Basic Maternal and Newborn Care:

Basic Antenatal Care

Course Handbook for Participants
The Maternal and Neonatal Health (MNH) Program is committed to saving mothers’ and newborns’ lives by increasing the timely use of key maternal and neonatal health and nutrition practices. The MNH Program is jointly implemented by JHPIEGO, the Johns Hopkins University Center for Communication Programs, the Centre for Development and Population Activities, and the Program for Appropriate Technology in Health.
www.mnh.jhpiego.org

JHPIEGO, an affiliate of Johns Hopkins University, builds global and local partnerships to enhance the quality of health care services for women and families around the world. JHPIEGO is a global leader in the creation of innovative and effective approaches to developing human resources for health.
www.jhpiego.org

TRADEMARKS: All brand names and product names are trademarks or registered trademarks of their respective companies.

This publication was made possible through support provided by the Maternal and Child Health Division, Office of Health, Infectious Diseases and Nutrition, Bureau for Global Health, U.S. Agency for International Development, under the terms of Award No. HRN-00-98-00043-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

September 2004
ILLUSTRATED LECTURE HANDOUTS

Using Illustrated Lectures .................................................................55
Presentation 1A: Fundamentals of Basic Care........................................56
Presentation 1B: Key Tools in Basic Care I: Clinical Decision Making, Interpersonal
    Skills, Record Keeping .................................................................65
Presentation 1C: Key Tools in Basic Care II: Infection Prevention Practices........73
Presentation 2A: Introduction to Antenatal Care ....................................82
Presentation 2B: Basic Antenatal Care I: Assessment—History Taking ........91
Presentation 2C: Basic Antenatal Care II: Assessment—Physical Examination ...101
Presentation 2D: Basic Antenatal Care III: Assessment—Testing ...............109
Presentation 3A: Basic Antenatal Care IV: Care Provision .........................115
Presentation 3B: Additional Care I: Common Discomforts of Pregnancy ......129
Presentation 4A: Additional Care II: Special Needs of Pregnancy ...............143
Presentation 4B: Additional Care III: Special Needs of Pregnancy (continued).....160
Presentation 5: Additional Care IV: Life-Threatening Complications
    of Pregnancy ................................................................................173

COURSE EVALUATION
OVERVIEW

Training interventions to improve worker performance are among the most important aspects of performance management and support for human resources development. Healthcare providers must have the knowledge, attitudes, and skills required to perform their jobs in a competent and caring manner. Clinical training deals primarily with making sure that participants acquire the knowledge, attitudes, and skills needed to carry out a specific procedure or activity (e.g., antenatal care, infection prevention and control, or counseling for HIV testing) and helping participants apply this procedure or activity on the job. The goal of clinical training is to assist healthcare workers in learning to provide safe, high-quality reproductive healthcare services through improved work performance.

COMPETENCY-BASED TRAINING

This clinical training course is designed to enable participants to immediately apply, on the job, the new information and skill(s) they have learned, and thus improve their performance. The course uses a competency-based learning approach that focuses on the specific knowledge, attitudes, and skills needed to carry out a procedure or activity. Competency-based learning is learning by doing—learning that emphasizes how the participant performs (i.e., a combination of knowledge, attitudes, and, most important, skills). The trainer assesses participants’ skill competency by evaluating their overall performance.

Learning to perform a skill occurs in three stages:

Skill acquisition: The participant knows the steps and their sequence (if necessary) to perform the required skill or activity but needs assistance.

Skill competency: The participant knows the steps and their sequence (if necessary) and can perform the required skill or activity.

Skill proficiency: The participant knows the steps and their sequence (if necessary) and efficiently performs the required skill or activity.

In the first stage, skill acquisition, participants attend a series of interactive and participatory sessions conducted by the trainer. The trainer involves the participants through a variety of learning methods including the use of questions, role play, case studies, problem-solving activities, and other exercises. In addition, the trainer demonstrates skills through the role play or emergency drill in a simulated setting as
participants observe and follow the steps in a competency-based learning guide (see below). As participants practice these skills, the trainer observes, provides feedback, and encourages the participants to assess each other using the learning guide. Participants practice until they achieve skill competency and feel confident performing the procedure. The final stage, skill proficiency, occurs only with repeated practice over time.

The use of competency-based learning guides and checklists to measure clinical skills or other observable behaviors in comparison to a predetermined standard is an integral part of learning new skills. A learning guide contains the individual steps or tasks in sequence (if necessary) required to perform a skill or activity in a standard way.

A clinical skill or activity is standardized by identification of its essential steps. Each step is analyzed to determine the most efficient and safe way to perform and learn it. This process is called “standardization.” Once a procedure has been standardized, competency-based learning guides and checklists can be developed for it.

Learning guides

- help the participant learn the correct steps and sequence in which they should be performed (skill acquisition), and

- measure learning in small steps as the participant gains confidence and skill (skill competency).

Checklists are based on the learning guides and focus only on key steps or tasks. They allow the trainer to objectively assess a participant’s skill competency and overall performance.

**ASSESSMENT OF KNOWLEDGE AND SKILLS**

Assessment of participants’ knowledge and skills is an essential component of training and learning interventions. Participants should be aware of how and when they will be assessed. Assessment of their knowledge and skill performance should be made throughout the course using objective assessment methods, described below.

- Knowledge assessment occurs with the administration of a precourse questionnaire on the first day of the course. Participants score their own questionnaires because the purpose is to help them see the important content areas of the course.
• The trainer gives a midcourse questionnaire at the point during the course when all of the knowledge content has been presented. Participants must achieve a score of at least 85% to demonstrate that they have achieved the learning objectives. The trainer gives participants who did not achieve a score of at least 85% correct another opportunity to study and answer the items they missed.

• The trainer assesses participants’ skills using a performance checklist. Once participants demonstrate skill competency during the role play and emergency drill in a simulated setting, they progress to learn other skills, or, in some courses, to gain additional skill practice in a clinical setting with clients.

This means that participants know, from the beginning of the course, the basis upon which the trainer will assess their competency. In addition, participants will have an opportunity to practice the skill(s) using the same checklist the trainer will use. Assessment of learning in competency-based training is

• dynamic, because participants receive continual feedback and have ample opportunity for review and discussion with the trainer; and

• less stressful, because participants know from the beginning what they are expected to learn.

This interactive approach is the essence of competency-based training—and it is distinctly different from traditional training. In competency-based training, the participant is an active participant in the learning process. The trainer acts as a coach and is also actively involved in transferring new knowledge, attitudes, and skills through demonstration and regular feedback:

• Before skills practice—The trainer and participants meet briefly before each practice session to review the skill/activity, including the steps or tasks that will be emphasized during the session.

• During skills practice—The trainer observes, coaches, and provides feedback to the participant as s/he performs the steps or tasks outlined in the learning guide.

• After skills practice—Immediately after practice, the trainer uses the learning guide to discuss the strengths of the participant’s performance and also offer specific suggestions for improvement.
THE USE OF SIMULATIONS

Another key component of competency-based training is the use of simulations to provide participants the opportunity to practice new skills before working in an actual clinical site. Practicing with the role play or emergency drill in a simulated setting reduces stress for the participant. Only when participants have demonstrated skill competency and some degree of skill proficiency should they be allowed to apply their new skills in a clinical setting. Work with simulations also provides ample opportunity for practice before final evaluation for qualification in the clinical skill or activity being learned.

A SUPPORTIVE ENVIRONMENT FOR LEARNING

Competency-based training is most effective when there is a supportive environment at the participant’s workplace. In addition to the healthcare worker who attends the course and the trainer who conducts it, supervisors and coworkers play a critical role in helping to create and maintain this environment. All of these individuals have responsibilities before, during, and after a training course. By working as partners, they can help sustain the knowledge and skills learned during training and, ultimately, the quality of clinical services. This process is called “transfer of learning.” It is described in the next section.

TRANSFER OF LEARNING\(^1\)

> Transfer of learning is defined as ensuring that the knowledge and skills acquired during a learning intervention are applied on the job.

The clinical knowledge and skills of providers are a critical factor in providing high-quality healthcare services. However, providers may acquire new knowledge and skills only to find that they are unable to use, or transfer, these new skills at their workplace. There are several inter-related factors that support good performance in the workplace, as described below.

---

1. Job expectations
   *Do providers know what they are supposed to do?*
   - Provide adequate performance standards and detailed job descriptions.
   - Create the necessary channels to communicate job roles and responsibilities effectively.

2. Performance feedback
   *Do providers know how well they are doing?*
   - Offer timely, constructive, and comprehensive information about how well performance is meeting expectations.

3. Physical environment and tools
   *What is the work environment like, and what systems are in place to support it?*
   - Develop logistical and maintenance systems to provide a satisfactory physical environment and maintain adequate supplies and equipment.
   - Design work space to suit activities.

4. Motivation
   *Do people have a reason to perform as they are asked to perform? Does anyone notice?*
   - Seek provider input to identify incentives for good performance.
   - Provide positive consequences for good performance and neutral or negative consequences for below standard performance.
   - Encourage coworkers to support new skills.

5. Skills and knowledge to do the job
   *Do providers know how to do the job?*
   - Ensure job candidates have prerequisite skills.
   - Provide access to trainers and information resources.
   - Offer appropriate learning opportunities.

The final factor on the list, required knowledge and skills, is addressed primarily through training and learning interventions. Transfer of learning to the workplace is critical to improving job performance. The key individuals involved in this process include:

**Supervisors**—responsible for monitoring and maintaining the quality of services and ensuring that healthcare workers are properly supported in the workplace

**Trainers**—responsible for helping healthcare workers acquire the necessary knowledge and skills to perform well on the job

**Healthcare workers**—responsible for the delivery of high-quality services (e.g., clinicians, counselors, administrators, cleaners)

**Coworkers**—responsible for supporting participants while they are engaged in training and as they apply new knowledge and skills at the workplace

The “transfer of learning” process describes the tasks that supervisors, trainers, participants, and coworkers undertake before, during, and after training in order to ensure transfer of knowledge and skills to the workplace. The goal is for participants to transfer 100% of their new knowledge and skills to their jobs. The following matrix outlines these specific tasks. The tasks that trainers and participants should do during the learning experience appear in bold in the matrix.
## TRANSFER OF LEARNING MATRIX

<table>
<thead>
<tr>
<th></th>
<th>Before Learning</th>
<th>During Learning</th>
<th>After Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supervisors</strong></td>
<td>* Understand the performance need</td>
<td>* Participate in or observe training</td>
<td>* Monitor progress of action plans with participants and revise as needed</td>
</tr>
<tr>
<td></td>
<td>* Participate in any additional assessments required for training</td>
<td>* Protect participants from interruptions</td>
<td>* Conduct post-training debriefing with participants and coworkers</td>
</tr>
<tr>
<td></td>
<td>* Influence selection of participants</td>
<td>* Plan post-training debriefing</td>
<td>* Be a coach and role model—provide encouragement and feedback</td>
</tr>
<tr>
<td></td>
<td>* Communicate with trainers about the learning intervention</td>
<td>* Provide supplies and space and schedule opportunities for participants to practice</td>
<td>* Evaluate participants’ performance</td>
</tr>
<tr>
<td></td>
<td>* Help participants create a preliminary action plan</td>
<td></td>
<td>* Stay in contact with trainers</td>
</tr>
<tr>
<td></td>
<td>* Support and encourage participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trainers</strong></td>
<td>* Validate and supplement the results of the performance needs assessment</td>
<td>* Provide work-related exercises and appropriate job aids</td>
<td>* Conduct follow-up activities in a timely manner</td>
</tr>
<tr>
<td></td>
<td>* Use instructional design and learning principles to develop or adapt the course</td>
<td>* Give immediate and clear feedback</td>
<td>* Help strengthen supervisors’ skills</td>
</tr>
<tr>
<td></td>
<td>* Send the course syllabus, objectives and precourse learning activities in advance</td>
<td>* Help participants develop realistic action plans</td>
<td>* Facilitate review of action plans with supervisors and participants</td>
</tr>
<tr>
<td><strong>Participants</strong></td>
<td>* Participate in needs assessments and planning</td>
<td>* Participate actively in the course</td>
<td>* Share observations with supervisors and participants</td>
</tr>
<tr>
<td></td>
<td>* Review course objectives and expectations and prepare preliminary action plans</td>
<td>* Develop realistic action plans for transferring learning</td>
<td>* Maintain communication with supervisors and participants</td>
</tr>
<tr>
<td></td>
<td>* Begin establishing a support network</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Complete precourse learning activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Coworkers and others</strong></td>
<td>* Participate in needs assessments and discussions of the training’s intended impact</td>
<td>* Complete participants’ reassigned work duties</td>
<td>* Be supportive of participants’ accomplishments</td>
</tr>
<tr>
<td></td>
<td>* Ask participants to bring back key learning points to share with the work group</td>
<td>* Participate in learning exercises at the request of participants</td>
<td></td>
</tr>
</tbody>
</table>

As reflected in the matrix, transfer of learning is a complex process. An action plan can help make the process easier for all of the individuals involved. An action plan is a written document that describes the steps that supervisors, trainers, participants, and coworkers will complete to help maximize the transfer of learning. An action plan should be initiated before the training intervention so that everyone who can support the transfer of learning is involved.
from the beginning. The participants refine their plan during the training course and usually do not complete it until after the course when they are using their new skills on the job. The content and layout of an action plan should support the users of the plan, especially the participants. In developing an action plan, keep in mind these important points:

- Write activities as discrete steps that are realistic, measurable, and attainable.
- Identify clear responsibilities for participants, supervisors, coworkers, and trainers.
- Develop a specific time schedule for completing activities.
- Identify resources necessary to complete the activities, including plans for acquiring those resources.
- Instruct participants to use a learning journal to help facilitate the development of an action plan. A learning journal is a notebook in which participants document issues, problems, additional skills they need to develop, and questions that arise as they apply their new knowledge and skills on the job.

If time permits, the development of an action plan can be included in the training course. If it is not, however, participants can take the initiative to develop an action plan on their own. See page 8 for an example of a completed action plan. This example is more detailed than may be necessary in a given situation. The level of detail required should depend on the performance problem and the learning intervention being undertaken. A blank action plan format can be found on page 9. Participants may copy this for their use or develop their own format.
EXAMPLE OF A COMPLETED ACTION PLAN

**Action Plan Goal:** Implementation of the New National Guidelines for Essential Maternal and Neonatal Care (EMNC)

**Facility:** Mercy Hospital

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>WHO DOES IT?</th>
<th>RESOURCES NEEDED</th>
<th>DATE NEEDED</th>
<th>HOW TO MONITOR THE ACTIVITY</th>
<th>RESULT AND HOW TO MEASURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquire sufficient quantities of the service delivery guidelines to serve the needs of the facility.</td>
<td>Sister-in-charge</td>
<td>Copies of the service provision guidelines</td>
<td>31 March 2004</td>
<td>Copies of the service provision guidelines are available and used by all staff.</td>
<td>By December 2004, 90% of doctors and nurses will be providing basic maternal and newborn care services according to new national service provision guidelines. Observe clinical practice in comparison with clinical protocols.</td>
</tr>
<tr>
<td>Conduct orientation of all staff from the Antenatal Clinic.</td>
<td>Sister-in-charge and senior nurse/midwife</td>
<td>Copies of the service provision guidelines</td>
<td>31 May 2004</td>
<td>Staff demonstrates familiarity with contents of service provision guidelines through participatory discussion led by sister-in-charge.</td>
<td></td>
</tr>
<tr>
<td>Form Job Aids Committee.</td>
<td>Senior nurse/midwife</td>
<td>None</td>
<td>31 May 2004</td>
<td>Committee exists and is creating job aids.</td>
<td></td>
</tr>
<tr>
<td>Have Job Aids Committee review guidelines and identify clinical protocols to post on the walls of the Antenatal Clinic.</td>
<td>Senior nurse/midwife</td>
<td>Copies of the service provision guidelines, pen and paper</td>
<td>15 June 2004</td>
<td>Observe minutes of the meeting.</td>
<td></td>
</tr>
<tr>
<td>Make enlarged photocopies of the selected clinical protocols.</td>
<td>Job Aids Committee representative</td>
<td>Transport and funds to make photocopies</td>
<td>21 June 2004</td>
<td>Photocopies exist.</td>
<td></td>
</tr>
<tr>
<td>Post clinical protocols on the walls and show to staff.</td>
<td>Job Aids Committee representative</td>
<td>Tape</td>
<td>30 June 2004</td>
<td>Observe that protocols are posted on the walls and referred to on a regular basis.</td>
<td></td>
</tr>
</tbody>
</table>
EXAMPLE OF A BLANK ACTION PLAN

Performance Gap Addressed: ________________________________________________

Action Plan Goal: _________________________________________________________

Facility: __________________________________________________________________

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>WHO DOES IT?</th>
<th>RESOURCES NEEDED</th>
<th>DATE NEEDED</th>
<th>HOW TO MONITOR THE ACTIVITY</th>
<th>RESULT AND HOW TO MEASURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

TRAINING IN BASIC ANTENATAL CARE

Antenatal care (ANC) is the care provided throughout pregnancy to help ensure that women go through pregnancy and childbirth in good health and that their newborns are healthy. The emphasis in this training course is on focused ANC, which relies on evidence-based interventions provided to women during pregnancy by skilled healthcare providers such as midwives, doctors, and nurses with midwifery and life-saving skills. Focused ANC includes assessment of maternal and fetal well-being, preventive measures, preparation of a birth plan including complication readiness, and health messages and counseling.

USING THE ANTENATAL CARE TRAINING PACKAGE

In designing the training materials for this course, particular attention has been paid to making them “user friendly” and to permitting the course participants and clinical trainer the widest possible latitude in adapting the training to the participants' (group and individual) learning needs. For example, at the beginning of the course, an assessment is made of each participant's knowledge. The participants and trainer(s) use the results of this precourse assessment to adapt the course content as needed so that the training focuses on acquisition of new information and skills.

A second feature relates to the use of the reference manual and course handbook. The reference manual is designed to provide all of the essential information needed to conduct the course in a logical manner. Because it serves as the “text” for the participants and the “reference source” for the trainer, special handouts or supplemental materials are not needed. In addition, because the manual only contains information that is consistent with the course goals and objectives, it becomes an integral part of all classroom activities, such as giving an illustrated lecture or leading a discussion.

The reference manual used for this course is Basic Maternal and Newborn Care: A Guide for Skilled Providers (BMNC):

- Section One: Fundamentals of Basic Care (Chapters 1 through 3);
- Section Two: Core Components of Basic Care (Chapters 4 and 5);
- Section Three: Additional Care (Chapters 9 through 11—selections relevant to ANC); and

- Section Four: Annexes (Annex 5—selections relevant to ANC; and Annexes 6 and 7).

The course handbook, on the other hand, serves a dual function. First, and foremost, it is the road map that guides the participant through each phase of the course. It contains the course syllabus and course schedule, as well as all supplemental printed materials needed during the course, including precourse questionnaire, competency-based skills learning guide and practice checklist, case studies, role play, and other exercises; instructions for using the tools; illustrated lecture handouts; and the course evaluation.

The trainer’s notebook contains the same material as the course handbook for participants as well as material for the trainer, including answer keys for the questionnaires, competency-based skills checklist, case studies, role play, and other exercises; instructions for conducting activities; and additional guidance for trainers.

### COURSE DESIGN

The course builds on each participant's past knowledge and takes advantage of her/his high motivation to accomplish the learning tasks in the minimum time. Training emphasizes doing, not just knowing, and uses competency-based evaluation of performance.

Specific characteristics of this course are as follows:

- During the morning of the first day, participants demonstrate their knowledge of antenatal care by completing a written assessment (Precourse Questionnaire).

- Classroom and clinical sessions focus on key aspects of antenatal care.

- Progress in knowledge-based learning is measured during the course using a standardized written assessment (Knowledge Questionnaire).

- Clinical skills training builds on the participant's previous experience relevant to antenatal care. For some of the skills, participants practice first in a simulated setting, using learning guides that list the key steps in performing the skills/procedures for antenatal care. In this way, they learn the skills needed more quickly and in a standardized way.
Progress in learning new skills is documented using the clinical skills learning guides.

A clinical trainer uses a competency-based skills checklist to evaluate each participant's performance.

Participants learn and are evaluated in clinical decision-making through case studies and simulated exercises and during clinical practice with clients.

Participants learn appropriate interpersonal skills through behavior modeling and role play and are evaluated during clinical practice with clients.

Successful completion of the course is based on successful completion of the knowledge and skills components, as well as satisfactory overall performance in providing focused ANC.

EVALUATION

This clinical training course is designed to produce healthcare providers (i.e., doctors, midwives, and nurses with midwifery and life-saving skills) who are qualified to provide focused ANC. Qualification is a statement by the training institution(s) that the participant has met the requirements of the course in knowledge, skills, and practice. Qualification does not imply certification. Only an authorized organization or agency can certify personnel.

Qualification is based on the participant's achievement in three areas:

- **Knowledge**—A score of at least 85% on the Knowledge Assessment Questionnaire
- **Skills**—Satisfactory performance of clinical skills for antenatal care
- **Practice**—Demonstrated ability to provide antenatal care in the clinical setting

The participant and the trainer share responsibility for the qualification of the participant.

The evaluation methods used in the course are described briefly below:

- **Knowledge Assessment Questionnaire.** Knowledge will be assessed at the end of the course. A score of 85% or more correct indicates knowledge-based mastery of the material presented.
during classroom sessions. For those participants scoring less than 85% on their first attempt, the clinical trainer should review the results with the participant individually and guide her/him on using the reference manual(s) to learn the required information. Arrangements should be made for participants scoring less than 85% to complete the Knowledge Assessment Questionnaire again.

- **Clinical Skills.** The clinical trainer will use a skills checklist to evaluate each participant as they perform the skills and procedures needed to provide antenatal care. Participants should be able to perform all of the steps/tasks for a particular skill/procedure, before the trainer assesses skill competency using the relevant checklist. Assessment of competency may take place in the simulated setting and then at a clinical site or only at a clinical site, depending on the skill being assessed. In addition, case studies will be used to assess problem-solving and decision-making skills. Evaluation of the interpersonal communication skills of each participant may take place at any time during the course through observation of participants during the role play, whereas evaluation of the clinical skills, including problem-solving and decision-making skills, will take place at various points throughout the course.

- **Clinical Practice.** During the course, it is the clinical trainer's responsibility to observe each participant's overall performance in providing antenatal care. This includes observing the participant's attitude—a critical component of quality service provision—to women attending antenatal clinic and to co-workers. Through this observation, the clinical trainer assesses how effectively the participant uses what s/he has learned.

**COURSE SYLLABUS**

**Course Description.** This 6-day clinical training course is designed to prepare participants to provide focused ANC.

**Course Goals**

- To influence in a positive way the attitude of the participant toward focused ANC.

- To provide the participant with the knowledge and clinical skills needed to support and maintain maternal and fetal well-being throughout normal pregnancy and childbirth.

- To enable the participant to recognize and respond to a pregnant woman who is experiencing life-threatening complications.
Participant Learning Objectives

By the end of the training course, the participant will be able to:

1. Describe the fundamentals of basic maternal and newborn care and their application to antenatal care.

2. Use the recommended clinical decision-making framework when providing antenatal care.

3. Use interpersonal communication techniques that help the provider develop a caring and trusting relationship with the woman while providing antenatal care.

4. Use recommended infection prevention practices while providing antenatal care.

5. After a quick check has been conducted, take an antenatal history, including personal information, menstrual and contraceptive history, present pregnancy, daily habits and lifestyle, obstetric history, medical history, and interim history.

6. Perform an antenatal physical examination, including assessment of well-being, blood pressure measurement, visual inspection of breasts, abdominal examination, and genital examination.

7. Perform basic testing procedures as follows: hemoglobin level, RPR test (or refer for VDRL), HIV test (accompanied by counseling, as shown below), blood group and RH, and urine for diabetes (if applicable).

8. Help the woman develop a birth plan that includes preparations for a normal birth and possible complications.

9. Provide health messages and counseling about nutrition; self-care and other healthy practices (use of potentially harmful substances, prevention of infection, hygiene, rest and activity, sexual relations and safer sex, early and exclusive breastfeeding, and family planning); and HIV (pre- and post-test counseling).

10. Provide immunization and other preventive measures, as needed, including tetanus toxoid immunization, iron/folate, and—in areas endemic for these diseases and deficiencies—intermittent preventive treatment for malaria, presumptive treatment for hookworm infestation, vitamin A supplementation, and iodine supplementation.
11. Differentiate between signs and symptoms of the common discomforts of pregnancy and alert signs, which may indicate a problem.

12. Explain the anatomic/physiologic basis for common discomforts of pregnancy and counsel about prevention and relief measures.

13. Identify women with special needs during pregnancy and address these needs appropriately.

14. Explain the recognition and appropriate response to life-threatening complications that may arise during pregnancy.

**Training/Learning Methods**

- Illustrated lectures and group discussions
- Case studies
- Role play and other exercises
- Simulated practice
- Guided clinical activities (assessing and providing care for women requiring antenatal care)

**Learning Materials**

- Presentation graphics
- Instruments and equipment:
  - For general classroom activities: overhead projector and screen, flipchart with markers
  - For learning activities: pregnancy calculators (wheels), calendars, antenatal record cards
  - For the infection prevention demonstration: soap/antiseptic hand cleanser, nail brush, gloves, plastic apron, instruments, needles and syringes, plastic receptacles, chlorine solution
  - For clinic-based activities (See the Annex 2 in the reference manual.)
Participant Selection Criteria

- Participants for this course should be practicing clinicians (doctors, midwives, and/or nurses with midwifery and life-saving skills) who provide or will provide antenatal care.
- Participants should have the support of their supervisors or managers to attend the course, and their supervisors should be willing to support transfer of learning at the participant’s job site.

Methods of Evaluation

Participant

- Precourse and Knowledge Assessment Questionnaires
- Learning Guide and Checklist for Antenatal Assessment (History, Physical Examination, Testing) and Care

Course

- Course Evaluation (to be completed by each participant)

Course Duration

- 12 sessions in a 6-day sequence

Suggested Course Composition

- Up to 20 participants
- 1 clinical trainer for every 4 to 5 participants
**MODEL ANTENATAL CARE COURSE SCHEDULE (6 days, 12 sessions)**

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>DAY 2</th>
<th>DAY 3</th>
<th>DAY 4</th>
<th>DAY 5</th>
<th>DAY 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.M. (3.5 Hours)</strong></td>
<td><strong>A.M. (3.5 Hours)</strong></td>
<td><strong>A.M. (3.5 Hours)</strong></td>
<td><strong>A.M. (3.5 Hours)</strong></td>
<td><strong>A.M. (3.5 Hours)</strong></td>
<td><strong>A.M. (3.5 Hours)</strong></td>
</tr>
<tr>
<td><strong>Opening:</strong></td>
<td><strong>Opening:</strong></td>
<td><strong>Opening:</strong></td>
<td><strong>Opening:</strong></td>
<td><strong>Opening:</strong></td>
<td><strong>Opening:</strong></td>
</tr>
<tr>
<td>• Welcome</td>
<td>• Welcome</td>
<td>• Welcome</td>
<td>• Welcome</td>
<td>• Welcome</td>
<td>• Welcome</td>
</tr>
<tr>
<td>• Participant introductions</td>
<td>• Participant introductions</td>
<td>• Participant introductions</td>
<td>• Participant introductions</td>
<td>• Participant introductions</td>
<td>• Participant introductions</td>
</tr>
<tr>
<td>• Participant expectations</td>
<td>• Participant expectations</td>
<td>• Participant expectations</td>
<td>• Participant expectations</td>
<td>• Participant expectations</td>
<td>• Participant expectations</td>
</tr>
<tr>
<td><strong>Overview of the Course:</strong></td>
<td><strong>Overview of the Course:</strong></td>
<td><strong>Overview of the Course:</strong></td>
<td><strong>Overview of the Course:</strong></td>
<td><strong>Overview of the Course:</strong></td>
<td><strong>Overview of the Course:</strong></td>
</tr>
<tr>
<td>• Goals, objectives, schedule</td>
<td>• Goals, objectives, schedule</td>
<td>• Goals, objectives, schedule</td>
<td>• Goals, objectives, schedule</td>
<td>• Goals, objectives, schedule</td>
<td>• Goals, objectives, schedule</td>
</tr>
<tr>
<td>• Approach to training</td>
<td>• Approach to training</td>
<td>• Approach to training</td>
<td>• Approach to training</td>
<td>• Approach to training</td>
<td>• Approach to training</td>
</tr>
<tr>
<td>• Review of course materials</td>
<td>• Review of course materials</td>
<td>• Review of course materials</td>
<td>• Review of course materials</td>
<td>• Review of course materials</td>
<td>• Review of course materials</td>
</tr>
<tr>
<td><strong>Precourse Questionnaire:</strong></td>
<td><strong>Precourse Questionnaire:</strong></td>
<td><strong>Precourse Questionnaire:</strong></td>
<td><strong>Precourse Questionnaire:</strong></td>
<td><strong>Precourse Questionnaire:</strong></td>
<td><strong>Precourse Questionnaire:</strong></td>
</tr>
<tr>
<td>• Assess participants’ precourse knowledge</td>
<td>• Assess participants’ precourse knowledge</td>
<td>• Assess participants’ precourse knowledge</td>
<td>• Assess participants’ precourse knowledge</td>
<td>• Assess participants’ precourse knowledge</td>
<td>• Assess participants’ precourse knowledge</td>
</tr>
<tr>
<td>• Identify individual and group learning needs</td>
<td>• Identify individual and group learning needs</td>
<td>• Identify individual and group learning needs</td>
<td>• Identify individual and group learning needs</td>
<td>• Identify individual and group learning needs</td>
<td>• Identify individual and group learning needs</td>
</tr>
<tr>
<td><strong>Illustrated Lecture-Discussion (PPT1A): Fundamentals of basic care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
</tr>
<tr>
<td><strong>P.M. (3.5 Hours)</strong></td>
<td><strong>P.M. (3.5 Hours)</strong></td>
<td><strong>P.M. (3.5 Hours)</strong></td>
<td><strong>P.M. (3.5 Hours)</strong></td>
<td><strong>P.M. (3.5 Hours)</strong></td>
<td><strong>P.M. (3.5 Hours)</strong></td>
</tr>
<tr>
<td><strong>Illustrated Lecture-Discussion (PPT1B):</strong> Key tools in basic care:</td>
<td><strong>Illustrated Lecture-Discussion (PPT1B):</strong> Key tools in basic care:</td>
<td><strong>Illustrated Lecture-Discussion (PPT1B):</strong> Key tools in basic care:</td>
<td><strong>Illustrated Lecture-Discussion (PPT1B):</strong> Key tools in basic care:</td>
<td><strong>Illustrated Lecture-Discussion (PPT1B):</strong> Key tools in basic care:</td>
<td><strong>Illustrated Lecture-Discussion (PPT1B):</strong> Key tools in basic care:</td>
</tr>
<tr>
<td>• Clinical decision-making</td>
<td>• Clinical decision-making</td>
<td>• Clinical decision-making</td>
<td>• Clinical decision-making</td>
<td>• Clinical decision-making</td>
<td>• Clinical decision-making</td>
</tr>
<tr>
<td>• Interpersonal skills</td>
<td>• Interpersonal skills</td>
<td>• Interpersonal skills</td>
<td>• Interpersonal skills</td>
<td>• Interpersonal skills</td>
<td>• Interpersonal skills</td>
</tr>
<tr>
<td>• Record keeping</td>
<td>• Record keeping</td>
<td>• Record keeping</td>
<td>• Record keeping</td>
<td>• Record keeping</td>
<td>• Record keeping</td>
</tr>
<tr>
<td><strong>Role Play:</strong> Listening to the antenatal client</td>
<td><strong>Role Play:</strong> Listening to the antenatal client</td>
<td><strong>Role Play:</strong> Listening to the antenatal client</td>
<td><strong>Role Play:</strong> Listening to the antenatal client</td>
<td><strong>Role Play:</strong> Listening to the antenatal client</td>
<td><strong>Role Play:</strong> Listening to the antenatal client</td>
</tr>
<tr>
<td><strong>Illustrated Lecture-Discussion (PPT1C):</strong> Key tools in basic care: infection prevention practices</td>
<td><strong>Illustrated Lecture-Discussion (PPT1C):</strong> Key tools in basic care: infection prevention practices</td>
<td><strong>Illustrated Lecture-Discussion (PPT1C):</strong> Key tools in basic care: infection prevention practices</td>
<td><strong>Illustrated Lecture-Discussion (PPT1C):</strong> Key tools in basic care: infection prevention practices</td>
<td><strong>Illustrated Lecture-Discussion (PPT1C):</strong> Key tools in basic care: infection prevention practices</td>
<td><strong>Illustrated Lecture-Discussion (PPT1C):</strong> Key tools in basic care: infection prevention practices</td>
</tr>
<tr>
<td><strong>Skill Demonstration:</strong> Infection prevention practices</td>
<td><strong>Skill Demonstration:</strong> Infection prevention practices</td>
<td><strong>Skill Demonstration:</strong> Infection prevention practices</td>
<td><strong>Skill Demonstration:</strong> Infection prevention practices</td>
<td><strong>Skill Demonstration:</strong> Infection prevention practices</td>
<td><strong>Skill Demonstration:</strong> Infection prevention practices</td>
</tr>
<tr>
<td><strong>Review of Day’s Activities</strong></td>
<td><strong>Review of Day’s Activities</strong></td>
<td><strong>Review of Day’s Activities</strong></td>
<td><strong>Review of Day’s Activities</strong></td>
<td><strong>Review of Day’s Activities</strong></td>
<td><strong>Review of Day’s Activities</strong></td>
</tr>
<tr>
<td><strong>Reading Assignment:</strong> BMNC—Section 1: Chapters 1 to 3; Section 2: Chapters 4 and 5 (through “Antenatal Assessment”); Section 4: Annexes 6 and 7</td>
<td><strong>Reading Assignment:</strong> BMNC—Section 2: Chapter 5 (through “Antenatal Care Provision”); Section 3: Chapter 9 (pages 3-1 to 3-24—all pregnancy-related entries); Section 4: Annex 5</td>
<td><strong>Reading Assignment:</strong> BMNC—Section 3: Additional Care: Chapter 10 (pages 3-35 to 3-73—all entries except “Breech presentation” and “Postpartum sadness”; 3-81 and 3-82)</td>
<td><strong>Reading Assignment:</strong> BMNC—Section 3: Additional Care: Chapter 11 (pages 3-89 to 3-102, 3-108, 3-110 to 3-113, 3-115 to 3-121 except “Pus, redness...” and “Severe abdominal pain after childbirth”).</td>
<td><strong>Reading Assignment:</strong> Prepare for Knowledge Assessment Questionnaire; review Learning Guide; use practice Checklist</td>
<td><strong>Reading Assignment:</strong> BMNC—Section 3: Additional Care: Chapter 11 (pages 3-89 to 3-102, 3-108, 3-110 to 3-113, 3-115 to 3-121 except “Pus, redness...” and “Severe abdominal pain after childbirth”).</td>
</tr>
</tbody>
</table>
PRE COURSE QUESTIONNAIRE

HOW THE RESULTS WILL BE USED

The main objective of the Precourse Questionnaire is to assist both the clinical trainer and the participant as they begin their work together in the course by assessing what participants, individually and as a group, know about the course topic. This allows the clinical trainer to identify topics that may need additional emphasis during the course. Providing the results of the precourse assessment to the participants enables them to focus on their individual learning needs. In addition, the questions alert participants to the content that will be presented in the course.

The questions are presented in the true-false format. A special form, the Individual and Group Assessment Matrix (page 24), is provided to record the scores of all course participants. Using this form, the clinical trainer and participants can quickly chart the number of correct answers for each of the 25 questions. By examining the data in the matrix, the group members can easily determine their collective strengths and weaknesses and jointly plan the desired learning objectives.

For the clinical trainer, the questionnaire results will identify particular topics that may need additional emphasis during the learning sessions. Conversely, for those categories where 85% or more of participants answer the questions correctly, the clinical trainer may elect to use some of the allotted time for other purposes. For example, if the participants as a group did well (85% or more correct) in answering the questions in the category “Fundamentals of Basic Care” (Questions 1 through 5), the clinical trainer may elect to assign Section 1 of the reference manual as homework rather than discussing this information in class.

For the participants, the learning objective(s) related to each question and the corresponding chapter(s) in the reference manual are noted beside the answer column. To make the best use of the limited course time, participants are encouraged to address their individual learning needs by studying the designated chapter(s).
PREcourses QUESTIONNAIRE

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

FUNDAMENTALS OF BASIC CARE

1. The single most critical intervention for saving the lives of women and newborns is the presence of a skilled caregiver at birth, supported by transport if emergency referral is required. _______ Participant Objective 1 (Section 1: Chapter 1)

2. The clinical decision-making process is based entirely on the information obtained from the client and her record. _______ Participant Objective 2 (Section 1: Chapter 3)

3. Effective communication is critical to the development of a trusting relationship with clients. _______ Participant Objective 3 (Section 1: Chapter 3)

4. Handwashing should be carried out only after contact with clients known to be infectious. _______ Participant Objective 4 (Section 1: Chapter 3)

BASIC ANTENATAL ASSESSMENT

5. The estimated date of childbirth (EDC) should be calculated based on the last day of the woman’s last menstrual period. _______ Participant Objective 5 (Section 2: Chapter 5)

6. The fundus is palpable just above the symphysis pubis at 16 weeks’ gestation. _______ Participant Objective 6 (Section 2: Chapter 5)

7. If the systolic blood pressure of a pregnant woman is less than 90 mmHg, it is considered normal. _______ Participant Objective 6 (Section 2: Chapter 5)

8. The normal fetal heart rate range during pregnancy (before labor) is 120-160 beats per minute. _______ Participant Objective 6 (Section 2: Chapter 5)

9. At 36 weeks’ gestation, the fetus is normally longitudinal in lie and in cephalic/vertex presentation. _______ Participant Objective 6 (Section 2: Chapter 5)

10. A hemoglobin level of 7-11 g/dL indicates severe anemia. _______ Participant Objective 7 (Section 2: Chapter 5)

11. HIV testing should be offered on each subsequent visit, even if the woman told you at her visit that she does not want to be tested. _______ Participant Objective 7 (Section 2: Chapter 5)
BASIC ANTENATAL CARE PROVISION

12. The birth plan should be developed at the first antenatal visit and reviewed and updated on return visits.  
   Participant Objective 8  
   (Section 2: Chapter 5)

13. Knowing the danger signs of pregnancy and childbirth will help the woman and her family recognize and respond to complications.  
   Participant Objective 8  
   (Section 2: Chapter 5)

14. Health messages and counseling should be individualized and aim at helping the woman to stay healthy during pregnancy.  
   Participant Objective 9  
   (Section 2: Chapter 5)

15. Early and exclusive breastfeeding provides the best nutrition for the newborn.  
   Participant Objective 9  
   (Section 2: Chapter 5)

16. Foods rich in vitamin C may inhibit iron absorption.  
   Participant Objective 10  
   (Section 2: Chapter 5)

17. A woman should wait until after her first trimester (3 months) of pregnancy to receive her first tetanus toxoid immunization.  
   Participant Objective 10  
   (Section 2: Chapter 5)

COMMON DISCOMFORTS

18. One relief measure for dizziness and fainting during pregnancy is to advise the woman to get up slowly from a sitting or lying position.  
   Participant Objective 11  
   (Section 3: Chapter 9)

19. Abdominal cramps and twinges during pregnancy are almost always associated with a serious complication.  
   Participant Objective 12  
   (Section 3: Chapter 9)

SPECIAL NEEDS

20. If a woman reports abuse, acknowledge her situation by making a statement such as “Many women face abuse at home, so you should not be afraid or let it affect your pregnancy.”  
   Participant Objective 13  
   (Section 3: Chapter 10)

21. If an HIV-positive mother wants to breastfeed, but wants to minimize the risk of transmitting the infection to her baby, she should use “mixed feeding” (alternating breastfeeding with replacement feeding).  
   Participant Objective 13  
   (Section 3: Chapter 10)
LIFE-THREATENING COMPLICATIONS

22. Rapid initial assessment and, if necessary, stabilization procedures are essential for responding to women who experience life-threatening complications during pregnancy and childbirth.  


24. The emergency treatment of choice for a pregnant woman with eclampsia is 10 mg diazepam IV.
INDIVIDUAL AND GROUP ASSESSMENT MATRIX

<table>
<thead>
<tr>
<th>QUESTION NUMBER</th>
<th>CORRECT ANSWERS (PARTICIPANTS)</th>
<th>CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2  3  4  5  6  7  8  9  10 11 12 13 14 15 16 17 18 19 20</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>FUNDAMENTALS OF BASIC CARE</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>BASIC ANTENATAL ASSESSMENT</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BASIC ANTENATAL CARE PROVISION</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>COMMON DISCOMFORTS</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SPECIAL NEEDS</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>LIFE-THREATENING COMPLICATIONS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ROLE PLAY AND EXERCISE

USING THE ROLE PLAY AND EXERCISE

Role Play: Listening to the Antenatal Client

The purpose of the role play is to provide an opportunity for learners to understand the importance of good interpersonal communication skills when providing antenatal care. The emphasis in the role play is on good listening skills. There are directions for the trainer, together with discussion questions to facilitate discussion after the role play. There is also an answer key. It is important for the trainer to become familiar with the answer key before conducting the role play. Although the key contains “likely” responses, other responses provided by participants may be equally acceptable.

Exercise: Calculating the EDC

The exercise is designed to help the participant practice calculating the estimated date of childbirth (EDC). Instructions are provided for the trainer and the resources required for the exercise are listed. An answer key is also provided for the trainer to use after participants have completed the exercise.
ROLE PLAY 1: LISTENING TO THE ANTENATAL CLIENT

DIRECTIONS

The trainer will select two participants to perform the following roles: healthcare provider and antenatal client. The two participants taking part in the role play should take a few minutes to prepare for the activity by reading the background information provided below. The remaining participants, who will observe the role play, should also read the background information before the role play begins.

The purpose of the role play is to provide an opportunity for participants to understand the importance of good listening skills when providing antenatal care.

PARTICIPANT ROLES

Healthcare provider: The healthcare provider is an experienced midwife who has good listening skills.

Client: Mrs. A is 19 years old. This is her second pregnancy.

SITUATION

Mrs. A is 20 weeks’ pregnant and generally healthy. This is her second antenatal visit for this pregnancy. She has not had any pregnancy-related problems so far. Her first pregnancy was uncomplicated. She is not comfortable about being at the clinic because the midwife who provided antenatal care in her first pregnancy did not listen to what she had to say. In addition, the midwife she saw 2 months ago on her first visit for this pregnancy was hurried and did not listen to her. However, her mother-in-law has sent her to the clinic today. The midwife senses the client's discomfort as she starts taking the interim antenatal history; she decides to use listening skills to make Mrs. A feel comfortable.

FOCUS OF THE ROLE PLAY

The focus of the role play is the interpersonal interaction between the midwife and the woman, specifically appropriate listening skills.
EXERCISE 1: CALCULATING THE ESTIMATED DATE OF CHILDBIRTH (EDC)

PURPOSE

The purpose of this exercise is to enable participants to practice calculating the estimated date of childbirth (EDC).

INSTRUCTIONS

The exercise can be done in small groups or individually.

- The trainer should review the method for calculating the EDC with participants.
- Participants should answer Questions 1 through 5.
- The trainer should distribute pregnancy calculators (gestational wheels) to participants and demonstrate how to use them.
- Participants should answer Questions 1 through 5 again, this time using pregnancy calculators. They should then compare the results with their original calculations.
- If pregnancy calculators are not available, the trainer should review participants' original calculations for accuracy.

RESOURCES

- Calendars
- Pregnancy calculators (gestational wheels)
- Guidelines for calculating the EDC (BMNC, page 2-9)
- Questions 1 through 5 (next page)
- Answer Key to Questions 1 through 5 (trainer’s notebook)
EXERCISE 1: CALCULATING THE EDC

CALCULATING THE EDC

1. **Due Date—Calendar Method**  
   - Add seven days to the date of the first day of the last normal menstrual period.  
   - Subtract three months

2. **Gestation and Due Date—Gestation Wheel Method**  
   - Calculate on the gestation/pregnancy wheel (if available)

QUESTIONS (STATE MONTH, DATE, AND YEAR)

1. Mrs. A comes to antenatal clinic on 3 January. She tells you that her last normal menstrual period started on 10 October. What is her EDC?

2. Mrs. B comes to antenatal clinic on 15 May. She tells you that her last normal menstrual period started on 10 March. What is her EDC?

3. Mrs. C comes to antenatal clinic on July 11. She tells you that her last normal menstrual period started on 10 March. What is her EDC?

4. Mrs. D comes to antenatal clinic on 15 May. She tells you that her last normal menstrual period started on 1 January. What is her EDC?

5. Mrs. E comes to antenatal clinic on 30 April. She tells you that her last normal menstrual period started on 15 December. What is her EDC?
CASE STUDIES

CASE STUDY 1: ANTENATAL ASSESSMENT AND CARE

DIRECTIONS

Read and analyze this case study individually. When the others in your group have finished reading it, answer the case study questions. Consider the steps in clinical decision-making as you answer the questions. The other groups in the room are working on the same or a similar case study. When all groups have finished, we will discuss the case studies and the answers each group developed.

CLIENT PROFILE

Mrs. A is a 34-year-old Gravida 2/Para 1 with no living children. Her first child died at 3 months of age from “diarrhea.” Mrs. A presents today for her first antenatal visit.

PRE-ASSESSMENT

1. Before beginning your assessment, what should you do for and ask Mrs. A?

ASSESSMENT (information gathering through history, physical examination, and testing)

2. What history will you include in your assessment of Mrs. A and why?

3. What physical examination will you include in your assessment of Mrs. A and why?

4. What laboratory tests will you include in your assessment of Mrs. A and why?

DIAGNOSIS (interpreting information to identify problems/needs)

You have completed your assessment of Mrs. A and your main findings include the following:

History:

- According to Mrs. A’s menstrual history, she is 16 weeks pregnant.

- She reports that she did not breastfeed her first baby, nor did she try, because she was told that something was wrong with her nipples. She believes she will not be able to breastfeed this baby either. Mrs. A also says that after her first baby was born, she did not have the funds to buy the recommended amount of breastmilk substitute, and she did not always have access to clean water to prepare it.

- All other aspects of Mrs. A’s history are normal or without significance.
  - She denies any problems during the previous pregnancy, labor, and birth. She reports that her baby was “very healthy” at birth.
  - She denies any problems during this pregnancy.
Physical Examination:

- Mrs. A’s breast exam is normal except that her nipples appear to be inverted. However, when the areola is gently squeezed on either side of the nipple, the nipple protrudes and the inversion is corrected.

- All other aspects of her physical examination are within normal range.
  - Mrs. A appears well-nourished and healthy.
  - Her blood pressure is 108/78.
  - The conjunctiva are pink.
  - The fundal height is approximately halfway between the symphysis pubis and umbilicus, consistent with the EDC.
  - The genital exam is normal.

Testing:

- Test results were: HIV – negative; RPR – non-reactive; Hemoglobin – 11.5 Gm/dl; Blood type O, Rh positive.

5. Based on these findings, what is Mrs. A’s diagnosis (problem/need) and why?

CARE PROVISION (implementing plan of care and interventions)

6. Based on your diagnosis (problem/need identification), what is your plan of care for Mrs. A and why?

EVALUATION/FOLLOW-UP

- Mrs. A returns for her scheduled antenatal care visits. She reports that she has decided to breastfeed, and even tells you that she knows she must breastfeed so that this baby will live and be healthy.

- Mrs. A is also adhering to the care plan and following other recommendations discussed on previous visits.

7. Based on these findings, what is your continuing plan of care for Mrs. A?

REFERENCES

BMNC—Section Two: Core Components of Basic Care, Chapters 4 and 5; Section Three: Additional Care, Chapter 10; Section Four: Annexes, Annex 5
CASE STUDY 2: ANTENATAL ASSESSMENT AND CARE

DIRECTIONS

Read and analyze this case study individually. When the others in your group have finished reading it, answer the case study questions. Consider the steps in clinical decision-making as you answer the questions. The other groups in the room are working on the same or a similar case study. When all groups have finished, we will discuss the case studies and the answers each group developed.

CLIENT PROFILE

Mrs. B, a 26-year-old Gravida 3/Para 2, presents for her first antenatal clinic visit. Her children are 18 months and 8 months of age. Both are well. She and her family live in a rural village that is in a malaria-endemic area. You note that Mrs. B looks pale and tired.

PRE-ASSESSMENT

1. Before beginning your assessment, what should you do for and ask Mrs. B?

ASSESSMENT (information gathering through history, physical examination, and testing)

2. What history will you include in your assessment of Mrs. B and why?

3. What physical examination will you include in your assessment of Mrs. B and why?

4. What laboratory tests will you include in your assessment of Mrs. B and why?

DIAGNOSIS (interpreting information to identify problems/needs)

You have completed your assessment of Mrs. B and your main findings include the following:

History:

- According to Mrs. B's menstrual history, she is 28 weeks pregnant.
- She admits to feeling weak, tired, and dizzy, but denies other symptoms of anemia.
- She reports that she has been treated for malaria twice in the past 12 months; the most recent episode was 4 months ago, during which she was treated with antimalarial drugs. She denies any symptoms of malaria now.
- She reports that she had no signs or symptoms of anemia during her previous pregnancies.
- She is not taking any medication at present.
- She and her family have an adequate food supply at present, but Mrs. B’s appetite has been poor lately.
Mrs. B’s mother-in-law provides some help with childcare and housework.

All other aspects of her history are normal or without significance.

Physical Examination:

- Mrs. B has mild conjunctival pallor.
- All other aspects of her physical examination are within normal range.
  - Her blood pressure is 100/68.
  - Her temperature is 37.6°C. (Although temperature is not a routine part of antenatal care, because she comes from a malaria-endemic area, this is part of the assessment.)
  - Her breast exam is normal.
  - Mrs. B’s fundal height measurement is 28 weeks, consistent with the EDC.
  - Fetal heart rate is 136 beats/minute and regular.
  - The genital exam is normal.

Testing:

- Hemoglobin is 9 g/dL
- Other test results: RPR – non-reactive; HIV – negative; blood type - O, Rh - positive.

5. Based on these findings, what is Mrs. B’s diagnosis (problem/need) and why?

CARE PROVISION (implementing plan of care and interventions)

6. Based on your diagnosis (problem/need identification), what is your plan of care for Mrs. B and why?

EVALUATION

Mrs. B comes back to the antenatal clinic on the appointed date and on assessment your findings are as follows:

- She has taken her iron/folate tablets as directed, even though she has had mild constipation.
- She has been able to rest more because her mother-in-law has provided more help than usual. She also reports that her appetite has improved.
- She appears less tired and is not as pale, generally, as she was at her first antenatal visit. She says that she "feels much better."
- On physical examination, you find that she still has mild conjunctival pallor.
- She does not have a fever.
- The fetal heart rate is normal, and Mrs. B says that the fetus is active.
- Mrs. B’s hemoglobin is now 10 g/dL.
7. Based on these findings, what is your continuing plan of care for Mrs. B?

REFERENCES

BMNC—Section Two: Core Components of Basic Care, Chapters 4 and 5; Section Three: Additional Care, Chapter 10
CASE STUDY 3: ANTENATAL ASSESSMENT AND CARE

DIRECTIONS

Read and analyze this case study individually. When the others in your group have finished reading it, answer the case study questions. Consider the steps in clinical decision-making as you answer the questions. The other groups in the room are working on the same or a similar case study. When all groups have finished, we will discuss the case studies and the answers each group developed.

CLIENT PROFILE

Mrs. C, a 27-year-old Gravida 3/Para 2, presents for her second regularly scheduled antenatal care visit at 26 weeks’ gestation. Her first visit was at 16 weeks. At that time, Mrs. C chose not to be tested for HIV, a test that is recommended for all pregnant women. Her other laboratory tests were normal. She lives with her husband and children in a suburb of the capital city of a country where the prevalence of HIV infection in pregnant women has increased over the past few years. You note that she looks anxious and unhappy.

PRE-ASSESSMENT

1. Before beginning your assessment, what should you do for and ask Mrs. C?

ASSESSMENT (information gathering through history, physical examination, and testing)

2. What history will you include in your assessment of Mrs. C and why?

3. What physical examination will you include in your assessment of Mrs. C and why?

4. What laboratory tests will you include in your assessment of Mrs. B and why?

DIAGNOSIS (interpreting information to identify problems/needs)

You have completed your assessment of Mrs. C and your main findings include the following:

History:

- During the first antenatal visit, all aspects of Mrs. C’s history were normal, except that she opted out of HIV testing.
- During this visit, when you ask whether there is anything worrying her or anything that she would like to talk about, she reports that:
  - She is very concerned about her family history of HIV: Her brother-in-law has AIDS and his wife and their youngest child are both HIV-positive.
  - She felt embarrassed to talk about this with you at her first antenatal visit, even though you provided an opportunity for her to do so when you asked about her HIV status,
offered HIV testing, and provided HIV counseling.

- She knows that her husband has sexual relations with at least one other woman; however, he refuses to use a condom during intercourse with his wife. Mrs. C has no sexual partners other than her husband.
- She is very distraught, as she fears that she may be HIV-positive.
- During this visit, all other aspects of Mrs. C’s history are normal.

Physical Examination:

- During the first antenatal visit, all findings on physical examination were within normal range.
- During this visit, all findings on physical examination are within normal range.

Testing:

- During the first antenatal visit, she “opted out” of HIV testing; all other test results were normal as mentioned above in client profile.
  - Hemoglobin 11 gm/dL.
  - RPR non-reactive.
  - Blood type O, Rh positive

5. Based on these findings, what is Mrs. C's diagnosis (problem/need) and why?

CARE PROVISION (implementing plan of care and interventions)

6. Based on your diagnosis (problem/need identification), what is your plan of care for Mrs. C and why?

EVALUATION

- Mrs. C agreed to HIV testing on her last visit and now comes back to see you with the result of her HIV test, which is positive. Her tests for gonorrhea and chlamydia were negative.
- She tells you that some counseling was provided at the testing site, which was helpful, but she wants to discuss her situation further with you.
- She is very distraught.

7. Based on these findings, what is your continuing plan of care for Mrs. C?

REFERENCES

BMNC—Section Two: Core Components of Basic Care, Chapters 4 and 5; Section Three: Additional Care, Chapter 10
SKILLS PRACTICE SESSIONS

SKILLS PRACTICE SESSION 1: ANTENATAL HISTORY

PURPOSE

The purpose of this activity is to enable participants to practice taking an antenatal history and achieve competence in the skills required.

INSTRUCTIONS

This activity should be conducted in a simulated situation.

Participants should review the steps/tasks under “History” in Learning Guide 1, before beginning the activity. Participants should also review the content for these topics in the BMNC—Section Two: Core Components of Basic Care, Chapter 5: Antenatal Care Provision and Section Three: Additional Care, Chapter 6: Common Discomforts (selected text).

The trainer should demonstrate the steps/tasks in taking an antenatal history for participants.

Under the guidance of the trainer, participants should then work in groups of three to practice the steps/tasks and observe each other’s performance:

- While one participant takes a history from another, the third participant should use the relevant section of Learning Guide 1 to observe performance.

- Participants should then reverse roles until each has had an opportunity to take a history and be observed.

Participants should be able to perform the steps/tasks relevant to taking an antenatal history before progressing to physical examination.

RESOURCES

Antenatal record cards (sufficient for each participant to practice history taking several times)

The BMNC

Learning Guide 1: Antenatal Assessment (History, Physical Examination, Testing) and Care
SKILLS PRACTICE SESSION 2: BIRTH PLANNING AND COUNSELING

PURPOSE

The purpose of this activity is to enable participants to practice counseling on the following topics: birth planning including complication readiness, nutrition, prevention of infection/hygiene, rest and activity, sexual relations and safer sex, early and exclusive breastfeeding, family planning, HIV (risks, prevention, testing), common discomforts of pregnancy, and use of potentially harmful substances.

INSTRUCTIONS

This activity should be conducted in a simulated situation.

Participants should review the steps/tasks in Steps 1 through 12 under “Care Provision” in Learning Guide 1, before beginning the activity. Participants should also review the content for these topics in the BMNC—Section Two: Core Components of Basic Care, Chapter 5: Antenatal Care Provision and Section Three: Additional Care, Chapter 6: Common Discomforts (selected text).

The trainer should demonstrate the steps/tasks in birth planning and counseling for participants.

Under the guidance of the trainer, participants should then work in groups of three to practice the steps/tasks and observe each other’s performance.

- Each participant should practice counseling on two of the subjects listed above (under Purpose). Each participant should choose two subjects that are different from those chosen by other participants in this exercise.

- While one participant counsels another, the third participant should use the relevant section of Learning Guide 1 to observe performance.

- Participants should then reverse roles until each has had an opportunity to counsel a simulated client.

RESOURCES

Any patient charts or patient education materials that are available in the clinic where participants will be practicing with clients

The BMNC

Learning Guide 1: Antenatal Assessment (History, Physical Examination, Testing) and Care
LEARNING GUIDE AND PRACTICE CHECKLIST

The Learning Guide and Checklist for are designed to help the participant learn the steps or tasks involved in conducting a basic antenatal care visit.

USING THE LEARNING GUIDE

There is one learning guide in this handbook:

Learning Guide 1: Antenatal Assessment and Care

The learning guide contains the steps or tasks relevant to the skills for basic antenatal assessment (history, physical examination, testing) and care provision and correspond to the information presented in the applicable chapters/annexes of the reference manual for the course.

- Initially, participants can follow the learning guide as the trainer demonstrates the steps or tasks for a particular procedure.

- Subsequently, during classroom and clinic practice sessions, it serves as a step-by-step guide for the participant as she/he performs the skills. During this phase, participants work in groups of two or three, using the learning guides to rate each other’s performance or prompt each other as necessary. The clinical trainer(s) will provide guidance to each group to ensure that learning is progressing and that participants are following the steps outlined in the learning guides.

Because the learning guides are used to help in developing skills, it is important that the rating (scoring) be done carefully and as objectively as possible. The participant’s performance of each step is rated on a three-point scale as follows:

| 1  | Needs Improvement: Step or task not performed correctly, performed out of sequence (if sequence necessary), or omitted |
| 2  | Competently Performed: Step or task performed correctly and in proper sequence (if sequence necessary), but learner does not progress from step to step efficiently |
| 3  | Proficiently Performed: Step or task performed correctly, in proper sequence (if sequence necessary), and efficiently |
USING THE PRACTICE CHECKLIST

There is one checklist for the course:

Checklist 1: Antenatal Assessment and Care

The checklist is based on the information provided in the learning guide. Unlike the learning guide, which is quite detailed, the checklist focuses on the key steps in the entire process.

Using the Checklist for Practice

As the participant progresses through the course and gains experience, dependence on the detailed learning guide decreases and the checklist may be used in its place. The checklist can also be used by the participant when providing services in a clinical situation to rate her/his own performance.

Using the Checklist for Evaluation

This checklist, which the participant uses for practice, is the same as the checklist that the clinical trainer will use to evaluate the participant’s performance in providing basic antenatal care at the end of the course.

Criteria for assessment are included at the beginning of the checklist. Assessment of clinical skills will usually take place at the end of the training course. It is important that each participant demonstrates the steps or tasks at least once for feedback and coaching prior to the final assessment. If a step or task is not performed correctly, the participant should repeat the entire skill or activity sequence, not just the incorrect step. In addition, it is recommended that the trainer not stop the participant at the incorrect step unless the safety of the client is at stake. If it is not, the trainer should allow the participant to complete the skill/procedure before providing coaching and feedback on her/his overall performance.

In determining whether the participant is qualified, the trainer(s) will observe and rate the participant’s performance on each step/task of a skill or procedure. The participant must be rated as “Satisfactory” for each step/task in the checklist to be assessed as qualified. The rating scale used is described on the next page:
<table>
<thead>
<tr>
<th><strong>Satisfactory:</strong></th>
<th>Performs the step or task according to the standard procedure or guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unsatisfactory:</strong></td>
<td>Unable to perform the step or task according to the standard procedure or guidelines</td>
</tr>
<tr>
<td><strong>Not Observed:</strong></td>
<td>Step or task not performed by participant during evaluation by trainer</td>
</tr>
</tbody>
</table>
LEARNING GUIDE 1: ANTENATAL ASSESSMENT (HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE
(To be used by the Participant)

Rate the performance of each step or task observed using the following rating scale:

1 **Needs Improvement**: Step or task not performed correctly, performed out of sequence (if sequence necessary), or omitted

2 **Competently Performed**: Step or task performed correctly and in proper sequence (if sequence necessary), but learner does not progress from step to step efficiently

3 **Proficiently Performed**: Step or task performed correctly, in proper sequence (if sequence necessary), and efficiently

---

<table>
<thead>
<tr>
<th>GETTING READY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prepare the client care area, necessary supplies, and equipment.</td>
</tr>
<tr>
<td>2. Use an antiseptic hand rub or wash hands thoroughly with soap and water and dry with clean, dry cloth or allow to air dry.</td>
</tr>
<tr>
<td>3. Greet the woman and her companion respectfully and with kindness, introduce yourself, and offer the woman a seat.</td>
</tr>
<tr>
<td>4. Tell the woman what you are going to do, encourage her to ask questions, and listen to what she has to say.</td>
</tr>
<tr>
<td>5. Confirm that woman has undergone Quick Check. Perform Quick Check if not done.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HISTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Flexibility may be used with respect to the order in which the questions are asked. For example, it may be better to link some questions with particular aspects of the woman’s physical examination. In performing the ANC history and physical examination, learners should ask appropriate followup questions as needed.</td>
</tr>
</tbody>
</table>

**Personal Information (First Visit)**

| 1. Ask the woman’s name, age, address, and phone number (if available). |
| 2. Ask if she has access to reliable transportation. |
| 3. Ask what are her/her family’s sources of income/financial support. |
| 4. Ask if she is having a medical, obstetric, social, or personal problem or other concern, and if she has had any problems during this pregnancy. |
| 5. Ask if she has received care from another caregiver during this pregnancy. |

**Menstrual and Contraceptive History (First Visit)**

| 6. Ask the first day of her last menstrual period and calculate her EDC. |
| 7. Ask how many more children she plans to have. |
| 8. Ask if she has used a family planning method before. If she has, ask which method(s) and whether she liked the method(s). |
### LEARNING GUIDE FOR ANTENATAL ASSESSMENT
(HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE
Some of the following steps/tasks should be performed simultaneously

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Ask if she plans on using a family planning method after this baby is born. If so, ask which method.</td>
<td></td>
</tr>
</tbody>
</table>

**Present Pregnancy (First Visit)**

| 10. Ask if she has felt the baby move. If she has, ask the woman when the baby first moved and whether she has felt it move in the last day. |       |
| 11. Ask what her feelings are about this pregnancy. |       |
| 12. Ask what are the feelings of her partner or family about this pregnancy. |       |

**Daily Habits and Lifestyle (First Visit)**

| 13. Ask if she works outside the home. |       |
| 14. Ask if she walks long distances, carries heavy loads or does heavy physical labor. |       |
| 15. Ask if she gets enough sleep and rest. |       |
| 16. Ask what she normally eats in a day, and what she has eaten in the past 2 days. Ask if she eats any non-food substances such as dirt or clay. |       |
| 17. Ask if she has had a baby within the last year. If she has, ask if the woman is currently breastfeeding. |       |
| 18. Ask if she smokes, drinks alcohol, or uses any other possibly harmful substances. |       |
| 19. Ask who she lives with. |       |
| 20. Ask if:  
  - anyone has ever prevented her from seeing family or friends, stopped her from leaving her house, or threatened her life.  
  - she has ever been injured, hit, or forced to have sex by someone.  
  - she is frightened of anyone. |       |

**Obstetric History (First Visit)**

| 22. Ask if she has had any problems during a previous pregnancy or during/after childbirth:  
  - convulsions during pregnancy or during/after childbirth  
  - caesarean section, uterine rupture, or uterine surgery during childbirth  
  - tears through the sphincter and/or rectum during childbirth  
  - postpartum hemorrhage  
  - stillbirths, preterm, low birthweight, babies, babies who died before 1 month of age, three or more spontaneous abortions. |       |
| 23. Ask if she has breastfed before. If she has, ask how long she breastfed and whether she had any problems. |       |

**Medical History (First Visit)**

| 24. Ask if she has any allergies. |       |
| 25. Ask if she has been diagnosed with anemia in the last 3 months. |       |
| 26. Ask if she has been diagnosed with syphilis. |       |
| 27. Ask if she has been diagnosed with any chronic illnesses or conditions such as tuberculosis, heart disease, kidney disease, sickle cell disease, diabetes, goiter, or another serious chronic illness. |       |
## LEARNING GUIDE FOR ANTENATAL ASSESSMENT (HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE

Some of the following steps/tasks should be performed simultaneously

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>28. Ask if she has ever been in the hospital or had surgery.</td>
<td></td>
</tr>
<tr>
<td>29. Ask if she is taking any drugs/medications (including traditions/local preparations, herbal remedies, over-the-counter drugs, vitamins, or dietary supplements).</td>
<td></td>
</tr>
<tr>
<td>30. Ask if she has had a complete series of five tetanus toxoid (TT) immunizations. If she has, ask if it has been less than 10 years since her last booster.</td>
<td></td>
</tr>
</tbody>
</table>

### Interim History (Return Visits)

Remember that the questions about her present pregnancy should be asked at every ANC visit.

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. Ask if she is having a medical, obstetric, social, or personal problem or other concerns.</td>
<td></td>
</tr>
<tr>
<td>32. Ask if she has had any problems or significant changes since her last visit.</td>
<td></td>
</tr>
<tr>
<td>33. Ask if she has received care from another caregiver since her last visit. If so, ask who provided the care, what care was provided and what the outcome of care was.</td>
<td></td>
</tr>
<tr>
<td>34. Ask if any of her personal information has changed since her last visit.</td>
<td></td>
</tr>
<tr>
<td>35. Ask if her daily habits or lifestyle (workload, rest, dietary intake) changed since her last visit.</td>
<td></td>
</tr>
<tr>
<td>36. Ask if there has been a change in her medical history since her last visit.</td>
<td></td>
</tr>
<tr>
<td>37. Ask if she has taken drugs/medications prescribed and followed the advice/recommendations provided at her last visit.</td>
<td></td>
</tr>
<tr>
<td>38. Ask if she has had any reactions to or side effects from immunizations or drugs/medications given at her last visit.</td>
<td></td>
</tr>
</tbody>
</table>

### PHYSICAL EXAMINATION

#### Assessment of General Well-Being and Blood Pressure (Every Visit)

1. Observe her general well-being:
   - Her gait and movements (walks steadily and without a limp)
   - Her facial expression (is alert and responsive)
   - Her general cleanliness (no visible dirt, no odor)
   - Her skin (free from lesions and bruises)
   - Her conjunctiva (are pink, not white or very pale pink in color)

2. Measure blood pressure while the woman is seated or lying down with the knees slightly bent and relaxed:
   - If diastolic BP is >90 mm Hg., ask the woman if she has severe headache, blurred vision or epigastric pain, and check her urine for protein

### Preparing for Further Examination

3. Explain the steps in the physical examination and obtain the woman’s consent.

4. Ask her to empty her bladder. Have her provide a urine sample if indicated and if urine testing is available.

5. Have the woman undress in private. Ask her to remove only enough clothing to complete the examination.

6. Provide her with a drape or cloth to cover the parts of her body that are not being examined.
<table>
<thead>
<tr>
<th>STEP/TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Help her onto the examination surface and assist her in assuming a</td>
</tr>
<tr>
<td>comfortable position.</td>
</tr>
</tbody>
</table>

**Visual Breast Examination (First Visit/As Needed)**

8. Conduct **visual breast examination (First visit/as needed):**
   - Ask the woman to sit on the examination surface, uncover her body from the waist up, and place her arms at her sides.
   - Visually inspect the overall appearance of the woman’s breasts (contours, skin, nipples and note any abnormalities)
   - If nipples appear inverted, test for protractility by placing the thumb and fingers on either side of areola and gently squeezing
   - If the nipple goes in, it is inverted

**Abdominal Examination (Every Visit)**

9. Ask the woman to lie on her back with her knees slightly bent and uncover her abdomen.

10. Check abdomen for scars:
    - If there is a scar, ask if it is from a caesarean section or other uterine surgery.

11. Measure fundal height:
    - If 12–22 weeks, palpate and estimate weeks of gestation by determining distance between top of fundus and symphysis pubis.
    - If more than 22 weeks, use a tape measure to determine the number of centimeters from the upper edge of symphysis pubis to the top of the fundus.

12. Carry out fundal palpation:
    - Stand at the woman’s side, facing her head.
    - Place both hands on the sides of the fundus at the top of the abdomen.
    - Using the flat part of your fingers, apply gentle but firm pressure to assess consistency and mobility of the fetal part.

13. Carry out lateral palpation:
    - Move hands smoothly down sides of uterus to feel for fetal back.
    - Keep dominant hand steady against the side of uterus, while using palm of other hand to apply gentle but deep pressure to explore opposite side of uterus.
    - Repeat procedure on other side of uterus.

14. Carry out supra-pubic (pelvic) palpation:
    - Turn and face the woman’s feet.
    - Place hands on either side of uterus with palms below the level of the umbilicus and fingers pointing to symphysis pubis.
    - Grasp fetal part snugly between hands to feel shape, size, consistency and mobility.
    - Observe the woman’s face for signs of pain/tenderness during palpation.
### LEARNING GUIDE FOR ANTENATAL ASSESSMENT
**(HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE**
Some of the following steps/tasks should be performed simultaneously

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>15. Listen to the fetal heart rate:</strong></td>
<td></td>
</tr>
<tr>
<td>• Place fetal stethoscope on abdomen (on the same side that you palpated the fetal back.</td>
<td></td>
</tr>
<tr>
<td>• Place your ear in close, firm contact with fetal stethoscope.</td>
<td></td>
</tr>
<tr>
<td>• Remove hands from fetal stethoscope and listen to fetal heart for a full minute, counting beats against the second hand of a clock.</td>
<td></td>
</tr>
<tr>
<td>• Feel the woman’s pulse at wrist, simultaneously, to ensure that fetal heart tones, and not maternal pulse, are being measured.</td>
<td></td>
</tr>
</tbody>
</table>

**Genital Examination (First Visit/As Needed)**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Tell the woman what you are going to do before each step of the examination.</td>
<td></td>
</tr>
<tr>
<td>17. Ask the woman to uncover her genital area and cover or drape her to preserve privacy and modesty.</td>
<td></td>
</tr>
<tr>
<td>18. Ask the woman to separate her legs while continuing to keep knees slightly bent. Turn on and direct light toward genital area.</td>
<td></td>
</tr>
<tr>
<td>19. Use antiseptic handrub or wash hands thoroughly with soap and water and dry with clean, dry cloth or allow to air dry.</td>
<td></td>
</tr>
<tr>
<td>20. Put new examination or high-level disinfected gloves on both hands.</td>
<td></td>
</tr>
<tr>
<td>21. Touch the inside of the woman’s thigh before touching genital area.</td>
<td></td>
</tr>
<tr>
<td>22. Separate labia majora with two fingers, check labia minora, clitoris, urethral opening, and vaginal opening.</td>
<td></td>
</tr>
<tr>
<td>23. Palpate the labia minora:</td>
<td></td>
</tr>
<tr>
<td>• look for swelling, discharge, tenderness, ulcers, and fistulas</td>
<td></td>
</tr>
<tr>
<td>• feel for irregularities and nodules</td>
<td></td>
</tr>
<tr>
<td>24. Check Skene’s gland for discharge and tenderness:</td>
<td></td>
</tr>
<tr>
<td>• With palm facing upward, insert index finger into vagina and gently push upward against urethra and milk gland on each side, and then directly, on urethra.</td>
<td></td>
</tr>
<tr>
<td>25. Check Bartholin’s glands for discharge and tenderness:</td>
<td></td>
</tr>
<tr>
<td>• Insert index finger into vagina at lower edge of opening and feel at base of each labia majora.</td>
<td></td>
</tr>
<tr>
<td>• Using finger and thumb, palpate each side for swelling or tenderness.</td>
<td></td>
</tr>
<tr>
<td>26. Check perineum for scars, lesions, inflammation or cracks in skin.</td>
<td></td>
</tr>
</tbody>
</table>

**After the Examination**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>27. Immerse both gloved hands in 0.5% chlorine solution:</td>
<td></td>
</tr>
<tr>
<td>• Remove gloves by turning them inside out</td>
<td></td>
</tr>
<tr>
<td>• If disposing of gloves, place in leak proof container or plastic bag</td>
<td></td>
</tr>
<tr>
<td>• If reusing gloves, submerge in 0.5% chlorine solution for 10 minutes to decontaminate</td>
<td></td>
</tr>
<tr>
<td>28. Use antiseptic handrub or wash hands thoroughly with soap and water and dry with clean, dry cloth or allow to air dry.</td>
<td></td>
</tr>
<tr>
<td>29. Help the woman off the examination table.</td>
<td></td>
</tr>
<tr>
<td>30. Share your findings with the woman.</td>
<td></td>
</tr>
</tbody>
</table>
### LEARNING GUIDE FOR ANTENATAL ASSESSMENT (HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE

Some of the following steps/tasks should be performed simultaneously.

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TESTING</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Do a hemoglobin test (1st visit, at about 28 weeks, and as needed based on signs and symptoms):  
  - If hemoglobin is less than 7 g/dL, refer woman to hospital.  
  - If hemoglobin is 7–11 g/dL, give iron/folate 1 tablet twice daily. |     |
| 2. Do an RPR test (first visit/as needed):  
  - If result is positive, refer woman for treatment of syphilis.  
  - Plan to treat newborn.  
  - Encourage woman to bring sexual partner for treatment.  
  - Advise on correct and consistent use of condom to prevent reinfection after treatment. |     |
| 3. Inform woman that HIV testing is recommended for all pregnant women, but that she may choose not to have the test. If she chooses to be tested, refer her to counseling and testing services for HIV:  
  - Provide information about counseling and testing. |     |
| 4. Test for blood group and Rh, if available. If Rh negative, woman is candidate for anti-D immune globulin. |     |
| 5. If woman lives in an area with high prevalence of diabetes/gestational diabetes, test urine for glucose:  
  - If urine positive for glucose, refer for treatment. |     |
| **CARE PROVISION** |     |
| **Note:** Individualize the woman’s care by considering all findings gathered during assessment. |     |
| 1. Provide advice and counseling about diet and nutrition:  
  - Eat a balanced diet  
  - Eat a variety of foods  
  - Eat an extra serving of staple food per day  
  - Eat a balanced diet and a variety of foods  
  - Eat smaller more frequent meals, if necessary  
  - Take 1 iron/folate tablet daily |     |
| 2. Develop a birth plan with the woman, including all preparations for normal birth and plans in case of emergency:  
  - Skilled provider and place of birth  
  - Transportation/emergency transportation and funds/emergency funds  
  - Decision making and support person  
  - Items for clean and safe birth and for newborn  
  - Danger signs and signs of labor |     |
| 3. Provide advice and counseling about common discomforts of pregnancy, as needed. |     |
| 4. Provide advice and counseling about use of potentially harmful substances:  
  - Smoking, drinking, alcohol, drugs/medications  
  - Inform healthcare worker before use of prescription drugs |     |
<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Provide advice and counseling about hygiene:</td>
<td></td>
</tr>
<tr>
<td>• Handwashing</td>
<td></td>
</tr>
<tr>
<td>• Safe drinking water</td>
<td></td>
</tr>
<tr>
<td>• Food handling/safety</td>
<td></td>
</tr>
<tr>
<td>• Body, clothing, bedding, environment</td>
<td></td>
</tr>
<tr>
<td>6. Provide advice and counseling about rest and activity:</td>
<td></td>
</tr>
<tr>
<td>• Decreasing heavy work</td>
<td></td>
</tr>
<tr>
<td>• Needing additional rest</td>
<td></td>
</tr>
<tr>
<td>• Periodic rest periods throughout day</td>
<td></td>
</tr>
<tr>
<td>• Avoid lying on back</td>
<td></td>
</tr>
<tr>
<td>• Avoid standing for long periods</td>
<td></td>
</tr>
<tr>
<td>• Susceptibility to injuries</td>
<td></td>
</tr>
<tr>
<td>• Increased caloric needs</td>
<td></td>
</tr>
<tr>
<td>7. Provide advice and counseling about sexual relations and safer sex:</td>
<td></td>
</tr>
<tr>
<td>• Abstinence or monogamy</td>
<td></td>
</tr>
<tr>
<td>• Use of condoms</td>
<td></td>
</tr>
<tr>
<td>• Other high risk sexual practices</td>
<td></td>
</tr>
<tr>
<td>• Change in sexual desire during pregnancy</td>
<td></td>
</tr>
<tr>
<td>• Intercourse not harming fetus</td>
<td></td>
</tr>
<tr>
<td>• Avoiding if fluid leakage, bleeding, premature labor</td>
<td></td>
</tr>
<tr>
<td>• Changes in positions</td>
<td></td>
</tr>
<tr>
<td>• STIs</td>
<td></td>
</tr>
<tr>
<td>8. Provide advice and counseling about early and exclusive breastfeeding:</td>
<td></td>
</tr>
<tr>
<td>• Benefits (economic, health for baby, health for mother, bonding)</td>
<td></td>
</tr>
<tr>
<td>• General principles (beginning immediately at birth, benefits of colostrum, exclusive breastfeeding, on demand breastfeeding)</td>
<td></td>
</tr>
<tr>
<td>9. Provide advice and counseling about family planning:</td>
<td></td>
</tr>
<tr>
<td>• Benefits of optimum birth spacing (at least 3 years)</td>
<td></td>
</tr>
<tr>
<td>• Method choice</td>
<td></td>
</tr>
<tr>
<td>• Starting before fertility returns</td>
<td></td>
</tr>
<tr>
<td>10. Provide advice and counseling about HIV testing:</td>
<td></td>
</tr>
<tr>
<td>• Pretest counseling</td>
<td></td>
</tr>
<tr>
<td>• Post-test counseling</td>
<td></td>
</tr>
<tr>
<td>11. Encourage the woman to ask questions and express concerns.</td>
<td></td>
</tr>
<tr>
<td>12. Ask the woman questions to be sure that she understands what is being said.</td>
<td></td>
</tr>
</tbody>
</table>

**Immunizations and Other Prophylaxis**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Give tetanus toxoid (TT) based on woman’s need.</td>
<td></td>
</tr>
<tr>
<td>14. Give enough iron folate to last until next visit and counsel the woman about the following:</td>
<td></td>
</tr>
<tr>
<td>• Eat food rich in vitamin C</td>
<td></td>
</tr>
<tr>
<td>• Avoid tea, coffee, and colas</td>
<td></td>
</tr>
<tr>
<td>• Possible side effects of medication</td>
<td></td>
</tr>
</tbody>
</table>
### LEARNING GUIDE FOR ANTENATAL ASSESSMENT
(HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE
Some of the following steps/tasks should be performed simultaneously

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Give medications as follows:</td>
<td></td>
</tr>
<tr>
<td>- Antimalarial tablets (based on region/population-specific need)</td>
<td></td>
</tr>
<tr>
<td>- Mebendazole (based on region/population-specific need)</td>
<td></td>
</tr>
<tr>
<td>- Vitamin A (based on region/population-specific need)</td>
<td></td>
</tr>
<tr>
<td>- Iodine (based on region/population-specific need)</td>
<td></td>
</tr>
</tbody>
</table>

#### Return Visits

<table>
<thead>
<tr>
<th>RETURN VISITS</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Schedule the next antenatal visit:</td>
<td></td>
</tr>
<tr>
<td>- Make sure the woman knows when and where to come</td>
<td></td>
</tr>
<tr>
<td>- Answer any additional questions or concerns</td>
<td></td>
</tr>
<tr>
<td>17. Thank the woman and her family for coming.</td>
<td></td>
</tr>
<tr>
<td>18. Record findings from assessment and care provision on woman’s record.</td>
<td></td>
</tr>
</tbody>
</table>

Basic Maternal and Newborn Care: Basic Antenatal Care
JHPIEGO/Maternal and Neonatal Health Program
**CHECKLIST 1: ANTENATAL ASSESSMENT (HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE**  
*(To be used by the Trainer)*

Place a “✓” in case box if task/activity is performed **satisfactorily**, an “✗” if it is **not** performed **satisfactorily**, or N/O if not observed.

**Satisfactory:** Performs the step or task according to the standard procedure or guidelines

**Unsatisfactory:** 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

---

### CHECKLIST FOR ANTENATAL ASSESSMENT  
*(HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE*

Some of the following steps/tasks should be performed simultaneously

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GETTING READY</strong></td>
<td></td>
</tr>
<tr>
<td>1. Prepare the client care area, necessary supplies, and equipment. Use antiseptic handrub or wash and dry hands.</td>
<td></td>
</tr>
<tr>
<td>2. Greet the woman and her companion respectfully and with kindness, introduce yourself, and offer the woman a seat.</td>
<td></td>
</tr>
<tr>
<td>3. Tell the woman what you are going to do, encourage her to ask questions, and listen to what she has to say.</td>
<td></td>
</tr>
<tr>
<td>4. Perform Quick Check if not done.</td>
<td></td>
</tr>
</tbody>
</table>

**SKILL ACTIVITY PERFORMED SATISFACTORILY**

### HISTORY

#### Personal Information (First Visit)

1. Obtain identifying information from the woman and ask whether she has access to reliable transportation.

2. Ask if she is currently having a problem, or if she has had any problems during this pregnancy.

3. Ask if she has received care from another caregiver during this pregnancy.

#### Menstrual and Contraceptive History (First Visit)

4. Obtain her menstrual and contraceptive history and calculate her EDC.

5. Obtain information on her use of family planning methods and whether she plans to use a family planning method in the future.

#### Present Pregnancy (First Visit)

6. Ask if she has felt the baby move, when the baby first moved and whether she has felt it move in the last day.

7. Ask how she and her partner or family feel about this pregnancy.

#### Daily Habits and Lifestyle (First Visit)

8. Obtain information about her daily life and work, including her sleeping and eating habits, whether she is currently breastfeeding, use of harmful substances, and whether there is a history of violence or abuse.
### CHECKLIST FOR ANTENATAL ASSESSMENT
(HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE

Some of the following steps/tasks should be performed simultaneously.

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Obstetric History (First Visit)</strong></td>
<td></td>
</tr>
<tr>
<td>9. Ask if she has had any problems during a previous pregnancy or during/following childbirth</td>
<td></td>
</tr>
<tr>
<td>10. Ask if she has breastfed or had any problems breastfeeding.</td>
<td></td>
</tr>
<tr>
<td><strong>Medical History (First Visit)</strong></td>
<td></td>
</tr>
<tr>
<td>11. Obtain her medical history, including whether she has been tested for HIV, whether she has anemia, any chronic illnesses, or been hospitalized or had surgery.</td>
<td></td>
</tr>
<tr>
<td>12. Ask if she is taking any drugs/medications (including traditions/local preparations, herbal remedies, over-the-counter drugs, vitamins, or dietary supplements).</td>
<td></td>
</tr>
<tr>
<td>13. Ask if she has had a complete series of five tetanus toxoid (TT) immunizations and when she had her last booster shot.</td>
<td></td>
</tr>
<tr>
<td><strong>Interim History (Return Visits)</strong></td>
<td></td>
</tr>
<tr>
<td>14. Ask if she is having any problems or if there have been significant changes since her last visit.</td>
<td></td>
</tr>
<tr>
<td>15. Ask if she has received care from another caregiver since her last visit.</td>
<td></td>
</tr>
<tr>
<td>16. Ask if there have been any changes in her personal information, daily habits or lifestyle, or medical history since her last visit.</td>
<td></td>
</tr>
<tr>
<td>17. Ask if she taken medications prescribed and followed the advice provided at her last visit.</td>
<td></td>
</tr>
</tbody>
</table>

**SKILL ACTIVITY PERFORMED SATISFACTORILY**

### PHYSICAL EXAMINATION

**Assessment of General Well-Being and Blood Pressure (Every Visit)**

1. Observe her general well-being
2. Measure blood pressure while the woman is seated and relaxed
   - Preparing for Further Examination
3. Obtain the woman’s consent for the physical examination.
4. Have the woman empty her bladder.
5. Provide her with a drape or cloth and help her onto the examination surface.

**Visual Breast Examination (First Visit/As Needed)**

6. Visually inspect overall appearance of the woman’s breasts, and test for nipple protactility if indicated.

**Abdominal Examination (Every Visit)**

7. Ask the woman to uncover her stomach and lie on her back with her knees slightly bent.
8. Check abdomen for scars.
9. Measure fundal height.
10. Carry out fundal, lateral, and pelvic palpation.
### CHECKLIST FOR ANTENATAL ASSESSMENT
(HISTORY, PHYSICAL EXAMINATION, TESTING) AND CARE

Some of the following steps/tasks should be performed simultaneously

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Listen to the fetal heart rate.</td>
<td></td>
</tr>
</tbody>
</table>

#### Genital Examination (First Visit/As Needed)

12. Tell the woman what you are going to do before each step of the examination.
13. Ask the woman to uncover her genital area and cover her with a cloth or drape.
14. Use antiseptic handrub or wash and dry hands.
15. Put gloves on both hands.
16. Touch the inside of the woman’s thigh before touching genital area.
17. Separate labia majora with two fingers, check labia minora, clitoris, urethral opening and vaginal opening.
18. Palpate the labia minora,
19. Check Skene’s and Bartholin’s glands for discharge and tenderness.
20. Check perineum for scars, lesions, inflammation or cracks in skin.

#### After the Examination

21. Immerse both gloved hands in 0.5% chlorine solution and remove gloves.
22. Use antiseptic handrub or wash and dry hands.
23. Share your findings with the woman.

### SKILL/ACTIVITY PERFORMED SATISFACTORILY

#### TESTING

1. Do a hemoglobin test (1st visit, at about 28 weeks, and as needed based on signs and symptoms).
2. Do an RPR test (first visit/as needed) and refer and counsel depending on result.
3. Refer woman to counseling and testing services for HIV test, if she chooses to be tested.
4. Test for blood group and Rh, if available.
5. Test urine for glucose if woman lives in an area with high prevalence of diabetes/gestational diabetes and refer for treatment if positive.

### SKILL/ACTIVITY PERFORMED SATISFACTORILY

#### CARE PROVISION

1. Develop a birth plan with the woman, including all preparations for normal birth and plans in case of emergency.
2. Provide advice and counseling about common discomforts of pregnancy, as needed.
3. Provide advice and counseling about use of potentially harmful substances.
4. Provide advice and counseling about hygiene.
5. Provide advice and counseling about rest and activity.
6. Provide advice and counseling about sexual relations and safer sex.
7. Provide advice and counseling about early and exclusive breastfeeding.
<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Provide advice and planning about family planning.</td>
<td></td>
</tr>
<tr>
<td>9. Provide advice and counseling about HIV testing.</td>
<td></td>
</tr>
<tr>
<td>10. Encourage the woman to ask questions and be sure that she understands what is being said.</td>
<td></td>
</tr>
</tbody>
</table>

**Immunizations and Other Prophylaxis**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Give tetanus toxoid (TT) based on woman’s need.</td>
<td></td>
</tr>
<tr>
<td>12. Give enough iron folate to last until next visit and counsel the woman about nutrition and possible side effects related to iron folate.</td>
<td></td>
</tr>
<tr>
<td>13. Give appropriate medications.</td>
<td></td>
</tr>
</tbody>
</table>

**Return Visits**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Schedule the next antenatal visit, answer any questions, and thank the woman and her family for coming.</td>
<td></td>
</tr>
<tr>
<td>15. Record findings from assessment and care provision on woman’s record.</td>
<td></td>
</tr>
</tbody>
</table>

**SKILL/ACTIVITY PERFORMED SATISFATORILY**

Participant is □ QUALIFIED □ NOT QUALIFIED to provide antenatal care services based on the following criteria:

Score on Midcourse Questionnaire ____________ % (attach answer sheet)

ANC Skills Evaluation □ Satisfactory □ Unsatisfactory

Provision of services (practice) □ Satisfactory □ Unsatisfactory
USING ILLUSTRATED LECTURES

Lectures should be used to present information about specific topics. The lecture content should be based on, but not necessarily limited to, the information in the reference manual.

There are two important activities that should be undertaken to prepare for each lecture or interactive presentation. First, the participants should be directed to read relevant sections of the reference manual (and other resource materials, if and when used) before each lecture. Second, the trainer should prepare for the lectures by becoming thoroughly familiar with lecture content.

During lectures, the trainer should direct questions to participants and also encourage them to ask questions at any point during the lecture. Another strategy that encourages interaction involves stopping at predetermined points during the lecture to discuss issues and information of particular importance.
Slide 1

Basic Maternal and Newborn Care
Fundamentals of Basic Care

Slide 2

Session Objectives
By end of session, participants will be able to describe/define:
• The global maternal health situation
• Evidence-based care and rationales
• Core competencies/responsibilities of skilled provider
• An adequate care provision system
• Woman-friendly care
• Male involvement
• Culturally appropriate care
• Individualization of care

Slide 3

Maternal Mortality and Morbidity: Scope of Problem
• 180–200 million pregnancies per year
• 75 million unwanted pregnancies
• 50 million induced abortions and 20 million unsafe abortions
• 600,000 maternal deaths/year (1 per minute), 99% of which occur in developing countries
• 30 maternal morbidities for every 1 maternal death
Deaths Worldwide from Complications of Pregnancy and Childbirth

- Unsafe abortion: 12%
- Hemorrhage: 12%
- Septicemia: 12%
- Other severe: 8%
- Obstructed Labor: 7%
- Sepsis: 11%
- Other: 11%

Principles of Basic Care
- Based on evidence
- Given by skilled provider in functioning healthcare system
- Provided in manner respectful of woman, her newborn and family, and their culture
- Individualized to meet unique needs of woman, newborn, and family

Objectives of Evidence-Based Care
- Promote practices based on best available evidence
- Encourage clinicians to:
  - Value evidence above mere tradition or habit—“We’ve always done it this way.”
  - Access and evaluate new clinical data as it becomes available
  - Incorporate evidence into daily clinical practice (i.e., modify practices accordingly)
In an Ideal World…
• The most effective care for every condition is known
• Every clinician has access to and understands most up-to-date evidence
• Every clinician practices most effective care s/he knows

Levels of Evidence

<table>
<thead>
<tr>
<th>A</th>
<th>1a</th>
<th>Systematic review of randomized controlled trials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1b</td>
<td>Individual randomized controlled trials</td>
</tr>
<tr>
<td>B</td>
<td>2x</td>
<td>Systematic review of cohort studies</td>
</tr>
<tr>
<td></td>
<td>2a</td>
<td>Individual cohort studies</td>
</tr>
<tr>
<td></td>
<td>3a</td>
<td>Systematic review of case-control studies</td>
</tr>
<tr>
<td></td>
<td>3b</td>
<td>Individual case-control studies</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>Case studies</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>Expert opinion without explicit critical appraisal</td>
</tr>
</tbody>
</table>

Importance of Rationales
• Practices should be based on firm rationales
• Provider should know why practice is important:
  • What condition can be detected by conducting this part of examination?
  • What condition may be prevented by giving this supplement?
• Understanding rationales helps provider focus assessment and care provision
The Skilled Provider

• Term refers to person with certain core competencies rather than specific cadre of professionals

• Skilled provider:
  • has knowledge, skills, and qualifications needed to provide essential (basic and life-saving) care throughout child-bearing cycle
  • can provide this care in any setting (e.g., home, clinic, hospital)

• Presence of skilled provider can have significant impact on reducing maternal and newborn deaths

Core Competencies/Responsibilities of Skilled Provider

• Gathers relevant information: history, physical examination, testing

• Analyzes information to plan and implement appropriate care

• Provides quality care for woman and her baby throughout childbearing cycle

• Recognizes potential problems

Core Competencies/Responsibilities of Skilled Provider (cont.)

• Manages problems and complications: stabilizes (as needed), treats, and/or refers (as needed)

• Evaluates care on ongoing basis; modifies care plan as needed

• Continually learns and seeks to strengthen services

• Supports linkages among providers/facilities, communities, and families
### Slide 13

**Care Provision System**

- **Necessary infrastructure:**
  - adequate facilities and human resources
  - essential supplies and equipment
  - financing systems/schemes
  - roads
  - Functioning system for referral/transfer

### Slide 14

**Care Provision System (cont.)**

- **Quality assurance**
  - service delivery guidelines
  - mechanisms for ongoing assessment and improvement of systems
  - Systems for developing and maintaining clinical competence (preservice and inservice)

### Slide 15

**Emergency-Response System**

- **Identification:** Designated staff member performs quick check to assess for danger signs
- **Initial response:** If danger sign is identified, emergency-response procedures are initiated. Skilled provider is notified and performs:
  - Rapid initial assessment
  - Stabilization (if needed)
Slide 16

Emergency-Response System (cont.)
- **Management or referral/transfer.** Skilled provider manages complication/condition (depending on skills and resources) and/or urgently refers/transfers woman to CEOC facility
  - Responsibility beyond “pushing them out door”—must ensure:
    - safe, rapid transportation
    - care during transport
    - communication with referral facility
    - follow-up with client

Slide 17

CEOC Services
- Anesthesia
- Blood transfusion
- Surgical obstetrics, including:
  - Cesarean section
  - Repair of 3rd and 4th degree vaginal tears and extensive cervical tears
  - Laparotomy
  - Care for sick or low birthweight newborns

Slide 18

Woman-Friendly Care
- Provides services that are acceptable to woman:
  - Respects beliefs, traditions, and culture
  - Involves family, partner, or other support person in care
  - Includes relevant and feasible advice
  - Empowers woman and her family to become active participants in care
Slide 19

**Woman-Friendly Care (cont.)**

- Considers rights of woman:
  - Right to information about her health
  - Right to be informed about what to expect during visit
  - Obtains permission/consent prior to exams and procedures
- Ensures that all healthcare staff use good interpersonal skills
- Considers emotional, psychological, and social well-being of woman

Slide 20

**Woman-Friendly Care (cont.)**

- Respects and supports mother-baby dyad:
  - Encourages bonding
  - Keeps baby with mother
  - Places baby on mother’s abdomen (at breast) immediately after birth

Slide 21

**Male Involvement**

- Works to decrease provider bias against involvement of male partner
- Helps male partner to feel comfortable participating in care
- Makes special effort to include male partner in birth preparedness and complication readiness
- Targets couple during relevant counseling and health promotion
Culturally Appropriate Care

- Recognizes richness and spiritual significance of community and culture
- Is aware of traditional beliefs regarding pregnancy and childbirth
- Promotes cooperation and liaisons with traditional healthcare system when possible
- Includes culturally sensitive practices

Culturally Sensitive Practices

- Speak to woman in her own language
- Observe rules and norms of her culture as appropriate
- Be aware of who makes decisions in her life and involve that person in discussions and decisions
- Work with traditional birth attendants when possible
- Learn about traditional practices:
  - Promote/build upon positive traditional practices
  - Offer alternatives to those that are harmful

Individualization of Care

The provider modifies standard basic care package to:

- Address woman’s individual needs
- Take into consideration:
  - Findings from current history, including daily habits and lifestyle
  - Findings from current physical exam and tests
  - Cultural beliefs and customs
  - Any other unique circumstances
Linkages with Community
- Invite community to learn about, and shape, services
- Be aware of traditional care being provided in community
- Collaborate with community in developing transportation, financing, and communication systems around healthcare
- Organize activities to raise safe motherhood awareness in community

Working with Traditional Birth Attendants (TBAs)
- Include TBA in support of woman and her family
- Enlist TBAs to communicate health messages
- Partner with TBAs in identifying pregnant women in community
- Respond respectfully and promptly when TBAs bring women to facility

Summary
Quality basic care is:
- Based on evidence and rationales
- Given by skilled provider in functioning healthcare system
- Provided in manner that is respectful of woman, her newborn and family, and their culture:
- Individualized to meet unique needs of woman, newborn, and family
PRESENTATION 1B
KEY TOOLS IN BASIC CARE 1: CLINICAL DECISION MAKING, INTERPERSONNAL SKILLS, RECORD KEEPING

Slide 1
Basic Maternal and Newborn Care
Key Tools in Basic Care I: Clinical Decision-Making, Interpersonal Skills, Record Keeping

Slide 2
Session Objectives
By end of session, participants will be able to:
• Describe steps in clinical decision-making
• Discuss basic considerations in interpersonal skills
• Outline key principles of clear, concise, and accurate record keeping

Slide 3
Clinical Decision-Making
A purposeful, organized thinking process that links assessment with care provision and evaluation of care through series of logical steps
Slide 4

Steps in Clinical Decision-Making

1) Gather information
   - History
   - Physical examination
   - Testing

2) Interpret information
   - Consider each sign/symptom in context of other findings
   - Compare signs/symptoms to accepted descriptions/definitions of health and disease
   - Consult reliable sources of up-to-date information

Slide 5

Clinical Decision-Making (cont.)

3) Develop care plan
   - Based on assessment
   - Individualized
   - Collaborative—responsibility shared by care provider, woman, and family

4) Implement care plan—also collaborative

Slide 6

Clinical Decision-Making (cont.)

5) Evaluate care plan—and modify as needed
   - Monitor continuously
   - Compare present and past findings
   - Deem effective when:
     - Improves or maintains woman’s health
     - Restores abnormal findings to normal
     - Addresses woman’s needs
     - Is acknowledged as valuable by woman and her family
Slide 7

Interpersonal Skills

Verbal and nonverbal patterns of interaction that:
• Facilitate positive relationship with client
• Promote safe and comfortable environment
• Help ensure that client adheres to care plan and returns for continued care

Slide 8

Interpersonal Skills (cont.)

In general:
• Treat woman with respect and courtesy
• Use effective communication skills
• Ensure privacy and confidentiality
• Respond to woman’s emotional, as well as physical, needs
• Display professional attitude with both clients and coworkers

Slide 9

Effective Communication

Some key elements:
• Use simple, clear, and locally understood language
• Show respect for social norms and cultural beliefs
• Highlight important information by repetition or summarizing
Slide 10

Effective Communication (cont.)

- Encourage woman to ask questions and express concerns
- Listen carefully to what woman has to say
- Be honest, empathetic, and nonjudgmental

Slide 11

Privacy and Confidentiality

Some key considerations:
- Separate waiting area from care provision area
- Close and lock doors during visit and/or secure curtains to block view of client care area
- Allow woman to decide whether her companion will be included in all or any parts of her visit

Slide 12

Privacy and Confidentiality (cont.)

- Speak in low voice when discussing history or health status
- Have woman remove only necessary clothing; exit room while undressing; provide covering
- Store medical records securely
Slide 13

Interpersonal Skills for Physical Examination

- Explain to woman what is going to happen and why
- Be encouraging and supportive
- Preserve her privacy and respect her modesty
- Ensure that woman is as comfortable as possible on exam table

Slide 14

Interpersonal Skills for Physical Examination (cont.)

- Be gentle
- Obtain woman’s consent before proceeding with each part of examination
- Discuss findings as examination progresses

Slide 15

Key Principles in Effective Counseling

- Messages should:
  - be feasible
  - emphasize what woman needs to do and how to do it
  - be easy to understand and remember
Key Principles in Effective Counseling (cont.)

• Advice and counseling should:
  • be integrated with other components of care plan
  • be individualized to fit woman’s needs
  • be provided in manner that empowers woman to exercise informed choice
  • involve woman’s support system as appropriate

Tips for Effective Group Education

• Consider local needs for more information
• Ask questions to find out what group knows
• Introduce topic and state objective(s) at beginning
• Encourage all clients to participate and ask questions
• Use interactive approach and praise participation

Tips for Effective Group Education (cont.)

• Maintain eye contact with group
• Speak loudly enough for everyone to hear
• Use supplemental materials (e.g., visual aids) as appropriate
• Summarize key points at end
Slide 19

Record Keeping

Accurate record keeping is necessary for:
- Planning and evaluating client’s care
- Enabling continuity of care (over time)
- Facilitating communication (among healthcare workers and facilities)

Slide 20

Key Principles in Record-Keeping

- Prepare/update records as soon as possible
- Record all signs/symptoms that contribute to diagnosis
- Note absence of signs/symptoms relevant to diagnosis
- Note exact measurements and values where appropriate

Slide 21

Key Principles in Record-Keeping (cont.)

- Clearly distinguish between clinical observations and patient’s subjective experience
- Present findings as objectively as possible
- Be neat and avoid unnecessary abbreviations
- Store records in secure location
Summary
Integrated throughout, the following practices contribute to overall effectiveness of basic care:
• Clinical decision-making
• Interpersonal skills
• Record keeping
PRESENTATION 1C
KEY TOOLS IN BASIC CARE II: INFECTION PREVENTION PRACTICES

Slide 1

Basic Maternal and Newborn Care

Key Tools in Basic Care II: Infection Prevention Practices

Slide 2

Session Objectives

By end of session, participants will be able to:

• Describe disease transmission cycle
• Describe how infection prevention (IP) practices work
• Outline key IP principles
• Discuss appropriate handwashing and antisepsis

Slide 3

Session Objectives (cont.)

• Discuss appropriate gloving and personal protective equipment
• Outline safe handling of sharps
• Discuss proper instrument processing and waste disposal
The Six Components of Disease Transmission Cycle

1. Agent: Disease-producing microorganisms
2. Reservoir: Place where agent lives, such as in or on humans, animals, plants, soil, air, or water
3. Place of exit: Where agent leaves host
4. Mode of transmission: How agent travels from place to place (or person to person)
5. Place of entry: Where agent enters next host
6. Susceptible host: Person who can become infected

How Can We Prevent Spread of Infection?

• Inhibiting or killing infectious agent (applying antiseptic to skin prior to surgery)
• Blocking agent’s means of getting from infected person to susceptible person (handwashing or using alcohol-based hand rub)

How Can We Prevent Spread of Infection? (cont.)

• Ensuring that people, especially healthcare workers, are immune or vaccinated
• Providing healthcare workers with proper protective equipment to prevent contact with infectious agents
Why is Infection Prevention Important?
• Protects patients/clients—helps provide quality care that is also safe
• Lowers healthcare costs—prevention is less expensive than treatment
• Prevents infection among healthcare staff and community
• Limits number and spread of infectious agents that can become antibiotic-resistant

Key Infection Prevention Precautions
• Regard all clients, patients, and healthcare staff as infectious and at risk of infection
• Wash hands or use alcohol-based hand rub—the single most important factor for preventing infections
• Wear gloves before touching anything wet (e.g., broken skin, mucous membranes) or performing invasive procedures
• Wear personal protective equipment (PPE)—such as goggles, face masks, aprons, gloves—if splashes or spills of body fluids are anticipated
Key Infection Prevention Precautions (cont.)

- Use antiseptic agents before invasive procedures
- Follow safe work practices (e.g., proper waste disposal practices, not recapping or bending needles, proper instrument processing)
- Vaccinate staff who are in direct contact with patients/clients for: hepatitis B, rubella, measles, mumps, influenza

Handwashing

When to wash hands:
- Before and after examining client
- After contact with blood, body fluids, or soiled instruments even if gloves are worn
- Before and after removing gloves
- Upon arriving at and before leaving workplace

Alcohol-Based Hand Rub

- More effective than handwashing unless hands are visibly soiled
- 2 mL emollient (e.g., glycerin) + 100 mL ethyl or isopropyl alcohol 60–90%
Slide 13

Antisepsis

- Antisepsis for mucus membranes
  - Ask about allergic reactions
  - Use water-based product (e.g., iodophor or chlorhexidine), as alcohols may burn or irritate mucus membranes
- Skin preparation for injections
  - If skin is clean, antisepsis is not necessary
  - If skin appears dirty, wash with soap and water
  - Before giving injection, dry with clean towel

Slide 14

When to Glove

- When there is reasonable chance of contact with broken skin, mucous membranes, blood, or other body fluids
- When performing invasive procedure
- When handling:
  - Soiled instruments
  - Medical, or contaminated, waste
  - When touching contaminated surfaces

Slide 15

Guidelines for Gloving

- Wear separate pair of gloves for each woman/newborn to prevent spreading infection from client to client
- Wear high level-disinfected gloves for procedures involving contact with broken skin or tissue under skin
- Wear examination gloves for starting IV, drawing blood, or handling blood or body fluids
Slide 16

Guidelines for Gloving (cont.)

• Wear **utility gloves** for cleaning instruments, handling waste, and cleaning up blood and body fluids
• Surgical gloves can be re-used if decontaminated, washed, rinsed, and sterilized or high level-disinfected
• Never use gloves that are cracked or peeling or have holes

Slide 17

Personal Protective Equipment

• **Gloves**: utility, examination, HLD/sterile
• **Eyewear**: face shields, goggles, glasses
• **Aprons**
  - Should be fluid-resistant
  - Should be decontaminated after use
• **Footwear**
  - Protects from injury from sharps or heavy items
  - Should cover entire foot

Slide 18

Safe Handling of Sharps

• Never pass sharp instrument from one hand directly to another person’s hand
• After use, decontaminate syringes and needles by flushing three times with chlorine solution
• **Immediately** dispose of sharps in puncture-proof container
Safe Handling of Sharps (cont.)
- Do not recap, bend, break, or disassemble needles before disposal
- Always use needle holder when suture
- Never hold or guide needle with fingers

Instrument Processing
- Decontamination
  - Should be done immediately after use
  - Makes objects safer to handle
- Cleaning
  - Most effective way to reduce number of organisms
  - Removes visible dirt and debris

Instrument Processing (cont.)
- Sterilization
  - Destroys all microorganisms
  - Includes autoclave, dry heat, chemicals
- High level disinfection (HLD)
  - Destroys all microorganisms except bacterial endospores
  - Includes boiling, steaming, soaking
- Storage
  - After processing, must remain dry and clean
Slide 22

Housekeeping

- Each site should follow housekeeping schedule
- Always wear utility gloves when cleaning
- Clean from top to bottom
- Ensure that fresh bucket of disinfectant solution is available at all times

Slide 23

Housekeeping (cont.)

- Immediately clean up spills of blood or body fluids
- After each use, wipe off beds, tables, and procedure trolleys using disinfectant solution
- Decontaminate cleaning equipment with chlorine solution

Slide 24

Waste Disposal

- Separate contaminated waste from noncontaminated waste
- Use puncture-proof container for sharps and destroy when two-thirds full
Slide 25

Waste Disposal (cont.)

- Follow these steps to destroy contaminated waste and sharps:
  - Add small amount of kerosene to burn
  - Burn contaminated waste in open area downwind from care site
  - Dispose of waste at least 50 meters away from water sources

Slide 26

Summary

- Everyone (staff and patients) is at risk for infection
- This risk can be reduced through rigorous adherence to IP practices:
  - Handwashing or using alcohol-based hand rub
  - Antiseptics
  - Personal protective equipment, including gloving
  - Safe handling of sharps and needles
  - Instrument processing
  - Housekeeping and waste disposal
Slide 1

Basic Maternal and Newborn Care
Introduction to Antenatal Care

Session Objectives
By end of session, participants will be able to:
- Explain goals of antenatal care
- Define scope of basic antenatal care (ANC)
- Outline components of basic ANC visit

Focused ANC
- Focused ANC emphasizes quality of visits over quantity
- Is based on premise that every pregnant woman is at risk for complications
- Relies on evidence-based, goal-directed interventions appropriate to gestational age of pregnancy
Slide 4

Focused ANC (cont.)

• Targets most prevalent health issues affecting pregnant women
• Is given by skilled healthcare provider (midwife, doctor, nurse, etc., with basic midwifery and life-saving skills)

Slide 5

Goals of Antenatal Care

• Promotion of health and prevention of disease
• Detection of existing diseases and treatment
• Early detection and management of complications
• Birth preparedness and complication readiness

Slide 6

Health Promotion

• Healthcare messages and counseling empower women to take good care of themselves during pregnancy
• Messages should focus on information that will help to make healthy decisions during pregnancy, childbirth, and postpartum/newborn period
Slide 7

Health Promotion Topics

- Nutrition
- Counseling and testing for HIV
- Care for common discomforts
- Use of potentially harmful substances
- Prevention of infection/hygiene
- Rest and activity

Slide 8

Health Promotion Topics (cont.)

- Sexual relations and safer sex
- Early and exclusive breastfeeding
- Family planning
- Prevention of anemia and tetanus

Slide 9

Prevention Measures

- Tetanus toxoid immunization to prevent tetanus in woman and newborn
- Iron/folate supplementation to prevent iron deficiency—single most prevalent nutritional deficiency affecting pregnant woman and can lead to anemia
Prevention Measures (cont.)

- In disease- or deficiency-endemic areas:
  - Intermittent preventive treatment and insecticide-treated bednets for malaria
  - Presumptive treatment for hookworm infection
  - Vitamin supplementation
  - Iodine supplementation

Detection of Existing Diseases and Treatment

If not treated, existing diseases can complicate—or be complicated by—pregnancy. Examples include:

- Syphilis and STIs
- HIV/AIDS
- Hepatitis
- Malaria
- Tuberculosis
- Anemia
- Heart disease
- Diabetes
- Malnutrition

Early Detection and Management...

...of following complications can mean difference between survival and death for woman and newborn:

- Hemorrhage
- Obstructed labor
- Sepsis/infection
- Pre-eclampsia/eclampsia
Birth Preparedness and Complication Readiness

As part of focused ANC, skilled provider assists woman and her family in developing birth plan to:
• Help ensure arrangements are made for clean and safe birth with skilled provider
• Help family prepare for possible emergency—as every woman is at risk for complications and most complications cannot be predicted.

Birth Preparedness and Complication Readiness...

...includes making arrangements for following:
• Skilled provider to attend birth
• Appropriate place of birth
• Transportation of skilled provider
• Funds for normal birth
• Support/birth companion

Birth Preparedness and Complication Readiness (cont.)

• Items needed for clean and safe birth and for newborn
• Danger signs
• Emergency transportation and funds
• Blood donor
Scope of Basic Antenatal Care

Core components of basic care: to maintain normal

Additional care: to address common discomforts and special needs

Initial care for women with life-threatening complications

Majority of pregnant women need these services only

Some pregnant women require these services also

Fewer pregnant women require these services

Scheduling of ANC Visits

For normally progressing pregnancies, following scheduled visits are recommended:

- 1st visit – 16 weeks (by end of 4 months)
- 2nd visit – 24-28 weeks (6-7 months)
- 3rd visit – 32 weeks (8 months)
- 4th visit – 36 weeks (9 months)

Core Components of Basic ANC Visit

- Quick check
- Basic assessment
- Basic care provision
Quick Check
• Screens for danger signs or signs and symptoms of advanced labor:
• Helps to:
  • quickly identify woman who need immediate medical attention
  • stabilize (if necessary)
  • treat and/or refer as quickly as possible

Quick Check (cont.)
Danger signs:
• Severe headache/blurred vision
• Convulsions/loss of consciousness
• Breathing difficulty
• Fever (feeling of hotness)
• Foul-smelling discharge/fluid from vagina
• Vaginal bleeding
• Severe abdominal pain

Signs/symptoms of advanced labor:
• Strong, regular contractions
• Urge to push
• Leaking of fluid from vagina
• Grunting or moaning

Basic ANC Assessment
• Ensures maternal and fetal well-being
• Helps identify common discomforts and special needs
• Screens for conditions beyond scope of basic care, including life-threatening complications
Basic ANC Assessment (cont.)

- History
- Physical examination
  - General well-being
  - Blood pressure
  - Breasts
  - Abdomen
  - Genital
- Testing
  - Hemoglobin
  - RPR or VDRL for syphilis
  - HIV (if woman does not “opt out”) 
  - Blood group and Rh
  - Blood glucose, if applicable

Basic ANC Care Provision

- Helps maintain normal pregnancy
- Empowers woman to make adopt healthy practices
- Prepares woman and family for birth and possible complications
- Helps prevents certain diseases

Basic ANC Care Provision (cont.)

- Nutritional support
- Birth and complication readiness plan
- Self-care and other healthy practices
- HIV counseling and testing
- Immunizations and other preventive measures
Summary
Through targeted assessment and individualized care provision, focused ANC aims to:
- Promote health and prevent disease
- Detect and treat/refer existing diseases
- Detect and manage/refer complications
- Prepare woman and her family for birth and possible complications
PRESENTATION 2B
BASIC ANTENATAL CARE I: ASSESSMENT—HISTORY TAKING

Slide 1

Basic Antenatal Care I
Assessment: History Taking

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

Slide 2

Session Objective

• By end of session, participants will be able to explain steps of antenatal history taking

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

Slide 3

Basic Antenatal Assessment (cont.)

• Throughout assessment, provider adheres to principles of basic care and incorporates key tools:
  • Clinical decision-making
  • Interpersonal skills
  • Infection prevention practices
  • Record keeping

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------
Basic Antenatal Assessment (cont.)
During every visit:
- Consider each finding in context of other findings to:
  - Target assessment
  - Make more accurate diagnosis
- If abnormal signs/symptoms (s/s), conduct additional assessment

Basic Antenatal Assessment (cont.)
During return visits:
- Ensure continued normal progress
- Identify changes, both positive and negative
- Determine whether care plan has been effective or requires modification

Basic Antenatal Assessment
- History
- Physical Examination
- Testing
**Note:** Before performing basic assessment:
- Welcome woman
- Offer her (and companion, if she desires) seat
- Ensure that she has undergone quick check
Slide 7

History
Focus history taking on following areas:
- Personal history (1st visit)
- Menstrual history and contraceptive history/plans (1st visit)
- Present pregnancy (every visit)
- Daily habits and lifestyle (1st visit)
- Obstetric history (1st visit)
- Medical history (1st visit)
- Interim history (on return visits)

Slide 8

Personal Information (1st Visit)
Ask about:
- Woman’s name, age, phone number, address—to identify and contact her easily when needed
- Reliable transportation and access to funds—to guide birth planning
- Previous pregnancies and childbirths—to guide counselling and other care

Slide 9

Personal Information (cont.)
- Current/recent problems or concerns—if yes, ask general follow-up questions to determine nature of problem or concern
- Care from another provider—if yes, ask why she sought care and about care received
Personal Information (cont.)
- Consider this information in context of further assessment, and use to:
  - guide counseling and other care
  - identify special needs and other conditions that require additional care

Menstrual History and Contraceptive History/Plans (1st Visit)
- Ask about last menstrual period (LMP):
  - first day of LMP?
  - onset, flow, and duration normal?
  - using hormonal contraception or breastfeeding?
- If possible, calculate estimated date of childbirth (EDC)

Menstrual History and Contraceptive History/Plans (cont.)
- If necessary, confirm pregnancy with other methods:
  - symptoms of pregnancy
  - pelvic examination
  - testing
Slide 13

Menstrual History and Contraceptive History/Plans (cont.)

- Plans for more children:
  - How many?
  - When?
- Family planning methods:
  - Past use
  - Preferences
  - Plans for use after this baby is born
- Use this information to guide counseling and other care

Slide 14

Present Pregnancy (Every Visit)

- Ask whether she has felt any fetal movements
- If yes, ask:
  - When they began—useful for calculating/confirming EDC
  - Whether she has felt them in last day—if not, she requires further evaluation/additional care

Slide 15

Present Pregnancy (cont.)

- Take note of her and her family’s feelings about this pregnancy—to guide counseling and other care, and identify special needs and other problems
Daily Habits and Lifestyle (1st Visit)

As a healthcare provider, it's important to consider the following daily habits and lifestyle factors:

**Ask about:**
- daily workload
- sleep/rest
- dietary intake
- birth in last year
- currently breastfeeding

**Use this information to:**
- Determine whether there is balance between physical demands and dietary intake
- Guide counseling and other care

---

Daily Habits and Lifestyle (cont.)

- Ask whether she smokes, drinks alcohol, or uses other potentially harmful substances—to guide counseling and other care, and identify potential problems
- Inquire about her household (is she living with her husband, partner, children, or other family members?)—to guide birth planning

---

Daily Habits and Lifestyle (cont.)

- Inform her that you are going to ask some personal questions that you ask of all clients:
  - Has anyone restricted her mobility or threatened her life?
  - Has anyone physically harmed her?
  - Is she frightened of anyone?
Slide 19

Daily Habits and Lifestyle (cont.)
- If yes, she requires further evaluation/additional care (special need)
- If no or she is not comfortable answering, tell her she can discuss this issue with you at any time

Slide 20

Obstetric History (1st Visit)
Poor obstetric history does not necessarily require special care but helps provider:
- Understand woman’s concerns in this pregnancy
- Emphasize importance of skilled provider at every birth

Slide 21

Obstetric History (cont.)
- If not woman’s first pregnancy, ask about complications during previous pregnancy, childbirth, or postpartum/newborn period
- If yes, she requires further evaluation/additional care (special need)
Obstetric History (cont.)
- Ask whether she has had any problems with breastfeeding—to guide counseling and other care, and identify special needs and other problems

Medical History (1st Visit)
Ask whether diagnosed with:
- Allergies—if yes, avoid known allergens
- HIV, anemia, or syphilis—if yes, she requires further evaluation/additional care (special need)
- Heart disease, diabetes, or other chronic condition—if yes, facilitate nonurgent referral/transfer

Medical History (cont.)
Ask whether she has had:
- Previous hospitalization or surgery or is taking any medications/drugs—to guide counseling and other care, and identify special needs and other problems
- A complete series of tetanus toxoid (TT) vaccines—to assess her need for TT, according to recommended TT schedule
Interim History (Return Visits)

- **Current/recent problems or concerns**—if yes, ask general follow-up questions to determine nature of problem or concern
- **Care from another provider**—if yes, ask why she sought care and about care received

Interim History (cont.)

- Consider this information in context of further assessment, and use to:
  - guide counseling and other care
  - identify special needs and other conditions that require additional care

Interim History (cont.)

- Ask whether any of following have changed since her last visit:
  - personal information
  - daily habits or lifestyle
  - medical history
  - Check whether she has been unable to adhere to plan of care
Slide 28

Interim History (cont.)
- Note any reactions or side effects to immunizations or drugs/medications given at last visit
- Use this information to:
  - maintain accuracy of woman’s medical records
  - guide further assessment and identify problems
  - determine changes that need to be made in current plan of care

Slide 29

Summary
- A focused history is part of basic assessment
- Assessment is the foundation upon which the care plan is designed and implemented
Basic Maternal and Newborn Care: Basic Antenatal Care
JHPIEGO/Maternal and Neonatal Health Program

PRESENTATION 2C
BASIC ANTENATAL CARE II: ASSESSMENT—PHYSICAL EXAMINATION

Slide 1
Basic Antenatal Care II
Assessment: Physical Examination

Slide 2
Session Objective
• By end of session, participants will be able to describe basic components of antenatal physical examination

Slide 3
Basic Antenatal Assessment
• History
• Physical Examination
• Testing
Note: Information gathered through history-taking should be taken into consideration during physical examination
Physical Examination
Focus physical examination on following:
• General well-being (every visit)
• Blood pressure (every visit)
• Breasts (1st visit, as needed based on s/s)
• Abdomen (every visit)
• Genitals (1st visit, as needed based on s/s)

General Well-Being (Every Visit)
• Gait and movement—no limp, steady/moderately paced
• Facial expression—alert, responsive, calm
• General cleanliness—no visible dirt, odor
• Condition of skin—no lesions, bruises
• Color of conjunctiva—pink

Use findings to:
• Identify problems (e.g., conjunctival pallor can be sign of anemia, bruises may be sign of abuse)
• Guide counseling and other care
Blood Pressure Measurement (Every Visit)
- Note whether systolic and diastolic blood pressures are within normal range
  - Systolic 90 to 140 mmHg
  - Diastolic less than 90 mmHg

Blood Pressure Measurement (cont.)
- If systolic less than 90 or diastolic more than 110 mmHg, perform rapid initial assessment
- Diastolic more than 90 mmHg requires urgent further evaluation/additional care (life-threatening complication)

Visual Inspection of Breasts (1st Visit, as needed)
- Contour—regular contour, no dimpling or visible lumps
- Texture—smooth skin, no puckering; no areas of scaliness, thickening, or redness; no lesions, sores, or rashes
- Nipples—no abnormal nipple discharge, no inverted nipples; normal variation: colostrum after 6 weeks' gestation
Abdominal Examination (Every Visit—except as noted)

- **Surface of abdomen** (1st visit)
- **Fundal height** (after 12 weeks’ gestation)
- **Fetal parts and movements** (between 20 weeks’ and term gestation)
- **Fetal lie and presentation** (all after 36 weeks’ gestation)
- **Fetal heart tones** (after 20 weeks’ gestation)

Abdominal Examination (cont.)

- **Surface of abdomen** (1st visit)—no scars from previous cesarean or uterine surgery
  - Previous cesarean/uterine surgery requires further evaluation/additional care (special need)

Abdominal Examination (cont.)

- **Fundal height** (after 12 weeks’ gestation)
  - Uterus feels firm
  - Height increases and does not decrease between visits
  - Height is consistent with EDC and local standards
Slide 13

**Fundal Height Measurement**

12–22 weeks
- palpate above symphysis pubis
- distance between top of fundus and symphysis pubis or umbilicus

22+ weeks
- use tape measure
- from upper edge of symphysis pubis to top of fundus

Slide 14

**Abdominal Examination (cont.)**

- Fetal parts and movements
  - After 24+ weeks, fetal parts are palpable
  - After 22+ weeks, fetal movements may be felt
  - If fetus is not palpable or pregnancy is in doubt, pregnancy should be confirmed through pelvic exam or urine pregnancy test

Slide 15

**Abdominal Examination (cont.)**

- Fetal lie and presentation (at/after 36 weeks’ gestation)
  - At 36 weeks—normally in longitudinal lie; cephalic/vertex presentation
  - After 36 weeks, head may be:
    - Fixed, engaged
    - Dipping into pelvis
    - Free and floating
Slide 16

Fundal Palpation
To determine which fetal part is at top of uterus:
- Place both hands on sides of fundus at top of abdomen
- Use finger pads to assess consistency/mobility of fetal part

Slide 17

Lateral Palpation
To feel for fetal back:
- Move hands smoothly down sides of uterus
- Smooth and firm versus knobby and moveable

Slide 18

Pelvic Palpation (Supra Pubic)
To feel presenting part:
- Place hands on sides of uterus, palms below umbilicus, fingers toward symphysis pubis
- Grasp fetal part
Abdominal Examination (cont.)

- Fetal heart tones (after 20 weeks' gestation)
  - By 12 weeks, fetal heart tones are heard with Doppler stethoscope or electronic fetal stethoscope
  - By 20+ weeks, fetal heart tones are heard with Pinard fetoscope
  - Normal fetal heart rate is from 120 to 160 beats per minute (during pregnancy only, not in labor)

Abdominal Examination (cont.)

- Abnormal or absent fetal heart tones require urgent further evaluation/additional care (life-threatening complication)

Genital Examination (1st Visit, as needed)

- Interpersonal skills reminders
  - Tell her what you are going to do before each step
  - Cover/drape woman to ensure privacy and respect modesty
  - Touch inside of thigh first
- Infection prevention reminders
  - Wash hands
  - Use new or high level-disinfected gloves on both hands
Genital Examination (cont.)

- Vaginal opening—no signs of female genital cutting
- Skin—no sores, ulcers, warts, nits, or lice
- Labia—soft, not painful
- Vaginal secretions—no blood or foul-smelling, yellow/green discharge; no urine or stool
- Skene’s and Bartholin’s glands—not painful, no discharge when milked

---

Genital Examination (cont.)

- Female genital cutting requires further evaluation/additional care (special need)
- Other abnormalities may require nonurgent referral/transfer

---

Summary

- A focused physical examination is part of basic assessment
- Assessment is the foundation upon which the care plan is designed and implemented
Slide 1

Basic Antenatal Care III
Assessment: Testing

Slide 2

Session Objective
• By end of session, participants will be able to describe principles of lab tests required for providing basic antenatal care

Slide 3

Basic Antenatal Assessment
• History
• Physical Examination
• Testing
Note: Information gathered through history-taking and physical examination should be taken into consideration during testing
Testing

Focus testing on following:
- Hemoglobin levels (1st visit/as needed)
- RPR or VDRL, for syphilis (1st visit)
- HIV (1st visit/as needed, if woman does not “opt out”)
- Blood group and RH (1st visit)
- Urine glucose (1st visit, if applicable)

Hemoglobin Levels

Conducted at 1st visit/as needed based on signs, symptoms and/or history
- Normal: 11 g/dL or more
- Levels less than 7 g/dL indicates severe anemia and requires urgent referral/transfer
- Levels 7–11 g/dL requires further evaluation/additional care (special need)

Hemoglobin Levels (cont.)

Using a Hemoglobinometer:
- Measure hemoglobin content by comparing color of light passing through hemolyzed blood sample with standard color
- Results expressed in grams of hemoglobin per 100 ml of blood
Slide 7

Hemoglobin Levels (cont.)

Using WHO Haemoglobin Colour Scale:
- Compare bloodstain on test paper with color scale in good light with colors in color scale booklet
- Each shade of color on scale has its own hemoglobin value

Slide 8

Rapid Plasma Reagent (RPR)* Test

Conducted at 1st visit
- Normal: negative
- Positive test indicates syphilis and requires further evaluation/additional care (special need)
* Conduct VDRL (venereal disease research laboratory) if RPR not available

Slide 9

RPR Test (cont.)

Using test card and antigen:
- Test for reactivity by applying antigen to bloodstain on test card and checking for clumping in bright light
- Report as reactive or non-reactive
  - Reactive: Characteristic clumping
  - Non-reactive: Slight roughness or no clumping
HIV Counseling and Testing

Conducted at 1st visit, if woman does not "opt out"

- Positive test indicates HIV infection and requires further evaluation/additional care (special need)
- If woman opts out, test should be offered at all return visits
- Confidentiality of test and all HIV-related discussion essential

HIV Counseling and Testing

Pretest Counseling

- Assure confidentiality
- Help woman assess individual risk factors
- Discuss benefits of knowing status
- Explain how virus is transmitted
- Address local myths and rumors
- Provide information about test

HIV Counseling and Testing

Pretest Counseling (cont.)

- Provide information about results
  - Positive result indicates HIV infection
  - Negative indicates absence of HIV infection, but "window" may exist between infection and positive result
Slide 13

**HIV Counseling and Testing**

**Post-test Counseling**

If **negative**:
- Review risk factors
- Reinforce risk reduction practices
- Identify support for risk reduction

If **positive**:
- Provide emotional support
- Assess risk of abandonment/abuse
- Discuss issues of care, disclosure, impact on pregnancy, condom use, partner testing, immediate support needs

---

Slide 14

**Blood Group and RH**

Conducted at 1st visit:
- Most commonly: blood group is A, B, AB, or O; RH is positive
- If RH is negative, woman is candidate for anti-D immune globulin

---

Slide 15

**Urine Glucose**

Conduct at 1st visit/as needed if woman lives in area with high prevalence of diabetes:
- Normal: negative for glucose
- If negative, related early in 3rd trimester
- Positive for glucose requires nonurgent referral/transfer
Summary

- Focused testing is part of basic assessment
- Assessment is the foundation upon which the care plan is designed and implemented
PRESENTATION 3A
BASIC ANTENATAL CARE IV: CARE PROVISION

Slide 1

Basic Antenatal Care IV
Care Provision

Slide 2

Session Objective
• By end of session, participants will be able to describe main principles and elements of basic care provision during pregnancy

Slide 3

Basic Antenatal Care Provision
• Throughout care provision, provider adheres to principles of basic care and incorporates key tools:
  • Clinical decision-making
  • Interpersonal skills
  • Infection prevention practices
  • Record-keeping
Slide 4

**Basic Antenatal Care Provision (cont.)**

During every visit:
- Provide all elements of basic care package
- If abnormal s/s (based on assessment), provide additional care

---

Slide 5

**Basic Antenatal Care Provision (cont.)**

During return visit:
- Make necessary changes to care plan (based on assessment)
- Review and update birth and complication readiness plan
- Reinforce key messages
- Replenish supply of supplements and drugs/medications

---

Slide 6

**Basic Antenatal Care Provision (cont.)**

- Nutritional support
- Birth and complication readiness plan
- Self-care and other healthy practices
- HIV counseling and testing
- Immunizations and other preventive measures

*Note:* Information gathered through assessment should be taken into consideration during care provision.
Slide 7

Nutritional Support

- Eat balanced diet including variety of foods each day
- Have at least one extra serving of staple food per day
- Try smaller, more frequent meals if necessary
- Take micronutrient supplements as directed

Slide 8

Birth and Complication Readiness Plan

1st visit:
- Introduce concept and each element
- Assist in developing plan

Return visits:
- Check arrangements made
- Note changes and problems
- By 32nd week: finalize plan

Slide 9

Birth Plan Components

Overview—
- Skilled provider
- Items for clean and safe birth and for newborn
- Appropriate setting/healthcare facility
- Transportation/emergency transportation
- Funds/emergency funds
Birth Plan Components (cont.)

• Decision-maker / Decision-making process
• Support
  • Companion of choice
  • Care for family at home
• Blood donor
• Danger signs and signs of labor

Birth Plan Components (cont.)

• Skilled provider:
  • Assist woman in arranging for skilled provider to
    attend birth
  • Ensure that woman has contact information
• Items needed for clean and safe birth and
  for newborn:
  • Discuss appropriate items, depending on birth
    setting
  • Ensure that they are easily accessible

Birth Plan Components (cont.)

• Appropriate setting / healthcare facility
  • Assist in deciding:
    • Place of birth (e.g., home, hospital), depending on
      individual needs
    • For possible complications: facility woman should
      go to if danger signs arise
Birth Plan Components (cont.)

- Transportation / emergency transportation
  - Ensure reliable/accessible transportation to place of birth (for her or skilled provider) and to appropriate facility for emergency care

Birth Plan Components (cont.)

- Funds/emergency funds
  - Ensure availability of funds (private or community) for care during normal birth or emergency

- Decision-making
  - Identify:
    - Key decision-maker
    - Who makes decisions in that person’s absence

Birth Plan Components (cont.)

- Support
  - Help choose individuals to:
    - Support her during labor/birth
    - Accompany her during transport
    - Take care of household during her absence

- Blood donor
  - Help choose appropriate blood donor in case of emergency
Birth Plan Components (cont.)

• Danger signs
  • Ensure that woman and family know danger signs, which indicate need to enact complication readiness plan

  • Vaginal bleeding
  • Breathing difficulty
  • Fever
  • Severe abdominal pain
  • Severe headache / blurred vision
  • Convulsions / loss of consciousness
  • Foul-smelling discharge / fluid from vagina
  • Decreased / absent fetal movements
  • Leaking of greenish / brownish (meconium-stained) fluid from vagina

Birth Plan Components (cont.)

• Signs of labor
  • Ensure that woman and family know signs of labor, which indicate need to contact skilled provider and enact birth preparedness plan:
    • Regular, progressively painful contractions
    • Lower back pain radiating from uterus
    • Bloody show
    • Rupture of membranes
Self Care and Other Healthy Practices

Tips:
- Individualize messages based on woman’s history and other relevant findings
- Encourage woman’s partner to be present during these discussions
- Counseling on breastfeeding and other postpartum/newborn topics may be more effective later in pregnancy

Use of Potentially Harmful Substances

- Tobacco, alcohol, and drugs / medications may be harmful to pregnant woman and fetus
- Woman should inform provider of any currently taking; inquire before taking new ones
- Skilled provider will only prescribe drugs / medications that are necessary and safe

Prevention of Infection/Hygiene

- Good hygiene (handwashing, safe food and water preparation/handling, bathing and general cleanliness)—especially important for pregnant women because more vulnerable to germs
- Dental hygiene—hormonal changes cause gum swelling/sensitivity
Slide 22

Rest and Activity

- Increase rest time
- Avoid lying on back (lying on left side with legs elevated is best)
- Avoid sitting or standing for long periods
- Decrease workload; avoid overexertion and carrying heavy loads
- Use proper body mechanics

Slide 23

Sexual Relations and Safer Sex

- Having or contracting a STI (e.g., HIV, syphilis, gonorrhea, chlamydia) during pregnancy is dangerous to woman, her partner, and their unborn baby
- Practicing safer sex can reduce this risk

Slide 24

Sexual Relations and Safer Sex (cont.)

- Abstinence or mutually monogamous sex with uninfected partner—only sure protection
- Consistent use of condoms—important, even during pregnancy
- Avoidance of sexual practices that may further increase risk of infection (e.g., anal sex)
Slide 25

Sexual Relations and Safer Sex (cont.)

- During pregnancy, decrease or increase in woman’s sexual desire is common
- Sexual intercourse for normally progressing pregnancy will not harm woman or fetus

Slide 26

Early and Exclusive Breastfeeding*

- Benefits
- General principles
- Breastfeeding guidelines and breastfeeding support—provide as needed

*For HIV-negative women

Slide 27

Early and Exclusive Breastfeeding (cont.)

Benefits:
- Provides best nutrition for baby
- Is cost-effective/affordable
- Promotes mother-baby bonding
- Provides lactational amenorrhea, delaying return of fertility
Slide 28

Early and Exclusive Breastfeeding (cont.)

General principles:
• Start within first hour after birth; continue to 6 months of age.
• Colostrum is given to baby, not thrown away.
• Breastfeed exclusively—give baby no other fluids or foods.
• Breastfeed on demand—to stimulate adequate production of breastmilk.

Slide 29

Family Planning

• Birthspacing—intervals of at least 3 years beneficial to women and babies.
• Safe methods for postpartum women.
• Return of fertility after birth.
  • Not predictable.
  • Can occur before menstruation resumes.

Slide 30

HIV Counseling and Testing

• 1st visit:
  • Ensure confidentiality of testing and all HIV-related discussion.
  • Provide pretest counseling.
• Return visit (after testing): provide post-test counseling.
Slide 31

HIV Counseling and Testing (cont.)

- Pretest counseling:
  - Individual risk factors
  - HIV transmission
  - Risk reduction
  - Local myths and false rumors
  - Testing

Slide 32

HIV Counseling and Testing (cont.)

- Post-test counseling:
  - For negative result:
    - Result
    - Individual risk factors—review
    - Risk reduction—review
    - Support for risk reduction
  - A positive results indicates HIV and requires special post-test counseling, plus further evaluation/additional care (special need)

Slide 33

Immunization and Other Preventive Measures

- Tetanus toxoid immunization
- Iron / folate supplementation
- Region / population-specific preventive measures
Slide 34

Immunization and Other Preventive Measures (cont.)

Tetanus toxoid (TT) immunization:
- Give 0.5 mL IM in upper arm, as needed according to schedule
- Update immunization card
- Provide related messages / counseling
  - Adhering to TT schedule
  - Planning for clean and safe birth
  - Protecting newborn

Slide 35

Immunization and Other Preventive Measures (cont.)

Tetanus Toxoid Immunization Schedule

<table>
<thead>
<tr>
<th>TT Injection</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT 1</td>
<td>At first contact with woman of child bearing age or as early as possible in pregnancy (at 1st ANC visit)</td>
</tr>
<tr>
<td>TT 2</td>
<td>At least 4 weeks after TT 1</td>
</tr>
<tr>
<td>TT 3</td>
<td>At least 6 months after TT 2</td>
</tr>
<tr>
<td>TT 4</td>
<td>At least 1 year after TT 3</td>
</tr>
<tr>
<td>TT 5</td>
<td>At least 1 year after TT 4</td>
</tr>
</tbody>
</table>

Slide 36

Immunization and Other Preventive Measures (cont.)

Iron / folate supplementation:
- To prevent anemia, prescribe: iron 60 mg + folate 400 mcg orally once daily throughout pregnancy
- Dispense supply to last until next visit
- Provide related messages/counseling...
Immunization and Other Preventive Measures (cont.)

- Eat foods rich in vitamin C, which help iron absorption
- Avoid tea, coffee, and colas, which inhibit iron absorption
- Possible side effects of iron/folate—black stools, constipation, and nausea
- Ways to lessen side effects

Immunization and Other Preventive Measures (cont.)

In areas of endemic disease/deficiency:
- Intermittent preventive treatment (IPT) and insecticide-treated nets (ITNs) for malaria
- Presumptive treatment for hookworm infection
- Vitamin supplements
- Iodine supplements

Scheduling Return Visit

- Schedule next visit; discuss its importance
- Provide contact information for facility/provider
- Address any final questions
- Advise her to bring:
  - records to each visit
  - partner or companion to at least one visit
- Ensure that she knows danger signs and to return for care if problems arise
- Thank her for coming
Summary
Focused antenatal care provision helps ensure:
• Nutritional support
• Birth preparedness and complication readiness
• Self-care and other healthy practices
• HIV counseling and testing
• Immunizations and other preventive measures
PRESENTATION 3B
ADDITIONAL CARE 1: COMMON DISCOMFORTS OF PREGNANCY

Slide 1
Additional Care I
Common Discomforts of Pregnancy

Slide 2
Session Objective
By end of session, participants will be able to:
• explain some common discomforts of pregnancy
• describe additional care for women who have them

Slide 3
Overview
Common discomforts/concerns:
• changes, signs and symptoms, and physical and emotional behaviors that may occur during pregnancy, labor/childbirth, and postpartum/newborn period
• cause discomfort or concern but are usually normal
Overview

- Women who present with s/s of common discomforts require care in addition to the core components of basic care. This may consist of:
  - Additional assessment
  - Additional care

Overview (cont.)

- During assessment: Confirm that woman’s discomfort within normal range
- During care provision:
  - Reassure—no threat to her or fetus
  - Explain anatomic/physiologic basis in simple terms
  - Counsel on prevention and relief measures
  - Advise to return for care if symptoms worsen or danger signs or alert signs arise

Common Discomforts: Abdomen, Breasts, and Legs

- Abdominal (or groin) pain—cramps, twinges, pain on sides of lower abdomen
- Breast changes—size, tenderness or tingling, thin, clear/yellowish discharge (1st trimester)
- Cramps, twinges, pain on sides of lower abdomen (2nd-3rd trimester)
Common Discomforts: Abdomen, Breasts, and Legs (cont.)

- Leg cramps—sudden in onset, of short duration (2nd–3rd trimester)
- Swelling (edema) of ankles and feet—appears after sitting standing long, disappears after rest and elevating feet (2nd–3rd trimester)

Example: Leg Cramps

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures</th>
<th>Health signs—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visionary abnormality</td>
<td>- Elevate leg</td>
<td>- Localized pain over vein</td>
</tr>
<tr>
<td></td>
<td>- Apply warm cloth</td>
<td>- Superficial thrombophlebitis</td>
</tr>
<tr>
<td></td>
<td>- Straighten knee and flex</td>
<td>- Calf tenderness</td>
</tr>
<tr>
<td></td>
<td>foot upward</td>
<td>- Swelling with fever</td>
</tr>
<tr>
<td></td>
<td>- Take frequent breaks from</td>
<td>- Deep-vein thrombosis</td>
</tr>
<tr>
<td></td>
<td>sitting or standing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Wear support hose</td>
<td></td>
</tr>
</tbody>
</table>

Example: Swelling of Ankles and Feet

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures</th>
<th>Health signs—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hormonal changes cause</td>
<td>- While lying down, lie on</td>
<td>- Headache, blurred vision</td>
</tr>
<tr>
<td>increased sodium, vein</td>
<td>left side</td>
<td>—other signs of pre-eclampsia-</td>
</tr>
<tr>
<td>congestion, capillary</td>
<td>- Elevate feet</td>
<td>- eclampsia</td>
</tr>
<tr>
<td>leakage</td>
<td>- Change position frequently</td>
<td>- Palp: oedema/edema</td>
</tr>
<tr>
<td></td>
<td>- Increase intake of fluid</td>
<td>- other sign of severe anemia</td>
</tr>
<tr>
<td></td>
<td>- Avoid tight garters or</td>
<td>- Six of superficial thrombosis</td>
</tr>
<tr>
<td></td>
<td>waist around legs</td>
<td>- and deep-vein thrombosis</td>
</tr>
</tbody>
</table>
Slide 10

Common Discomforts: Digestion and Elimination

- Bowel function changes—constipation or diarrhea (2nd–3rd trimester)
- Food cravings or pica (1st–3rd trimester)
- Gas, bloating, or loss of appetite (2nd–3rd trimester)
- Heartburn or indigestion (2nd–3rd trimester)

Slide 11

Common Discomforts: Digestion and Elimination (cont.)

- Nausea or vomiting (1st trimester)
- Salivation, increased (1st–3rd trimester)
- Urination, increased—increase in frequency (nocturnal), leaking of urine while sneezing, coughing or laughing (1st–3rd trimester)

Slide 12

Example: Bowel Function Changes

<table>
<thead>
<tr>
<th>Analytic physiologic basis</th>
<th>Prevention and relief measures—resources</th>
<th>Alert s/s—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constipation</td>
<td>Increase intake of fiber and fluids; Defecate when urge is felt; Avoid laxatives; Walk within 6 hours of normal bowel movements; Increase exercise daily; For diarrhea, also: Ensure intake of electrolytes</td>
<td>Rapidly progressing difficulty in defecating; Gas, vomiting and other signs of bowel obstruction; Diarrhea with fever; Bleeding, cramping, loss of stool—loss of bowel control; Inflammatory and infectious diarrhea</td>
</tr>
<tr>
<td>Hormonal changes relax smooth muscles</td>
<td>Poor diet or inadequate intake of fluid; Overuse</td>
<td></td>
</tr>
</tbody>
</table>
### Example: Food Cravings or Pica

**Anatomic/physiologic basis:***
- Unclear etiology—probably influenced by tradition

**Prevention and relief measures—reassurance and:***
- Reinforce importance of eating balanced diet and avoiding unhealthy foods (e.g., candy) and nonfood substances (e.g., dirt, chalk, clay)
- Suggest alternative activity or foods

**Alerts/s/s—may indicate problem:***
- NA

### Example: Gas, Bloating, or Loss of Appetite

**Anatomic/physiologic basis:***
- Hormonal changes relax smooth muscles
- Pressure from enlarged uterus on bowels
- Increases swallowing of air

**Prevention and relief measures—reassurance and:***
- Reinforce importance of balanced diet and adequate rest and exercise, and advise to:
  - Chew food thoroughly
  - Maintain regular bowel habits
  - Avoid gas-forming foods
  - Hormonal changes relax smooth muscles
  - Pressure from enlarging uterus on bowels
  - Increased swallowing of air

**Alerts/s/s—may indicate problem:***
- Fatigue, weakness, weight loss—malnutrition or other chronic illness
- S/s of bacterial or parasitic infection

### Example: Heartburn or Indigestion

**Anatomic/physiologic basis:***
- Gastric reflux due to pressure from enlarging uterus
- Hormonal changes—relaxation of cardiac sphincter

**Prevention and relief measures—reassurance and:***
- Eat smaller, frequent meals
- Increase intake of fiber
- If needed, short course of nonacid, low-sodium antacids
- Avoid calcium, sodium bicarbonate

**Alerts/s/s—may indicate problem:***
- Epigastric pain, headache, blurred vision—pre-eclampsia
- Upper abdominal pain relieved by food but recurs 2-3 hours—peptic ulcer
Example: Nausea or Vomiting

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures—measures to ease</th>
<th>Anot HS—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea/diarrhea—may be related to</td>
<td>Eat crackers, dry bread, etc., before arising in morning</td>
<td>Sci of hyperemesis, appendicitis, gall bladder disease, preeclampsia, pre-eclampsia</td>
</tr>
<tr>
<td>Hormonal changes</td>
<td>Take short walks, get fresh air</td>
<td></td>
</tr>
<tr>
<td>Smooth muscle relaxation</td>
<td>Avoid fatty, spicy food</td>
<td></td>
</tr>
<tr>
<td>Carbohydrate metabolism</td>
<td>Fatigue</td>
<td></td>
</tr>
</tbody>
</table>

Unclear etiology—may be related to:
- Hormonal changes
- Smooth muscle relaxation
- Carbohydrate metabolism
- Fatigue

Example: Urination, Increased

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures—measures to ease</th>
<th>Anot HS—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uterus pressure on bladder</td>
<td>Void when urge is felt</td>
<td>Transient pain, burning—urinary tract infection</td>
</tr>
<tr>
<td>Nocturnal release of trapped water from lower extremities</td>
<td>Limit intake of coffee, tea (but do not restrict fluid intake)</td>
<td>Increased thirst—diabetes mellitus</td>
</tr>
<tr>
<td>Increase of body fluid volume</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Common Discomforts: Genitals

- Vaginal discharge (1st–3rd trimester)
Example: Vaginal Discharge

### Anatomic/Physiologic Basis
- Increase in vascularization of genital tract, causing excessive mucus production.

### Prevention and Relief Measures
- Reinforce importance of good hygiene, and advise:
  - Wash hands before touching.
  - Wear cotton underpants.
  - Avoid douching.

### Alert Signs—May Indicate Problems
- Signs of STI, vaginitis, abruptio placentae, rupture of membranes.

### Common Discomforts: Skin
- Itchiness (1st–3rd trimester)
- Perspiration, increased (2nd–3rd trimester)
- Skin changes—acne; blotchiness or darkening of skin on face, breasts, abdomen (chloasma); dryness or reddish palms or soles (1st–3rd trimester)
- Spider nevi—vascular “spiders” (tiny, red, raised lines that branch out from flat or raised center) around eyes or on neck, throat, arms (1st–2nd trimester)
- Stretch marks—reddish or whitish streaks on breasts, abdomen, upper thighs (2nd–3rd trimester)
Slide 22

Common Discomforts: Skin (cont.)

- Varicose veins—swollen blue veins on legs or genitals, may be painful (2nd–3rd trimester)

Slide 23

Example: Itchiness

Anatomical/physiologic basis
- Papules, macules, pustules—dermatosis
- Loss of appetite, nausea, intolerance of fatty foods—gall bladder disease

Prevention and relief measures—reassurance and:
- Topical antipruritics or moisturizing cream
- If needed: short course of antihistamine (diphenhydramine, doxylamine succinate)

Alert signs—may indicate problem
- Enlarged genital stretching skin
- Increased perspiration
- Familial tendency

- Localized pain over vein, swelling—superficial thrombophlebitis
- Calf tenderness, swelling with fever—deep vein thrombosis

Slide 24

Example: Varicose Veins

Anatomical/physiologic basis
- Pressure from enlarging uterus leads to venous congestion
- Familial tendency

Prevention and relief measures—reassurance
- When sitting up or lying down, slightly elevate feet/legs
- Lie on left side
- Wear support hose
- Avoid sitting or standing for long periods

Alert signs—may indicate problem
- Localized pain over vein, swelling—superficial thrombophlebitis
- Calf tenderness, swelling with fever—deep vein thrombosis
Common Discomforts: Sleep and Mental State

- Dreams (vivid) or nightmares (1st–3rd trimester)
- Fatigue or sleepiness (1st trimester)
- Feelings of worry or fear about pregnancy and labor (1st–3rd trimester)
- Insomnia (2nd trimester)
- Mood swings (1st trimester)

Example: Fatigue or Sleepiness

Possible causes:
- Decrease in metabolism
- Increase in blood flow and pulse
- Emotional stress

Prevention and relief measures:
- Reinforce importance of balanced diet and adequate exercise and rest; advise to:
  - Take micronutrients as directed
  - Avoid overexertion
  - Avoid smoking, alcohol

Possible causes:
- Decrease in metabolism
- Increase in blood flow and pulse
- Emotional stress

Insomnia, decreased appetite or thirst, inappropriate sadness or guilt—may indicate depression.
- Poor general condition, weakness, wasting—malnutrition or other chronic illness.

Common Discomforts: Miscellaneous

- Back pain (2nd–3rd trimester)
- Bleeding or painful gums (2nd trimester)
- Difficulty getting up/down (2nd–3rd trimester)
- Dizziness or fainting (1st–3rd trimester)
- Hair loss (3rd trimester)
- Headache (1st–3rd trimester)
Common Discomforts: Miscellaneous (cont.)

- Heart palpitations—fluttering or pounding sensation around the heart (1st trimester)
- Hemorrhoids—swollen veins in and around rectum, with pain, itching, and bleeding (2nd–3rd trimester)
- Hip pain—usually on one side only (3rd trimester)
- Hyperventilation or shortness of breath (3rd trimester)
- Nasal stuffiness or nasal bleeding (2nd–3rd trimester)
- Numbness/tingling of fingers and toes—may also occur in buttocks, hips, and thighs (2nd–3rd trimester)
- Walking awkwardly (waddling) or clumsiness (2nd–3rd trimester)

Example: Back Pain

Anatomic/physiologic basis
- Connective tissue changes
- Shift in woman’s center of gravity
- Separation of anterior abdominal muscles

Prevention and relief measures—measures and
- Practice good body mechanics, such as:
  - When lifting, squat
  - Do not cross legs
  - Maintain good posture when standing/kneeling
  - Sleep on firm mattress
  - Wear supportive bra
  - Practice “angry cat” exercises
  - If needed, prescription

Signs/symptoms that indicate problem
- Onset of contractions/pain
- Onset of labor, neurologic disease
Example: Bleeding or Painful Gums

- **Anatomic/physiologic basis**: Hormonal changes—increased blood flow to mouth with edema in connective tissues.
- **Prevention and relief measures—measures to relieve pain**: Reinforce importance of good dental hygiene.
- **Alert signs—may indicate problem**: Rule out gingivitis.

Example: Difficulty Getting Up and Down

- **Anatomic/physiologic basis**: Hormonal changes—connective tissue softer and looser.
- **Prevention and relief measures—measures to relieve pain**: When getting up from lying down, roll to one side and push up on knees. Avoid lying flat on back.
- **Alert signs—may indicate problem**: Numbness, weakness, wasting, difficulty urinating or defecating—neurologic disease.

Example: Dizziness or Fainting

- **Anatomic/physiologic basis**: Postural hypotension—hemodynamic changes.
- **Prevention and relief measures—measures to relieve pain**: Get up slowly from sitting or lying position. Lie on side. Fatigue, paleness, breathlessness, rapid heartbeat—severe anemia.
- **Alert signs—may indicate problem**: Sudden lower abdominal pain, followed by fainting, vaginal bleeding—ruptured ectopic pregnancy.
### Slide 34: Example: Headache

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures</th>
<th>Alert signs—may indicate problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache, neck and shoulder pain, muscle spasm, emotional stress</td>
<td>Massage neck and shoulders, short course of paracetamol</td>
<td>Headache, neck and shoulder pain, muscle spasm, emotional stress, fatigue</td>
</tr>
</tbody>
</table>

- Migraine, acute sinusitis, pre-eclampsia
- Massage neck and shoulders
- If needed: short course of paracetamol
- Avoid aspirin, ibuprofen, narcotics, sedatives, hypnotics

### Slide 35: Example: Heart Palpitation

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures</th>
<th>Alert signs—may indicate problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortness of breath, anxiety about possible heart disease</td>
<td>Advise to return if symptoms worsen, danger/alert signs arise</td>
<td>Shortness of breath, anxiety about possible heart disease</td>
</tr>
</tbody>
</table>

- Increase in blood flow to and from heart
- Sweating, palpitation, tightness in chest—severe anxiety

### Slide 36: Example: Hemorrhoids

<table>
<thead>
<tr>
<th>Anatomic/physiologic basis</th>
<th>Prevention and relief measures</th>
<th>Alert signs—may indicate problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constipation, anal pain and/or bleeding on defecation—may indicate anal fissure</td>
<td>Increase intake of fiber, sitz bath, if needed, topical anesthetic cream</td>
<td>Constipation, anal pain, and/or bleeding, or defecation may indicate anal fissure</td>
</tr>
</tbody>
</table>

- Hormonal changes—enlargement and congestion of rectal veins
- Pressure of enlarging uterus on rectal veins
- Constipation
Example: Hyperventilation

<table>
<thead>
<tr>
<th>Anatomic/Physiologic Basis</th>
<th>Prevention and Relief Measures</th>
<th>Alert signs—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hormonal changes causing lower levels of carbon dioxide and higher levels of oxygen</td>
<td>When lying down:</td>
<td>Sick of respiratory disorder, severe anemia, heart disease, pulmonary edema</td>
</tr>
<tr>
<td>Exhaling carbon dioxide pushes uterus out of place</td>
<td>Lie on side with knees and hip bent</td>
<td></td>
</tr>
<tr>
<td>Place pillow between knees and another under abdomen</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example: Nasal Stuffiness or Nasal Bleeding

<table>
<thead>
<tr>
<th>Anatomic/Physiologic Basis</th>
<th>Prevention and Relief Measures</th>
<th>Alert signs—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hormonal changes—capillary engorgement, vascular pooling</td>
<td>To stop nosebleed:</td>
<td>Bleeding is severe or more than three episodes of bleeding—bleeding disorder</td>
</tr>
<tr>
<td>Nasal mucous production</td>
<td>sit up, do not lie down or tilt head back</td>
<td></td>
</tr>
<tr>
<td>Local trauma or nasal polyps</td>
<td>gently pinch nostrils shut for a few minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>repeat several times until bleeding stops</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example: Numbness of Fingers and Toes

<table>
<thead>
<tr>
<th>Anatomic/Physiologic Basis</th>
<th>Prevention and Relief Measures</th>
<th>Alert signs—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift in center of gravity—pressure on sciatic nerve</td>
<td>Reinforce importance of good body mechanics</td>
<td></td>
</tr>
<tr>
<td>Compression of nerve by edematous tissue</td>
<td>When numbness is bothersome—try lying down, soaking in warm tub</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Numbness and pain in fingers—carpel tunnel syndrome</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weakness of hand or leg—disk prolapse</td>
<td></td>
</tr>
</tbody>
</table>
### Slide 40

**Example: Walking Awkwardly (Waddling)**

<table>
<thead>
<tr>
<th>Anatomical/physiologic basis</th>
<th>Prevention and relief measures—reassurance and:</th>
<th>Potential—may indicate problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Shift in center of gravity—pressure on sciatic nerve</td>
<td>• Reinforce good body mechanics</td>
<td>• Numbness and pain in fingers—carpel tunnel syndrome</td>
</tr>
<tr>
<td>• Compression of nerve by edematous tissue</td>
<td>• When numbness is bothersome—try lying down, soaking in warm tub</td>
<td>• Weakness of hand or foot—disc prolapse</td>
</tr>
</tbody>
</table>

---

### Slide 41

**Summary**

- Many women experience a variety of common discomforts during pregnancy
- The skilled provider should:
  - Reassure the woman
  - Explain the basis for her discomfort
  - Counsel the woman on prevention/relief measures
  - Advise her to return if condition worsens or danger or alert signs develop
PRESENTATION 4A
ADDITIONAL CARE II: SPECIAL NEEDS OF PREGNANCY

Slide 1

Addisonal Care II
Special Needs of Pregnancy

Slide 2

Session Objective
• By end of session, participants will be able to:
  • Explain some key special needs
  • Describe additional care for women who have these special needs

Slide 3

Overview
• Special needs are conditions or social/personal factors that should be taken into consideration when planning and implementing care
Overview (cont.)

Women with special needs require care in addition to core components of basic care. This may consist of:
- Additional assessment
- Additional care provision

During assessment:
- Focus on certain elements of assessment and/or add new elements (e.g., tests)
- Confirm and/or assess nature of need (e.g., severity, related factors)
- Confirm that woman does not have more serious condition/problem

During care provision:
- Explain benefits of addressing need
- Emphasize certain elements of care plan and/or add new elements (e.g., drugs, messages)
- Make special recommendations regarding birth and complication readiness plan, if needed
Slide 7

Overview (cont.)

During care provision (cont.):
- Schedule additional ANC visits, if needed
- Link woman to appropriate local sources of support or specialists, as appropriate—maintain up-to-date list of local resources
- Advise to return for care if symptoms worsen or danger or alert signs arise

Slide 8

Presenting Special Needs

- Adolescence (19 years of age and under)
- Anemia (mild to moderate)
- Burning on urination
- Female genital cutting
- HIV

Slide 9

Presenting Special Needs (cont.)

- Living in area of endemic:
  - Hookworm infection
  - Malaria infection
  - Vitamin A deficiency
  - Iodine deficiency
  - Living in area with high prevalence of diabetes
Slide 10

**Presenting Special Needs (cont.)**

- Poor obstetric history
- Size-date discrepancy
  - Through 22 weeks' gestation
  - After 22 weeks' gestation
- Syphilis
- Violence against women

Slide 11

**Adolescence (19 years and under)**

- Care for adolescent woman focuses on identifying and addressing:
  - Associated health risks
  - Lack of information/experience
  - Lack of support
  - Other barriers to care

Slide 12

**Adolescence: Additional Assessment**

- Determine circumstances surrounding pregnancy
  - Unprotected sex
  - Multiple partners
  - Incest, sexual abuse, rape
  - Sexual exploitation
  - Forced marriage, forced sex
- **If due to abuse**, further evaluation/additional care needed (special need)
Adolescence: Additional Assessment (cont.)

- May need to confirm pregnancy through pelvic exam or testing—she may not know she is pregnant; may happen before period starts

Note: If woman’s first pelvic exam:
- Obtaining consent
- Respecting modesty/privacy
- Explaining what to expect
- Listening to concerns may be especially important

Adolescence: Additional Care Provision

- Identification of personal support system
- Nutritional support
  - Involve family decision-makers to ensure:
    - Access to food
    - Avoidance of heavy physical labor
    - Adequate rest
  - Counsel her to:
    - Eat frequent meals with extra serving and snacks
    - Avoid skipping meals

Adolescence: Additional Care Provision (cont.)

- Birth and complication readiness plan
  - Involve family decision-makers (with her consent)
- Self care and other healthy practices
  - Encourage continuation of education
  - Encourage companion during ANC visits
  - Reinforce safer sex message
Adolescence: Additional Care Provision (cont.)

- Reinforce importance of:
  - Family planning/birth spacing
  - Successful breastfeeding
  - Newborn care
  - Linkage to appropriate local sources of support
    - Woman’s advocacy group
    - Public health agencies
    - Peer support groups
    - Community service organization

Anemia

Care for woman with mild to moderate anemia focuses on preventing severe anemia

- During pregnancy and breastfeeding—body requires more iron than usual
- Severe anemia during pregnancy—associated with premature birth, increased perinatal and maternal mortality, infection

Anemia: Additional Assessment

In addition to basic assessment

- Recognize s/s of anemia:
  - Symptoms: Weakness, tiredness, shortness of breath, dizziness, fainting
  - Signs: Pallor of conjunctiva, hemoglobin levels below 11 g/dL
  - If hemoglobin levels less than 7 g/dL, woman has severe anemia and requires urgent referral/transfer
Slide 19

Anemia: Additional Assessment (cont.)

Try to determine cause of anemia:

- Postpartum hemorrhage in last 2–3 years
- Living in area of endemic malaria or hookworm infection
- HIV
- Any of above: Further evaluation/additional care (special need)
- Unknown—nonurgent referral/transfer

Slide 20

Anemia: Additional Care Provision

- Reinforce importance of:
  - Eating iron-rich foods with vitamin C
  - Not eating iron-rich foods with foods that inhibit iron absorption—e.g., tea, coffee, bran
  - Taking iron/folate as prescribed and managing any side effects
  - Retest woman’s hemoglobin levels in one month—to ensure good response to iron therapy

Slide 21

Burning on Urination: Additional Assessment

- Perform culture and sensitivity on clean-catch specimen, if available
- Assess for fever and flank/loin pain
- If either, provide urgent additional assessment/care (possible life-threatening complication)
Slide 22

Burning on Urination: Additional Care Provision

- Begin treatment for cystitis while awaiting test result (change treatment, if needed, when result is ready):
  - Amoxicillin 1 tab (500 mg) 8 hourly X 3 days, or
  - Trimethoprim/sulphamethoxazole (160 mg/800 mg) 1 tab 12 hourly X 3 days
- Encourage increased intake of fluids
- Advise to return for care if symptoms worsen or danger or alert signs arise

Slide 23

Female Genital Cutting (FGC): Additional Assessment

Determine type of FGC that woman has:
- Clitoridectomy (Type I): part/all clitoris removed
- Excision (Type II): partial clitoris and prepuce removed; partial/total excision of labia minora
- Infibulation (Type III): clitoris and labia minora removed; incised sides of labia majora stitched together
- Unclassified procedure

Slide 24

FGC—Type I: Area Cut (Left) and Healed (Right)
FGC—Type 2: Area Cut (Left) and Healed (Right)

FGC—Type 3: Area Cut (Left) and Healed (Right)

FGC: Additional Assessment (cont.)

Determine whether scar is well healed or complicated by other factors

• If well-healed Type I or II, proceed to additional care provision
• If well-healed Type III, proceed to additional care provision, which must include defibulation
• If FGC scar complicated by other factors (large keloids, dermoid cysts, infected ulcers, cysts), woman requires nonurgent referral/transfer
FGC: Additional Care Provision

Well-healed Type I or II:
- Reassure woman—will not complicate childbirth

Well-healed Type III:
- Advise woman that defibulation is necessary for birth:
  - Ideally during 2nd trimester of pregnancy
  - Can be done during 2nd stage of labor—but increased chance of infection and bleeding

FGC: Additional Care Provision (cont.)

- Counseling—include partner/decision-maker:
  - Inform them that reinfibulation is unnecessary
  - Discuss medical risks of reinfibulation
  - Support woman in her decision

HIV

- Pregnant woman with HIV should receive same basic care provided to all women plus additional care
- While caring for HIV-positive woman, always:
  - Respect her confidentiality
  - Provide reassurance and encouragement
  - Be empathetic and nonjudgmental
Main Goals of ANC for HIV-Positive Women

- Maximize and maintain health of mother
- Prevent mother-to-child-transmission (MTCT) of HIV
- Prevent HIV transmission to uninfected partners
- Linkage to appropriate healthcare or supportive services

Effects of HIV

Possible effects of HIV on pregnant woman:
- Opportunistic infections
- Malnutrition and specific vitamin deficiencies—increased nutritional requirements
- Depression, anxiety
- Abandonment, abuse, stigma

HIV: Additional Assessment

- Ensure that she is under care of HIV specialist
- Determine whether receiving ARV therapy
- Assess support systems; risk of abandonment or abuse
Slide 34

HIV: Additional Assessment (cont.)

- Assess for coexistent conditions and opportunistic infections:
  - Respiratory infections
  - Tuberculosis
  - Persistent diarrhea
  - Urinary tract infection
  - Enlarged lymph nodes
  - Skin eruptions and lesions

Slide 35

HIV: Additional Assessment (cont.)

- Coexistent conditions and opportunistic infections (cont.):
  - Sexually transmitted infections
  - Oral or vaginal candidiasis
  - Severe weight loss
  - Pallor, fatigue, and other s/s of anemia
  - If coexistent conditions and opportunistic infections, woman requires nonurgent referral/transfer

Slide 36

HIV: Post-Test Counseling

- Start with post-test counseling, if needed:
  - Provide results, reassuring confidentiality
  - Provide immediate emotional support—for denial, anger, or sadness
  - Be alert for destructive reactions
  - Ensure support during next hours/days
Slide 37

HIV: Post-Test Counseling (cont.)

- Assess risk of abandonment and abuse—stability of relationship, partner’s likely reaction
- Discuss/role play disclosure (e.g., timing, approach, who should know)
- Assess risk of abandonment and abuse—stability of relationship, partner’s likely reaction
- Discuss disclosure (e.g., timing, approach)

Slide 38

HIV: Post-Test Counseling (cont.)

- Outline methods of preventing HIV transmission to fetus and partner
- Discuss importance of promptly initiating care with HIV specialist (nonurgent referral/transfer)
- Inform her of local HIV programs, support groups, and other resources (linkage)
- Proceed with additional care provision

Slide 39

HIV: Additional Care Provision

- Help identify personal support system
- Assist in planning for future
- Discuss newborn feeding options
- Discuss ARV treatment options
- Link to local HIV programs, support groups, and other resources (linkage)
Slide 40

**HIV: Support System**

Help woman identify friends, family, and other HIV-positive people who can:
- Provide emotional and practical support
- Help secure resources
- Help plan for future

Slide 41

**HIV: Plans for Future**

Assist in planning for long-term care needs
- Who will care for woman and children if she becomes ill?
- Is child at risk of neglect, abuse, abandonment?
- Does she have access to healthcare services and medications specifically for HIV-positive people?

Slide 42

**HIV: Newborn Feeding**

Counsel woman about feeding options: breastfeeding or replacement feeding (using breastmilk substitute)
- Discuss risks and benefits of each
- Support woman in her decision
HIV: Newborn Feeding (cont.)

Breastfeeding:
- Provides newborn with adequate nutrition and protection against infections and allergies
- Promotes bonding
- Provides woman with contraceptive protection
- Is usually more culturally appropriate, cost-effective, accessible

But:
- Increases risk of mother to child transmission (MTCT) of HIV

HIV: Newborn Feeding (cont.)

- If use of breastmilk substitute is feasible, acceptable, safe, affordable, available/accessible, avoidance of all breastfeeding is recommended for HIV-positive women—but it is still her decision to make
- If woman decides to use replacement feedings—counsel her on safe preparation and administration of breastmilk substitute

HIV: Newborn Feeding (cont.)

If woman decides to breastfeed—counsel on the following:
- Breastfeeding must be exclusive, not alternated with replacement feeds (mixed feeding carries higher risk of MTCT than exclusive breastfeeding or exclusive replacement feeding)
HIV: Newborn Feeding (cont.)

- Breastfeeding should be discontinued as early as possible, between 4 and 6 months after childbirth, to minimize risk of MTCT.
- Discontinuation should be abrupt, not gradual, and followed by exclusive replacement feeding.
- The woman should seek prompt medical attention for conditions such as mastitis, breast abscess, and fungal infection of nipples.

HIV: Health Messages and Counseling

Reinforce importance of:
- Reducing workload and increasing periods of rest.
- Consistent condom use during pregnancy and postpartum period.
- Good nutrition.
- Family planning.
- Attending all ANC visits.

HIV: Antiretroviral Therapy

- If woman is on ARV, advise her to continue therapy with HIV specialist.
- If woman is not on ARV, provide therapy according local guidelines.
  - If no local guidelines, use following guidelines.
For pregnant women, give zidovudine (ZDV, AZT, Retrovir):

- **Short course:**
  - 300 mg orally twice daily
  - from 36 weeks gestation to onset of labor (then 300 mg orally every 3 hours until birth)

- **Long course:**
  - 300 mg orally twice daily OR 200 mg orally 3 times daily
  - OR 100 mg orally 5 times daily
  - from 14 to 34 weeks gestation to onset of labor (then 2 mg/kg IV for first hour, then 1 mg/kg per hour until birth)
PRESENTATION 4B
ADDITIONAL CARE III: SPECIAL NEEDS OF PREGNANCY
(CONTINUED)

Slide 1

Additional Care III
Special Needs of Pregnancy (continued)

Slide 2

Living in Area of Endemic Disease/Deficiency

- Women living in endemic areas for following conditions require additional care
  - Malaria infection
  - Hookworm infection
  - Vitamin A deficiency
  - Iodine deficiency
  - Diabetes
- The goal of care is to prevent condition, or complications of condition, from developing

Slide 3

Malaria: Additional Assessment

- Assess for s/s of malaria illness (e.g., fever, headache, muscle/joint pain)
- If s/s of malaria illness, treat according to local protocols or facilitate referral/transfer
- If no s/s of malaria illness, provide additional care
Malaria: Additional Care Provision

ANC in malaria endemic area must include following interventions:
• Intermittent preventive treatment (IPT)
• Use of insecticide-treated (bed)nets (ITNs)
• Health messages and counseling
• Management of malaria illness—if s/s develop

Malaria: Additional Care Provision (cont.)
Give sulphadoxine (500 mg) and pyrimethamine (25 mg) according to local protocols or following guidelines:
• Give first dose at first ANC visit after fetal movement begins, and
• Give dose at next two ANC visits—but not more often than monthly
• Do not give IPT to women less than 16 weeks' pregnant or allergic to sulfa drugs

Malaria: Additional Care Provision (cont.)
Provide additional health messages and counseling:
• Malaria can cause problems including severe maternal anemia and stillbirth or low birth weight
• Other preventive measures:
  • Sleep under well-tucked net every night; have net re-dipped every 6 months
  • Avoid standing water, thick foliage, etc.; cover arms and legs; use repellent
  • Seek immediate care if s/s of malaria illness arise
Hookworm Infection: Additional Care Provision

Provide presumptive antihelmintic treatment to women in 2nd and 3rd trimester of pregnancy—if woman has not received treatment in last 6 months or tested positive for hookworm infection:

- Give mebendazole 500 mg by mouth once, OR
- Give albendazole 400 mg by mouth once, OR
- Prescribe mebendazole 100 mg by mouth twice daily for 3 days
- In regions with high prevalence of hookworm infection, provide additional dose after 12 weeks

Hookworm Infection: Additional Care Provision (cont.)

Provide additional health messages and counseling:

- Hookworm infection can cause maternal anemia and protein deficiency
- Other preventive measures
  - Avoid walking bare foot to prevent infection
  - Dispose of human waste properly
  - Do not touch soil with bare hands
  - Use good general hygiene practices

Vitamin A Deficiency: Additional Care Provision

- Provide supplementation:
  - 1st to 3rd trimester—10,000 IU vitamin A once daily orally
  - 2nd to 3rd trimester—25,000 IU vitamin A once weekly orally
- Provide related health messages and counseling:
  - Increase dietary intake of local foods rich in vitamin A
  - In HIV+ woman, vitamin A deficiency can increase risk of mother-to-child transmission
Iodine Deficiency: Additional Care Provision

Provide supplementation—as early as possible in pregnancy
- Give one-time dose of 2–3 capsules of iodine 400–600 mg orally, OR
- Inject one-time dose of 240 mg (0.5 mL Lipiodol) intramuscularly

Iodine Deficiency: Additional Care Provision

Provide related health messages and counseling:
- Most prevalent cause of preventable mental retardation globally; can also result in other forms of brain damage, stillbirth, spontaneous abortions, increased neonatal mortality
- Other preventive measures: increasing dietary intake of iodine; using iodized salt

Diabetes Additional Care Provision

- During ANC test woman’s urine for glucose:
  - If urine is positive for glucose, facilitate nonurgent referral
  - If urine is negative for glucose, repeat test early in 3rd trimester (around 28 weeks gestation)
Slide 13

Poor Obstetric History

- Maternal, fetal, or newborn complications during previous pregnancy, labor/childbirth, postpartum/newborn period may indicate underlying medical or obstetric condition
- Reason to be vigilant, but may require no special intervention
- Provides opportunity to:
  - reassure woman in present pregnancy
  - emphasize importance of having skilled provider attend birth

Slide 14

Poor Obstetric History: Additional Assessment

- Determine nature of previous complications
- Perform additional assessment and appropriate follow-up for following conditions:
  - Convulsions
  - Three or more spontaneous abortions
  - Cesarean section or other uterine surgery
  - Third- or fourth-degree tears
  - Newborn complications or death
  - For other previous complications, proceed with additional care provision

Slide 15

Previous Convulsions

Determine cause of convulsion based on history or medical records:

- Malaria—reinforce importance of IPT and bednets; be alert for s/s
- Eclampsia—reinforce regular ANC check up for blood pressure; be alert for s/s
- Tetanus—reinforce tetanus toxoid immunization
- Epilepsy or unknown cause—facilitate nonurgent referral/transfer
Three or More Spontaneous Abortions
Determine when abortions occurred based on history or medical records:
• If all were before 14 weeks—be alert for vaginal bleeding and severe abdominal pain
• If all were after 14 weeks—facilitate nonurgent referral/transfer

Previous C-Section or Uterine Surgery
Determine reason for surgery based on history or medical records:
• Ectopic pregnancy
• Ruptured uterus
• C-section due to:
  • Cephalopelvic disproportion
  • Complications requiring immediate delivery
  • Twin or breech delivery
  • Fetal distress

Previous C-Section or Uterine Surgery (cont.)
Use information to guide development of birth plan:
• Arrange to give birth in facility equipped to perform emergency obstetric surgery
• With one previous C-section—may have “trial of labor” if judged safe by skilled provider
• With two previous C-sections or uterine rupture—must give birth by C-section
• Secure appropriate funds and transportation for surgical intervention
Slide 19

Previous 3rd or 4th Degree Tear

Determine whether repair is adequate and assess for related complications (e.g., fistula, rectal sphincter dysfunction):
- If repair adequate and no complications—reassure woman and proceed with additional care
- If repair inadequate or complications—facilitate urgent referral/transfer

Slide 20

Previous Newborn Complications or Death

Determine nature of newborn complication or death based on history or medical records:
- Complications during labor/birth (e.g., C-section, maternal convulsions)—provide further evaluation/additional care as appropriate
- Newborn jaundice, feeding difficulties, other problems
  - for jaundice, plan to closely observe baby for first 5 days
  - for others, use information to guide counseling and other care

Slide 21

Previous Newborn Complications or Death (cont.)

Determine nature of newborn complication or death based on history or medical records (cont.):
- Maternal chronic conditions, lifestyle (e.g., use of harmful substances), other problems
  - for chronic conditions, facilitate nonurgent referral/transfer
  - for others, use information to guide counseling and other care
Poor Obstetric History: Additional Care Provision

- Listen to woman's story and provide reassurance
- Emphasize importance of:
  - Birth and complication readiness plan
  - Skilled provider to attend birth
  - Adhering to plan of care
  - Practicing self-care and other healthy practices
  - Returning for continued care throughout childbearing cycle

Size-Date Discrepancy: Through 22 Weeks Gestation

Additional assessment:
- Confirm measurement with second skilled provider
- Confirm pregnancy, if needed
- Confirm gestational age based on menstrual and contraceptive history, signs of pregnancy, physical examination
  - If error in calculation of dates—correct estimated date of childbirth and proceed with additional care
  - If no error in calculation of dates—rule out ectopic pregnancy, spontaneous abortion, molar pregnancy

Size-Date Discrepancy: After 22 Weeks Gestation

Additional assessment:
- Confirm measurement with second skilled provider
- If small for dates—rule out malpresentation (if transverse lie), fetal death
- If large for dates—rule out multiple pregnancy, polyhydramnios
Slide 25

Size-Date Discrepancy: Through and After 22 Weeks Gestation

Additional care provision:
- Provide reassurance
- If pregnancy progressing normally, ask woman to return in 2 weeks and re-measure
  - If still more than 2 cm difference, facilitate nonurgent referral/transfer

Slide 26

Syphilis

Additional assessment:
- Check for signs of infection
- Perform RPR/VDR if needed
- If diagnosed, determine whether treated and whether treatment was adequate

Slide 27

Syphilis

- Additional care provision:
  - Give emotional support
  - Provide counseling regarding:
    - Mode of transmission
    - Possible effects on, and care of, baby
    - Importance of condom use
    - Importance of testing partners
Slide 28

**Syphilis (cont.)**

- If diagnosed with syphilis but not adequately treated:
  - If newly acquired s/s, give benzathine benzylpenicillin 2.4 million units IM
  - If s/s of unknown duration, give benzathine benzylpenicillin 2.4 million units IM weekly for 3 weeks
  - Follow local protocols for follow-up management of woman with positive RPR/VDRL

Slide 29

**Violence against Women**

- Freedom from violence is basic human right
- Pregnancy may be precipitating factor of violence—“punishment” for becoming pregnant
- Violence may be at hands of her partner or family members
- The woman may deny abuse even if it is occurring—make point to talk to her alone; give her time; let her know “door is open”

Slide 30

**Main Goals of ANC for Women Suffering Violence**

- Identify abuse-related condition or injury
- Help woman recognize abuse in her own life and take steps to protect herself and her children
- Ensure that she feels safe while receiving care
- Help her recognize her right to high-quality ANC services
- Linkage to appropriate healthcare or supportive services
Effects of Violence

Possible effects of violence on pregnant woman:
- Injury or death
- Emotional trauma
- Exposure to STIs
- Powerlessness
- Isolation
- Lack of support system

Additional/Emphasized Interpersonal Skills for Women Suffering Violence

- Demonstrate empathy and understanding
- Use kind, nonjudgmental approach
- Ensure complete confidentiality and privacy
- Respect her right to make decisions about her life
- Be aware of increased sensitivity to or fear of examination

Violence against Women: Additional Assessment

- Recognize s/s of violence, including:
  - History of abuse
  - History of depression/suicide attempts
  - Wounds, bruises, lesions on abdomen, chest, or genitals
- Determine nature of abuse:
  - What has been done to her? For how long? Has it gotten worse? How is it currently affecting her life?
Violence against Women: Additional Care Provision

If pregnancy is progressing normally—provide basic ANC with following additions/emphases:
• Health messages and counseling
• Safety action plan
• Linkage to appropriate local sources of support

Violence against Women: Health Message and Counseling

• Validate her experience
• Acknowledge injustice—it is not her fault
• Help her understand that she is not alone—other women also have this problem
• Empower her by sharing information

Violence against Women: Safety Action Plan

Help woman develop safety action plan:
• Identify neighbors, friends, or relatives who are willing to help
• Talk about abuse to trusted neighbor who can act in an emergency
• Keep local support contact information accessible
• Be prepared to leave home quickly: packed bag accessible, escape route planned
Violence against Women: Linkage to Sources of Support

Help woman identify local sources of support either within her family or community, including:

- Woman’s service and advocacy groups
- Public health agencies
- Peer support groups
- Community service organizations
- Religious leaders, churches, faith-based organizations
- Appropriate legal agencies

Summary

- Be alert to special needs during pregnancy that require care in addition to basic care
- May need to include:
  - Special counseling and care
  - Scheduling additional visits
  - Advising other providers involved in her care
  - Linking woman to appropriate resources
PRESENTATION 5
ADDITIONAL CARE IV: LIFE-THREATENING COMPLICATIONS OF PREGNANCY

Slide 1

Additional Care IV
Life-Threatening Complications of Pregnancy

Slide 2

Session Objective
• By end of session, participants will be able to identify and respond to life-threatening complications encountered while caring for pregnant women

Slide 3

Overview
• A danger sign indicates a potentially life-threatening complication
• Women presenting with danger signs—during quick check OR in course of basic ANC—require care in addition to core components of basic care. This consists of:
  • Rapid initial assessment and, if necessary, stabilization
  • Additional assessment
  • Additional care provision
Overview (cont.)

- **Rapid initial assessment** determines:
  - Degree of illness
  - Need for emergency care/stabilization
  - Appropriate course of action to be taken
- If stabilization is not needed—provide additional care per presenting danger sign
- If stabilization is needed—follow appropriate stabilization procedure

---

Overview (cont.)

**Additional assessment** per presenting danger sign (after RIA/stabilization):

- Focus on certain elements of assessment and/or add new elements (e.g., tests)
- Confirm and/or assess nature of need (e.g., severity, related factors)
- Confirm that woman does not have more serious condition/problem requiring urgent referral/transfer

---

Overview (cont.)

**Additional care provision** per presenting danger sign (after RIA/stabilization and more serious conditions have been ruled out)

- Emphasize certain elements of care plan and/or add new elements (e.g., drugs, health messages)
- Make special recommendations regarding birth and complication readiness plan, if needed
- If appropriate, provide initial management of condition and/or facilitate referral/transport
Rapid Initial Assessment (RIA)

- Every woman presenting with a danger is assessed for:
  - Breathing difficulty (respiratory distress)
  - Convulsion/loss of consciousness
  - Shock
  - Hypertension with proteinuria
  - Fever

RIA: Breathing Difficulty

- Assess for s/s of breathing difficulty:
  - Not breathing
  - Rapid breathing (30 breaths/minute or more)
  - Obstructed breathing or gasping
  - Wheezing or rales
  - Pallor or cyanosis

  If any above s/s present—follow stabilization procedure per next two slides before proceeding

  If not, proceed with rapid initial assessment

Stabilization: Respiratory Distress

- If woman is not breathing:
  - Keep her in supine position with head tilted backwards
  - Lift chin to open airway
  - Inspect mouth for foreign body and remove if found
  - Clear secretions from throat
  - Ventilate with bag and mask until breathing

  Once stabilized—facilitate urgent referral/transfer
Stabilization: Respiratory Distress (cont.)

- If woman is breathing:
  - Rapidly evaluate her vital signs (pulse, blood pressure, breathing)
  - Prop on left side
  - Give oxygen at 6–8 liters/minute
  - Continually ensure that airway is clear
- Once stabilized—facilitate urgent referral/transfer

RIA: Convulsions or Loss of Consciousness

- Assess for convulsions or loss of consciousness
  - If either is present—follow stabilization procedure per next four slides before proceeding
  - If not, proceed with rapid initial assessment

Stabilization: Convulsions, Loss of Consciousness, or Diastolic BP More than 110 mmHg with Proteinuria 2+ or More

- Rapidly evaluate woman’s vital signs (pulse, blood pressure, breathing)
- Never leave her alone
- Protect her from injury, but do not actively restrain
- If unconscious:
  - Check airway
  - Prop on left side
  - Check for neck rigidity
  - If rigid neck, use appropriate precautions for possible meningitis
Stabilization: Convulsions, Loss of Consciousness, or Diastolic BP More than 110 mmHg with Proteinuria 2+ or More (cont.)

- If convulsing—turn her on side to minimize risk of aspiration
- Give loading dose of magnesium sulfate solution (or diazepam, if not available)
  - Give 4 g IV over 5 minutes
  - Follow promptly with 10 g: 5 g in each buttock as deep IM injection with 1 mL of 2% lidocaine in same syringe

*See precautions on next slide

Stabilization: Convulsions, Loss of Consciousness, or Diastolic BP More than 110 mmHg with Proteinuria 2+ or More (cont.)

- If convulsions persist or recur after 15 minutes, give magnesium sulfate solution 2 g IV over 5 minutes*
- Once stabilized—facilitate urgent referral/transfer
  - If referral/transfer is delayed—continue according to maintenance dose schedule*

*See precautions on next slide

Stabilization: Convulsions, Loss of Consciousness, or Diastolic BP More than 110 mmHg with Proteinuria 2+ or More (cont.)

- Before giving another dose of magnesium sulfate solution, ensure that woman’s:
  - Respiratory rate is at least 16 breaths/minute
  - Patellar reflexes are present
  - Urinary output is at least 30 mL/hour over 4 hours
- If respiratory arrest occurs:
  - Assist ventilation with mask and bag
  - Give calcium gluconate 1 gm (10 mL of 10% solution) IV slowly over 10 minutes
Slide 16

RIA: Shock
- Measure woman’s blood pressure and take her temperature and pulse
- If systolic less than 90 mmHg, assess for other s/s of shock:
  - Pallor of conjunctiva
  - Perspiration
  - Cool and clammy skin
  - Rapid breathing
  - Anxiety or confusion
  - Unconscious or nearly unconscious
  - Scanty urine

Slide 17

RIA: Shock (cont.)
- If any above s/s present—follow stabilization procedure per next two slides before proceeding
- If not, proceed with rapid initial assessment

Slide 18

Stabilization: Shock
- Turn her on side to minimize risk of aspiration
- Ensure that she is breathing
- Keep woman warm, but do not overheat
- Elevate her legs to increase venous return (before and during transport)
- Start IV infusion or give oral rehydration solution (if woman is able to drink)
Slide 19
Stabilization: Shock (cont.)
- Monitor vital signs (pulse, blood pressure, breathing) and skin temperature every 15 minutes
- Once woman is stabilized—facilitate urgent referral/transport

Slide 20
RIAI: Diastolic BP More than 110 mmHg with Proteinuria 2+ or More
- If diastolic more than 110 mmHg, test urine for protein
  - If protein 2+ or more, follow same stabilization procedure as for convulsions or loss of consciousness before proceeding
  - If not, proceed to additional care guidelines per presenting danger sign

Slide 21
Additional Assessment and Care per Presenting Danger Sign
If woman is not in need of stabilization or has been stabilized, follow specific guidelines for danger sign:
- Vaginal bleeding in early/later pregnancy (through/after 22 weeks)
- Severe headache, blurred vision, or elevated blood pressure
- Decreased or absent fetal movements, absent fetal heart tones, abnormal fetal heart rate
Additional Assessment and Care per Presenting Danger Sign (cont.)
- Fever or foul-smelling vaginal discharge
- Severe abdominal pain in early/later pregnancy (through/after 22 weeks)
- Contractions before 37 weeks’ gestation

Vaginal Bleeding in Early Pregnancy (through 22 weeks)
Assess for following alert s/s:
- Fainting
- History of expulsion of tissue
- Cramping/lower abdominal pain
- Tender uterus
- Tender adnexal mass
- Cervical motion tenderness
- Uterus soft and large for dates

Vaginal Bleeding in Early Pregnancy (through 22 weeks) (cont.)
- If any of above s/s—facilitate urgent referral/transfer
  - If bleeding is heavy and referral/transfer is delayed—give 0.2 mg ergometrine IM or misoprostol 400 mcg by mouth
- If none of above s/s—proceed with additional care provision
Slide 25

**Vaginal Bleeding in Early Pregnancy (through 22 weeks) (cont.)**

Additional care:
- Provide reassurance
- Explain that she may be aborting
- Ensure sufficient supply of iron/folate
- Review complication readiness plan
- Ensure that she knows where to go for help if danger or alert signs arise

Slide 26

**Vaginal Bleeding in Late Pregnancy (after 22 weeks)**

NEVER perform a pelvic examination on a woman who is more than 22 weeks gestation and who is bleeding

Slide 27

**Vaginal Bleeding in Late Pregnancy (after 22 weeks) (cont.)**

Assess for following alert s/s:
- Moderate/heavy bleeding
- Tender or tense uterus/abdomen
- Severe abdominal pain
- Intermittent or constant abdominal pain
- Easily palpable fetal parts
- Decreased or absent fetal movements
- Abnormal or absent fetal heart tones
Slide 28

Vaginal Bleeding in Late Pregnancy (after 22 weeks) (cont.)

- If any of above s/s:
  - Start IV infusion (or give ORS if conscious)
  - Facilitate urgent referral/transfer
  - If none of above s/s—proceed with additional care provision

Slide 29

Vaginal Bleeding in Late Pregnancy (after 22 weeks) (cont.)

- Assess for labor:
  - If woman is not in labor—facilitate urgent referral/transfer
  - If woman is in labor:
    - If less than 37 weeks—facilitate urgent referral/transfer
    - If more than 37 weeks—proceed with basic care for labor and childbirth

Slide 30

Severe Headache, Blurred Vision, or Elevated Blood Pressure

Assess for following alert s/s:
- Diastolic BP more than 90 mmHg with proteinuria
- Difficulty chewing and opening mouth
- Fever/chills/shivers
- Stiff neck
- Muscle and joint pain
- Spasms of face, neck, trunk
- Arched back
- Board-like abdomen
Slide 31

Severe Headache, Blurred Vision, or Elevated Blood Pressure (cont.)

- If any of above s/s—facilitate urgent referral/transfer
- If none of above s/s—proceed with additional care provision

Slide 32

Severe Headache, Blurred Vision, or Elevated Blood Pressure (cont.)

- If diastolic BP is 90–110 mmHg with no proteinuria—recheck her BP in 1 hour
  - If diastolic BP is still 90 mmHg or more after 1 hour—facilitate urgent referral/transfer

Slide 33

Severe Headache, Blurred Vision, or Elevated Blood Pressure (cont.)

- If BP is normal:
  - Provide reassurance—headache may be normal (common discomfort)
  - Review complication readiness plan
  - Ensure that she knows where to go for help if symptoms worsen or danger or alert signs arise
Decreased or Absent Fetal Movements, Absent Fetal Heart Tones, Abnormal Fetal Heart Rate

For decreased or absent fetal movements:
• Palpate abdomen
• Ask if woman has had sedative drug
  • If yes—wait until effect of drug has worn off and palpate again; listen to fetal heart tones
  • If woman has not had drugs, listen to fetal heart tones/rate

Decreased or Absent Fetal Movements, Absent Fetal Heart Tones, Abnormal Fetal Heart Rate (cont.)
• If absent fetal heart tones—follow guidelines on next two slides
• If fetal heart tones are heard, but are abnormal—follow guidelines for abnormal fetal heart tones
• If fetal heart tones are heard and rate is normal—provide reassurance and proceed with basic ANC

For absent fetal heart tones:
• Ask others to listen
• Use electronic fetal stethoscope
• Obtain obstetric ultrasound, if available
  • If not heard on obstetric ultrasound, manage as stillbirth or newborn death (special need)
Decreased or Absent Fetal Movements, Absent Fetal Heart Tones, Abnormal Fetal Heart Rate (cont.)

- If not heard using other methods—recheck in 1 hour
- If heard and rate is abnormal—follow specific guidelines for danger sign
- If heard and rate is normal—provide reassurance and proceed with basic ANC
- If not heard—manage as possible stillbirth or newborn death (special need); facilitate nonurgent referral/transport

Decreased or Absent Fetal Movements, Absent Fetal Heart Tones, Abnormal Fetal Heart Rate (cont.)

For abnormal fetal heart rate:

- Try to identify maternal cause
  - If maternal cause not identified, facilitate urgent referral transfer
  - If maternal cause identified:
    - Initiate appropriate management
    - Provide reassurance and proceed with basic ANC, as appropriate

Fever (38°C or more)

Fever is never normal!

Assess for s/s of following:

- Amnionitis
- Acute pyelonephritis
- Septic abortion
- Malaria
- Pneumonia
- Typhoid
Slide 40

Fever (38°C or more) or Foul-Smelling Vaginal Discharge

- Start IV or give ORS
- Provide antibiotics appropriate to condition suggested by s/s
- Provide supportive care: use of fan or tepid sponge before and during transport
- Facilitate urgent referral/transport

Slide 41

Severe Abdominal Pain in Early Pregnancy (through 22 weeks)

Assess for alert s/s:
- Vaginal bleeding
- Nausea/vomiting
- Loss of appetite
- Fever/chills
- Rebound tenderness
- Size-date discrepancy
- Tender adnexal mass
- Cervical motion tenderness
- Burning on urination
- Increase in urinary frequency/urgency

Slide 42

Severe Abdominal Pain in Early Pregnancy (through 22 weeks) (cont.)

- If any of above s/s, facilitate urgent referral/transfer
- If none of above s/s, proceed with additional care provision
Slide 43

Severe Abdominal Pain in Early Pregnancy (through 22 weeks): Additional Care

- Provide reassurance—abdominal pain may be normal (common discomfort)
- Review complication readiness plan
- Ensure that she knows where to go for help if danger or alert signs arise

Slide 44

Severe Abdominal Pain in Later Pregnancy (after 22 weeks)

Assess for alert s/s:
- Palpable contractions or cervical dilation before 37 weeks
- Blood-stained mucous/watery vaginal discharge before 37 weeks
- Foul-smelling, watery vaginal discharge
- Vaginal bleeding
- Nausea/vomiting
- Loss of appetite
- Fever/chills
- Rebound tenderness
- Tender uterus
- Easily palpable fetal parts
- Decreased or absent fetal movement
- Abnormal or absent fetal heart tones/rate
- Burning on urination
- Increase in urinary frequency/urgency

Slide 45

Severe Abdominal Pain in Later Pregnancy (after 22 weeks) (cont.)

- If any of above s/s:
  - Start IV infusion
  - Facilitate urgent referral/transfer
- If none of above s/s—proceed with additional care provision
Slide 46

Severe Abdominal Pain in Later Pregnancy (after 22 weeks) (cont.)

- Assess for labor
  - If woman is in labor:
    - If less than 37 weeks—facilitate urgent referral/transfer
    - If more than 37 weeks—provide basic care for labor and childbirth
  - If woman is not in labor—proceed with additional care provision

---

Slide 47

Severe Abdominal Pain in Later Pregnancy (after 22 weeks) (cont.)

Additional care:

- Provide reassurance—abdominal pain may be normal (common discomfort)
- Assess for constipation (common discomfort)
- Review complication readiness plan
- Ensure that she knows where to go for help if danger or alert signs arise

---

Slide 48

Contractions Before 37 Weeks

- Assess for alert s/s:
  - Cervical dilatation and effacement
  - Palpable contractions
  - Blood-stained mucus or watery discharge
  - Vaginal bleeding
  - If any of above s/s—facilitate urgent referral/transfer
  - If none of above s/s—proceed with additional care provision
Contraction Before 37 Weeks (cont.)

- Assess for false labor
- If false labor:
  - Manage as false labor (special need)
  - Conduct urine test and rule out urinary tract infection
- Review complication readiness plan
- Ensure that she knows where to go for help if danger or alert signs arise

Summary

- Women presenting with danger signs—during quick check OR in course of basic ANC—require care in addition to core components of basic care. This consists of:
  - Rapid initial assessment and, if necessary, stabilization
  - Additional assessment
  - Additional care provision
  - Possible referral/transfer
BASIC ANTENATAL CARE COURSE EVALUATION  
(To be completed by Participants)

Please indicate your opinion of the course components using the following rating scale:

5-Strongly Agree  4-Agree  3-No Opinion  2-Disagree  1-Strongly Disagree

<table>
<thead>
<tr>
<th>COURSE COMPONENT</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Precourse Questionnaire helped me to study more effectively during the course.</td>
<td></td>
</tr>
<tr>
<td>2. The illustrated lectures and discussions helped me to understand the course content.</td>
<td></td>
</tr>
<tr>
<td>3. The role play on interpersonal skills was helpful.</td>
<td></td>
</tr>
<tr>
<td>4. The exercise on calculating the EDC was helpful.</td>
<td></td>
</tr>
<tr>
<td>5. The case studies were useful for practicing clinical decision-making.</td>
<td></td>
</tr>
<tr>
<td>6. The skills practice sessions made it easier for me to perform the skills for antenatal assessment and care provision.</td>
<td></td>
</tr>
<tr>
<td>7. The emergency drill helped me understand the different roles of emergency team members and how to respond rapidly in an emergency situation.</td>
<td></td>
</tr>
<tr>
<td>8. There was sufficient time scheduled for practicing with clients at an antenatal clinic.</td>
<td></td>
</tr>
<tr>
<td>9. I feel confident about providing basic antenatal care.</td>
<td></td>
</tr>
<tr>
<td>10. I feel confident about using/applying the recommended infection prevention practices and interpersonal skills.</td>
<td></td>
</tr>
<tr>
<td>11. The interactive learning approach used in this course made it easier for me to learn how to provide basic antenatal care.</td>
<td></td>
</tr>
<tr>
<td>12. Six days was an adequate length of time for the course.</td>
<td></td>
</tr>
</tbody>
</table>