg/kg as IV bolus or intramuscular as a loading dose
    - If artesunate is unavailable, intramuscular artemether should be given, and if this is unavailable, parenteral quinine should be started immediately until artesunate is obtained.

**Clinical Drill for Severe Malaria**

Clinical drills give learners the opportunity to observe and take part in an emergency rapid response system. Ideally, unscheduled emergency drills should be included in the workshop. Frequent drills help ensure that all members of the emergency team know their role and are able to respond rapidly. By the end of the workshop, learners will be able to conduct drills in their own facilities.

Directions

The facilitator writes each role on a separate card (see below). Select learners to play the roles. The day before the simulation is scheduled, give the cards to the selected learners so that they have time to prepare.

At the time the simulation is scheduled, the facilitator rings a small bell. The learners immediately assume their roles and demonstrate the actions needed to respond to the patient’s condition.

At the end of the simulation, the facilitator and learners discuss the simulation and identify any steps or tasks to do more effectively or rapidly.

Materials

* Pillow or crushed newpaper to put under clothing to denote a “pregnant” client
* Desks or tables with sheet and pillow for a “bed”
* Chairs for family members
* “Sink” drawn on flip chart; soap, towel, exam gloves, sharps box, trash container
* Blood pressure cuff, stethoscope, fetoscope, thermometer, clock or watch, malaria RDT
* “Oxygen” mask and tubing
* IV fluids and giving set, adhesive tape
* Syringe, vials of “diazepam” and “artesunate”
* Referral forms and medical record/client card

Roles

*Role 1: Thandiwe, the patient*

Thandiwe is 32 weeks pregnant. She was treated for uncomplicated malaria 2 days ago and returns to the clinic complaining of symptoms that are getting worse. While the provider is obtaining her history, Thandiwe collapses and begins convulsing.

*Role 2: Family member accompanying Thandiwe to the clinic Role 3: Skilled provider*

* Conducts rapid initial assessment, including blood pressure, pulse, respirations, and temperature. Orders a malaria RDT and urine for protein testing.
* When exam and test results are given, diagnoses probable severe malaria.
* Directs health staff (see below).
* Gives diazepam to treat convulsions.
* Begins treatment according to case management job aid:
  + Parenteral artesunate 2.4 mg/kg IV bolus or intramuscular as a loading dose, **or**
  + If artesunate is unavailable, intramuscular artemether is given, and if this is unavailable, then parenteral quinine is started immediately until artesunate is obtained.
* Writes referral note on flip chart (includes patient’s name, age, gravida, parity, and number of weeks pregnant; presenting symptoms; diagnosis; treatment provided; facility to which patient is being referred)

*Role 4: Health staff*

* Takes vital signs frequently. Assures good positioning of woman to guard airway. Protects from harm if convulsing. Gives oxygen.
* Starts IV fluids.
* Escorts family members away from bed so health providers can manage care. Keeps patient and family informed of situation.
* Arranges transportation for referral.
* Replenishes supplies/medications on emergency tray after use.

Group Discussion: Implications for Practice

Discuss the implications of applying malaria prevention and treatment practices in the learners’ countries, communities, and facilities.

* What are some of the constraints and barriers?
* What will facilitate implementing these measures?
* What things are not realistic and why?

Ask learners to develop an action plan for addressing malaria prevention and treatment in their facilities and communities using the action plan in the learner’s guide.

Note: Each plan should have no more than two or three goals.

# Action Plan for Learners

Learner Name: Country of Residence: Name of Facility:

Workshop Attended: Date:

Based on what you learned during this workshop, please write down three things that you would like to change at your facility over the next year to improve prevention and treatment of malaria during pregnancy using the platform of antenatal care.

Goal #1

Goal #2

Goal #3

My Support Team Network:

Supervisor: Trainer: Coworker(s):

Challenges to Address: (Describe the barriers that must be eliminated or reduced and how this will be done.)

Goal #1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activities/Steps** | **Date Planned** | **Responsible Person** | **Resources** | **Date Completed** |
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |

Goal #2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activities/Steps** | **Date Planned** | **Responsible Person** | **Resources** | **Date Completed** |
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |

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Goal #3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activities/Steps** | **Date Planned** | **Responsible Person** | **Resources** | **Date Completed** |
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |

# Postworkshop Knowledge Assessment

This knowledge assessment is designed to help the learners check their progress. By the end of the workshop, all learners are expected to achieve a score of 85% or better.

Read each question and circle the letter (a, b, or c) of the correct answer.

## ANC

1. What is the best time for the first antenatal contact?
   1. When the woman has vaginal bleeding
   2. Before the sixth month of pregnancy
   3. As soon as the woman thinks she may be pregnant
2. Topics for antenatal health education and counseling should:
   1. Be the same at each ANC contact.
   2. Address the woman’s individual needs and concerns.
   3. Include only what the provider thinks is important.
3. Early detection of complications and disease involves:
   1. Obtaining the woman’s history, performing a targeted physical exam, and obtaining necessary tests
   2. Basing diagnoses on signs and symptoms alone
   3. Explaining that the patient may not be susceptible to malaria because of where she lives

4. In response to the COVID-19 pandemic, ANC providers should:

a. Continue providing services as usual

b. Ensure modifications to ANC to protect clients as well as providers

c. Instruct women to stay away from all health care services while they are pregnant

## 

## Transmission of Malaria

1. Mosquitoes transmit malaria by:
   1. Laying eggs with mosquito parasites
   2. Biting people
   3. Contaminating food that people eat
2. Malaria parasites in the blood of a pregnant woman:
   1. Interfere with the transfer of nutrients (food) to the baby.
   2. Improve the blood flow to the placenta.
   3. Improve the flow of oxygen to the baby.
3. Among pregnant women, those at highest risk of malaria are:
   1. Women having their third pregnancy
   2. Women having their first pregnancy
   3. HIV-negative women

## 

## Prevention of Malaria

1. The benefit of an insecticide-treated net is that it:
   1. Reduces the number of mosquitoes in the house, both inside and outside the net.
   2. Can be used for catching fish.
   3. Will last for at least 10 years.
2. SP should not be given to pregnant women who are:
   1. Allergic to sulfa drugs
   2. Less than 24 weeks pregnant
   3. More than 36 weeks pregnant

## Treatment of Malaria

1. The treatment of uncomplicated MIP should include:
   1. First-line treatment according to national guidelines
   2. SP
   3. Withholding iron supplementation
2. If a woman with severe malaria is referred for treatment, the provider should:
   1. Tell the family they should be at the referral facility by the next day.
   2. Give a loading dose of the appropriate medication prior to referral.
   3. Make sure the family knows what to tell the providers at the referral facility.

# Postworkshop Knowledge Assessment: Answer Key

## ANC

1. What is the best time for the first antenatal contact?
   1. When the woman has vaginal bleeding
   2. Before the sixth month of pregnancy

### As soon as the woman thinks she may be pregnant

1. Topics for antenatal health education and counseling should:
   1. Be the same at each ANC contact.

### Address the woman’s individual needs and concerns.

* 1. Include only what the provider thinks is important.

1. Early detection of complications and disease involves:

### Obtaining the woman’s history, performing a targeted physical exam, and obtaining necessary tests

* 1. Basing diagnoses on signs and symptoms alone
  2. Explaining that the patient may not be susceptible to malaria because of where she lives

4. In response to the COVID-19 pandemic, ANC providers should:

a. Continue providing services as usual

**b. Ensure modifications to ANC to protect clients as well as providers**

c. Instruct women to stay away from all health care services while they are pregnant

## Malaria Transmission

1. Mosquitoes transmit malaria by:
   1. Laying eggs with mosquito parasites

### Biting people

* 1. Contaminating food that people eat

1. Malaria parasites in the blood of a pregnant woman:

### Interfere with the transfer of nutrients (food) to the baby.

* 1. Improve the blood flow to the placenta.
  2. Improve the flow of oxygen to the baby.

1. Among pregnant women, those at highest risk of malaria are:
   1. Women having their third pregnancy

### Women having their first pregnancy

* 1. HIV-negative women

## Malaria Prevention

1. The benefit of an insecticide-treated net is that it:

### Reduces the number of mosquitoes in the house, both inside and outside the net.

* 1. Can be used for catching fish.
  2. Will last for at least 10 years.

1. SP should not be given to pregnant women who are:

### Allergic to sulfa drugs

* 1. Less than 24 weeks pregnant
  2. More than 36 weeks pregnant

## Treatment of Malaria

1. The treatment of uncomplicated MIP should include:

### First-line treatment according to national guidelines

* 1. SP
  2. Withholding iron supplementation

1. If a woman with severe malaria is referred for treatment, the provider should:
   1. Tell the family they should be at the referral facility by the next day.

### Give a loading dose of the appropriate medication prior to referral.

* 1. Make sure the family knows what to tell providers at the referral facility.

# Prevention and Control of Malaria in Pregnancy Workshop Evaluation

**Please** answer all questions by circling the letter that corresponds to your answer.

1. Please indicate your occupation:
   1. Nurse
   2. Midwife
   3. Obstetrician/doctor
   4. Other health care worker
   5. Administrator
2. Please indicate the extent to which this workshop met your expectations:
   1. Exceeded my expectations.
   2. Met my expectations.
   3. Did not meet my expectations.

Please explain:

1. List the sessions(s) that you found most useful:
2. List the sessions(s) that you found least useful:
3. List other topics you would like to be included:
4. List two practices that you learned in this workshop that you will try to implement in your own clinical sites:
5. The workshop was (please circle one):
   1. Too long
   2. Too short
   3. The right length
6. Please rate the usefulness of the following learning tools by checking the appropriate box.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Tools** | **Very Useful** | **Useful** | **Not Useful** | **Comments** |
| Large-group discussions |  |  |  |  |
| Small-group discussions |  |  |  |  |
| Role-plays |  |  |  |  |
| Case studies |  |  |  |  |
| Clinical practice (if you went to a clinical site) |  |  |  |  |

1. Please rate the usefulness of the workshop materials by checking the appropriate box.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Very Useful** | **Useful** | **Not Useful** | **Comments** |
| Learner’s guide |  |  |  |  |
| Reference manual |  |  |  |  |
| Learning guides and checklists |  |  |  |  |

1. The facilitators used a variety of training techniques, including demonstration, coaching, feedback, group discussion, and others. Which did you find the most useful?
2. Were any of the training techniques useful or helpful? Which ones? Why?
3. What suggestions do you have for improving the workshop? Please be specific.

# Sample Certificate of Attendance

[Name of Organization Conducting Workshop]

*acknowledges that*

participated in the

Prevention and Control of Malaria in Pregnancy Workshop

conducted in (location) on (dates)

Organization Facilitator

# Malaria in Pregnancy Optional Clinical Observation and Practice

## Record of ANC Clients Seen

Each learner attending the optional clinical observation and practice portion of the Prevention and Control of Malaria in Pregnancy workshop should use this form to record the clients seen. A sample entry is provided as an example. Return the completed form to the facilitator at the end of the clinical sessions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | **Client Age** | **Duration of Pregnancy (in Weeks)** | **Type of Contact (and Consultation)** | **Comments** | **Signature of Facilitator** |
| 10/1/16 | 30 | 22 | Antenatal   * Malaria counseling * First dose of IPTp-SP | Client does not sleep under ITN. Was advised to get an ITN and use it throughout pregnancy and thereafter. |  |
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# Prevention and Control—Malaria in Pregnancy Skills Course: Individual and Group Assessment

Workshop: Dates: Clinical Facilitator(s):

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Question Numbers** | **Learner Numbers** | | | | | | | | | | | | | | | | | | | | | | | | | **Categories** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Antenatal Care |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Malaria Transmission |
| 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Malaria Prevention |
| 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Malaria Diagnosis and Treatment |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Score |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Presentation Thumbnails

# References

World Health Organization (WHO). 2002. *WHO Antenatal Care Randomized Trial: Manual for the Implementation of the New Model*. WHO: Geneva.

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