Prepared for the Ministry of Public Health (MoPH) of Islamic Republic of Afghanistan, as the national refresher training course in basic essential obstetric and newborn care (EmONC), for use by all those organizations implementing a basic Emergency Obstetric and Newborn Care refresher training course.

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Printed in Afghanistan

March 2010
FOREWORD:

Dear Readers,

Women’s and children’s health is one of the top priorities of the Ministry of Public Health (MoPH) in Afghanistan. As reflected in the National Reproductive Health Strategy for 2010–2015, the MoPH will increase access to and utilization of emergency obstetric and neonatal care (EmONC) through high-quality training and performance improvement initiatives and retention strategies. The provision of basic Emergency Obstetric and Neonatal Care (BEmONC & CEmONC) is a globally recognized approach for improving safe motherhood and reducing maternal mortality.

With a maternal mortality ratio, there is an urgent need to improve the quality and availability of BEmONC and CEmONC services to women in Afghanistan.

These updated Learning Resource Packages (LRPs) provide updates needed to teach service providers the most current evidence-based care and best practices in BEmONC and CEmONC. These packages will enable clinicians to improve their communication with women, make appropriate clinical decisions, and develop competency in managing the most common complications of pregnancy and childbirth.

Increasing the capacity of health care providers through training must be complemented by a fully functioning health system and efforts to ensure that providers are working within enabling environments and a system of supportive supervision. The MoPH jointly with its partners will ensure that all skilled providers involved in basic and comprehensive EmONC have the opportunity to receive these trainings and improve the quality of the training centers.

The MoPH Government of Afghanistan acknowledges and appreciates the efforts of Reproductive Health Leadership and the organizations that supported the Reproductive Health Department, through the BEmONC and CEmONC working group of the Reproductive Health Taskforce, to update the BEmONC and CEmONC LRP. Technical and financial support was provided by UNICEF. JICA has kindly supported the Pashto language translation and printing of the LRP for the field level implementation. Professional staff from Jhpiego, Afghan Midwives Association (AMA) and the Afghan Society of Obstetrics and Gynecology (AFSOG) worked very hard to prepare these LRP and are gratefully acknowledged.

The MoPH recognizes these LRPs as official training materials for the BEmONC and CEmONC courses and requires all health organizations conducting BEmONC and CEmONC courses to use this LRP in their trainings.

Regards,

Dr. Surya Dalil
Acting Minister of Public Health
Kabul, Afghanistan
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INTRODUCTION

Maternal and newborn morbidity and mortality in Afghanistan remains at an unacceptably tragic level. The country’s health indicators are appalling, including the second highest maternal mortality ratio (MMR) in the world estimated at 1,600 per 100,000 live births.\(^1\) Not surprisingly, the risk of death due to maternal causes increases among women living in remote regions. Bartlett (2005) reported 6,500 maternal deaths per 100,000 live births—the highest MMR ever reported—in the remote province of Badakshan. One Afghan woman dies every 30 minutes from pregnancy-related causes, mainly hemorrhage, obstructed labor or sepsis and 78% of such deaths are avoidable. The neonatal mortality ratio in Afghanistan is also among the world’s highest, at an estimated 60 per 1000 live births.\(^2\) Most Afghan women deliver at home, and in 2003, less than 10% of births were attended by a skilled provider.\(^3\) Low rates of family planning (FP) use contribute to both maternal and newborn mortality and the contraceptive prevalence rate was 15.4.\(^4\)

Human resource shortages also constitute a major challenge for improving health outcomes. In Afghanistan, where these shortages are particularly acute, partners have been working with the Ministry of Public Health (MOPH) on a five-year initiative to increase the number of midwives and other skilled professionals. This increase in midwives trained (over 2,000 to date) has led to increasing numbers of attended deliveries reported at 18.9% in 2006.

International experts agree that the optimal strategy to reduce maternal and neonatal mortality is to ensure that all births are attended by skilled attendants and that all women with complications have access to emergency obstetric care (EmOC).\(^5\) It is recognized that availability of skilled care—the combination of an accredited health professional with midwifery skills working in a well-equipped environment—is an important intervention necessary to promote safe pregnancy and birth for women and their newborns.

High-quality maternal and newborn care requires that each woman and newborn receives evidence-based care during normal (uncomplicated) pregnancy, labor and birth, and the postpartum periods. Care of the “normal” as well as early detection and management of complications with an effective referral system, are essential to reduce maternal and newborn mortality. The essential services that a midwife\(^6\) or other skilled birth attendant (SBA) should be capable to provide to the mother or newborn with problems include basic emergency obstetric and newborn care (BEmONC) as listed in text box 1.

---


\(^4\) Afghan Health Survey 2006.


\(^6\) International Confederation of Midwives Core Competencies for Midwifery Education and Practice.
Text Box 1: BEmONC Services

Services defined by Basic Emergency Obstetric and Newborn Care (BEmONC):
- Administer parenteral antibiotics
- Administer parenteral uterotonics
- Administer parenteral anticonvulsants for pre-eclampsia and eclampsia
- Manually removal of the placenta
- Remove retained products of conception (e.g., manual vacuum aspiration; dilatation and curettage)
- Perform assisted vaginal delivery (e.g., vacuum extraction; forceps delivery)
- Perform basic neonatal resuscitation (e.g., with bag and mask)

These BEmONC services are a vital component of essential maternal and newborn care as outlined in the MAMAN framework (Figure 1) for community- and facility-based provision of essential maternal and newborn care.

Figure 1: MAMAN, Minimum Activities for Mothers and Newborns

Minimum Activities for Mothers and Newborns (MAMAN)

Essential Maternal and Newborn Care

Minimum activities in the FACILITY

- ANC
  - Birth preparedness
  - Tetanus toxoid
- Safe Birth with Skilled Attendance
  - Partograph
  - Infection prevention
  - Active mgt of 3rd stage of labor
  - Newborn resuscitation
- Postpartum
  - Cord care
  - Thermal care
  - Immediate & excl breastfeeding
  - Infection treatment

Minimum activities in the COMMUNITY

- ANC
  - Birth preparedness
  - Tetanus toxoid
- Safe Birth
  - Clean delivery
  - Referral link for obstetric & newborn complications
- Postpartum
  - Cord care
  - Thermal care
  - Immediate & excl breastfeeding
  - Infection recognition & referral or treatment

Other Essential Interventions

- Immunization
- Iron and folate
- Family planning

Context-Specific Interventions

- Intermittent presumptive treatment for malaria
- Lactation
- Syphilis detection and treatment
- Prevention of mother-to-child transmission of HIV

The midwife is often the care provider who is most accessible to pregnant and birthing woman and their newborns. And, the midwife is often the leader whom the healthcare community looks to for expertise in care of the woman and her newborn. As an SBA, his/her presence at a birth, during
pregnancy or postpartum is associated with a reduction in maternal and newborn mortality. Other providers of BEmONC include doctors and nurses with midwifery skills.7

Purpose and Use of this Learning Resource Package

For years, much of basic and emergency obstetric and newborn care was provided according to “tradition” and “routine” practice rather than according to evidence. Today, we know that to be effective, care should be evidence-based. And yet the “evidence” and current “best practices” in maternal and newborn care have failed to catch up with our teaching of students and in refresher training courses.

This BEmONC Learning Resource Package helps provide updates on best practices needed to teach service providers the most current evidence-based care. Use of this package assumes that basic skills, such as normal antenatal care (ANC) and assisting normal birth are already being provided by the participants.

The learning resource package consists of the following components:

- A Participant’s Handbook – containing the theoretical content and clinical skills considered to be necessary to prepare skilled birth attendants to provide BEmONC
- A Trainer’s Notebook, which includes answer keys for questionnaires, case studies and role plays, and detailed information for conducting the course
- Reference manuals
- Well-designed teaching/learning aids such as presentation graphics, videos, and anatomic models
- Competency-based performance evaluation

OVERVIEW OF THE TRAINING APPROACH

A well-performing health workforce is seen as one of the six “building blocks” of a health system; specifically, that workers are competent, responsive, and productive. Therefore addressing the training and education of health workers is a critical action for improving health.

Training interventions to improve worker performance are among the most important aspects of performance management and support for human resources development. Health care 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 those participants acquire the knowledge, attitudes, and skills needed to carry out a specific procedure or activity (such as assessing a newborn with a problem, managing a postpartum hemorrhage) and helping participants apply this procedure or activity on the job. The goal of clinical training is to assist health care workers in learning to provide safe, high-quality health 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:
1. **Skill acquisition:** The participant knows the steps and their sequence (if necessary) to perform the required skill or activity but needs assistance
2. **Skill competency:** The participant knows the steps and their sequence (if necessary) and can perform the required skill or activity
3. **Skill proficiency:** The participant knows the steps and their sequence (if necessary) and efficiently performs the required skill or activity

The use of competency-based checklists to measure clinical skills or other observable behaviors in comparison to a predetermined standard are an integral part of learning new skills. A checklist contains the individual steps or tasks in sequence (if necessary) required performing 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 checklists can be developed for it.

Checklists are used to help the participant learn the correct steps and sequence in which they should be performed (skill acquisition), and 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 questionnaire 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% 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 role plays and with anatomic models or simulations, they progress to learn other skills or to gain additional skill practice in a clinical setting with clients.

This means that participants know, from the beginning of the course, the basis on 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 USE OF ANATOMIC MODELS AND SIMULATIONS**

Another key component of competency-based training is the use of anatomic models and simulations to provide participants the opportunity to practice new skills before working in an actual clinical site. Practicing with models (e.g., to practice resuscitation) or in a simulated setting (e.g., learning stations equipped with real instruments and supplies to practice infection prevention practices) 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 models 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 health care worker who attends the course and the trainer who conducts it, supervisors and co-workers play a critical role in helping 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

Transfer of learning is defined as ensuring 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 health care 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.

<table>
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<tr>
<th>THE PERFORMANCE FACTORS</th>
<th>POSSIBLE INTERVENTIONS</th>
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<tbody>
<tr>
<td><strong>1. Job expectations</strong></td>
<td>• Provide adequate performance standards and detailed job descriptions.</td>
</tr>
<tr>
<td>Do providers know what they are supposed to do?</td>
<td>• Create the necessary channels to communicate job roles and responsibilities effectively.</td>
</tr>
<tr>
<td><strong>2. Performance feedback</strong></td>
<td>• Offer timely, constructive, and comprehensive information about how well performance is meeting expectations.</td>
</tr>
<tr>
<td>Do providers know how well they are doing?</td>
<td></td>
</tr>
<tr>
<td><strong>3. Physical environment and tools</strong></td>
<td>• Develop logistical and maintenance systems to provide a satisfactory physical environment and maintain adequate supplies and equipment.</td>
</tr>
<tr>
<td>What is the work environment like, and what systems are in place to support it?</td>
<td>• Design work space to suit activities.</td>
</tr>
<tr>
<td><strong>4. Motivation</strong></td>
<td>• Seek provider input to identify incentives for good performance.</td>
</tr>
<tr>
<td>Do people have a reason to perform as they are asked to perform? Does anyone notice?</td>
<td>• Provide positive consequences for good performance and neutral or negative consequences for below standard performance.</td>
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<tr>
<td></td>
<td>• Encourage co-workers to support new skills.</td>
</tr>
<tr>
<td><strong>5. Skills and knowledge to do the job</strong></td>
<td>• Ensure that job candidates have prerequisite skills.</td>
</tr>
<tr>
<td>Do providers know how to do the job?</td>
<td>• Provide access to trainers and information resources.</td>
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<tr>
<td></td>
<td>• Offer appropriate learning opportunities.</td>
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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 health care workers are properly supported in the workplace.

- **Trainers**: responsible for helping health care workers acquire the necessary knowledge and skills to perform well on the job.

- **Health care workers**: responsible for the delivery of high-quality services (e.g., clinicians, counsellors, administrators, cleaners).

- **Co-workers**: 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 co-workers undertake before, during, and after training to assure 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.

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<tr>
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<tr>
<td>Supervisors</td>
</tr>
<tr>
<td>• Understand the performance need</td>
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<tr>
<td>• Participate in any additional assessments required for training</td>
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<tr>
<td>• Influence selection of participants</td>
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<tr>
<td>• Communicate with trainers about the learning intervention</td>
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<tr>
<td>• Help participants create a preliminary action plan</td>
</tr>
<tr>
<td>• Support and encourage participants</td>
</tr>
<tr>
<td>Trainers</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TRANSFER OF LEARNING MATRIX</td>
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<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Before Learning</strong></td>
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<tr>
<td>performance needs assessment</td>
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<tr>
<td>• Use instructional design and learning principles to develop or adapt the course</td>
</tr>
<tr>
<td>• Send the course syllabus, objectives and precourse learning activities in advance</td>
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<tr>
<td><strong>Participants</strong></td>
</tr>
<tr>
<td>• Participate in needs assessments and planning</td>
</tr>
<tr>
<td>• Review course objectives and expectations and prepare preliminary action plans</td>
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<tr>
<td>• Begin establishing a support network</td>
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<tr>
<td>• Complete precourse learning activities</td>
</tr>
<tr>
<td><strong>Co-workers and others</strong></td>
</tr>
<tr>
<td>• Participate in needs assessments and discussions of the training’s intended impact</td>
</tr>
<tr>
<td>• Ask participants to bring back key learning points to share with the work group</td>
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</table>
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 should be developed during the training hopefully to those who can support the transfer of learning. And participants present their plan during the training course. They then complete it 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 that are realistic, measurable, and attainable.
- Identify clear responsibilities for participants, supervisors, co-workers, 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.

Developing an action plan should 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 1-17 for a sample of a completed action plan. This example is very detailed. This level of detail may not always be necessary, depending on the performance problem and the learning intervention being undertaken.

A blank action plan format can be found on page 1-19. Participants may copy this for their use or develop their own format.

**LEARNING METHODS**

A variety of learning methods, which complement the learning approach described in the previous section, are included in this learning resource package. A description of each learning method is provided below.

**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 *Managing Complications in Pregnancy and Childbirth* and *Pregnancy, Childbirth, Postpartum and Newborn Care* reference manuals.

In preparation for each lecture or interactive presentation, participants should be directed to read relevant sections of the reference manual (and other resource materials, if and when used) before each lecture. 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.
**Group Activities**
Group activities provide opportunities for participants to interact with each other and learn together. The main group activities in this learning resource package cover three important topics: clinical decision-making, interpersonal communication, and infection prevention (IP). All of these skills are essential for providing basic essential obstetric care (EOC).

**Case Studies**
The purpose of the case studies included in the training course is to help participants develop and practice clinical decision-making skills. The technical content of the case studies is taken from the relevant sections of the reference manual. While it is suggested in the course outline that the case studies be completed in small groups in the classroom, they can also be completed individually in the classroom or at the clinical site or as homework assignments.

There are seven required case studies and nine optional case studies included in the course.

**Required:**
- Ectopic pregnancy (1)
- Care in labor (1)
- Postpartum care (1)
- Pregnancy-induced hypertension (2)
- Vaginal bleeding after childbirth (1)
- Fever after childbirth (1)

**Optional:**
- Vaginal bleeding in early pregnancy (1)
- Vaginal bleeding in later pregnancy (2)
- Vaginal bleeding after childbirth (1)
- Malposition (1)
- Cord prolapse (1)
- Shoulder dystocia (1)
- Fever after childbirth (2)

These case studies follow a clinical decision-making framework comprising five steps (see below). Note, however, that in the case studies listed above, steps 3 (planning) and 4 (intervention) have been combined.

**STEPS IN CLINICAL DECISION-MAKING**

1. **Assessment (Gathering Information)**

   Both the client, through self-assessment, and the provider complete this first step in clinical decision-making. Usually it is the client (or the mother of a newborn) who first recognizes that there is a problem and goes to the provider for help. Often, the client’s chief complaint leads to a more significant or underlying problem. To identify the problem correctly, the provider needs to
collect information from and about the client that will assist in accurately diagnosing and treating the problem. Providers obtain information through history taking, physical examination, and diagnostic tests, if available and necessary. It is important to collect only the information that is relevant to reaching a diagnosis and providing appropriate treatment or care.

2. Diagnosis (Interpreting the Information)

After gathering information, the provider begins to formulate a differential diagnosis. Working from this point, the provider uses her/his experience, fund of knowledge, and clinical inference to guide the collection of additional information to accept or reject certain diagnoses and move toward a working diagnosis.

Initial impressions are often formulated early in the interaction with the client. Experienced providers may consider several possible diagnoses within the first five minutes with the client, often based on very little information. New providers, who may not be as familiar with the possible diagnoses, may take longer. The differential diagnoses will guide the collection of additional information that will help accept, reject, or distinguish between diagnoses. This additional information will also help the provider in selecting the appropriate treatment if the working diagnosis has several different treatment options.

3. Planning (Developing the Care Plan)

After reaching a working diagnosis, the provider decides on a treatment or care plan, using the information collected in the previous steps. For example, a mother who is reluctant to breastfeed because she has sore nipples may be provided counselling and assistance for proper attachment and positioning during breastfeeding, and encouragement to continue exclusive breastfeeding on demand. When deciding on a treatment or care plan, the provider will discuss the risks and benefits with the mother and agree on implementation and follow-up.

There are a number of factors that influence the choice of a treatment option, including:

- Provider’s experience
- Research and clinical evidence
- Provider’s values
- Client’s values
- Bias due to missing or incomplete data

4. Intervention (Implementing the Care Plan)

The next step in clinical decision-making is implementing the treatment or care plan. Implementation requires certain clinical skills and attention to detail during the performance of these skills. Some actions will have to be carried out simultaneously and others in sequence. In either case, advance preparation of equipment, supplies, and personnel will make the implementation of the treatment or care plan easier.
5. Evaluation (Evaluating the Care Plan)

In this step of clinical decision-making, the treatment or care provided is evaluated for its effectiveness. For example, evaluation of care for a young mother with sore nipples may include further observation of breastfeeding technique. Thus, planning, intervention, and evaluation follow a circular pattern in much the same way that assessment and diagnosis do.

Sometimes the evaluation of treatment or care, especially if it has not been effective, will require the collection of additional information and revision of the diagnosis, thus restarting the entire clinical decision-making process. Evaluation of the treatment or care plan can also lead the provider to a final diagnosis—a working diagnosis that has been confirmed by more objective information.

SKILLS PRACTICE SESSIONS AND CHECKLISTS

Skills practice sessions provide participants with opportunities to observe and practice clinical skills, usually in a simulated setting and occasionally at a clinical site. The outline for each skills practice session includes the purpose of the particular session, instructions for the trainer, and the resources needed to conduct the session, such as models, supplies, equipment, and checklists. Before conducting a skills practice session, the trainer should review the session and ensure that s/he can perform the relevant skill or activity. It will also be important to ensure that the necessary resources are available and that an appropriate location or room has been reserved.

The first step in a skills practice session requires that participants review the relevant checklist. Next, the trainer demonstrates the steps/tasks, several times if necessary, for the particular skill or activity and then has participants work in groups of two or three to practice the steps/tasks and observe each other’s performance, using the relevant checklist. The trainer should be available throughout the session to observe the performance of participants and provide guidance. Participants should be able to perform all of the steps/tasks in the checklist before the trainer assesses skill competency using the relevant checklist.

There are 16 skills practice sessions and checklists included in the course:

- Postabortion Care (Manual Vacuum Aspiration [MVA])
- Postabortion Family Planning Counseling
- Adult Resuscitation and Management of Shock
- Assessment of the Woman in Labor
- Assisting a Normal Birth
- Episiotomy and Repair
- Postpartum Care
- Breech Delivery
- Vacuum Extraction
- Management of Severe Pre-Eclampsia and Eclampsia
- Bimanual Compression of the Uterus
- Compression of the Abdominal Aorta
- Manual Removal of Placenta
- Newborn Resuscitation
• Managing Shoulder Dystocia
• Managing Cord Prolapse

These checklists contain the steps or tasks relevant to the skills for managing maternal and newborn care or problems, and correspond to the information presented in the applicable chapters of the reference manuals for the course to ensure standardization.

Using the checklists:

• Initially, participants can follow the checklist as the trainer demonstrates the steps or tasks for a particular procedure.

• Subsequently, during classroom and clinic practice sessions, they serve as step-by-step guides for the participant as s/he performs the skills. During this phase, participants work in groups of two or three, using the checklists 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.

• The checklists are then used by the clinical trainer to evaluate each participant’s performance in providing care.

• Criteria for assessment are included at the beginning of the checklists. Assessment of clinical skills will usually take place at the end of the training course. It is important that each participant demonstrate the steps or tasks at least once for feedback and coaching before 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.

Clinical Simulations
A clinical simulation is an activity in which the participant is presented with a carefully planned, realistic re-creation of an actual clinical situation. The participant interacts with persons and things in the environment, applies previous knowledge and skills to respond to a problem, and receives feedback about those responses without having to be concerned about real-life consequences. The purpose of using clinical simulations is to develop participants’ clinical decision-making skills.

The clinical simulations included in the learning resource package, therefore, provide participants with the opportunity to develop the skills they need to address complex, rare, or life-threatening situations before moving into the clinical practice area. The clinical simulations may, in fact, be the only opportunity participants have
to experience some rare situations and therefore may also be the only way that a trainer can assess participants’ abilities to manage such situations.

The simulations in this package combine elements of case studies, role plays, and skills practice using anatomic models (if available). The situations they present were selected because they are clinically important, require active participation by the participants, and include clinical decision-making and problem-solving skills. The simulations are structured so that they accurately reflect how clinical situations develop and progress in real life. Participants are provided with only a limited amount of information initially. As they analyze this information and identify additional information that is needed, it is provided. Participants may also perform any procedures or other skills as needed if the appropriate models and equipment are available. Based on the data they collect, participants make decisions regarding diagnoses, treatment, and further information needed. The trainer asks the participants questions about what they are doing, why a particular choice was made, what the other alternatives might be, what might happen if circumstances or findings were to change, and so forth—in other words, the trainer explores the participants’ decision-making process and depth of their knowledge and understanding, and provides feedback and suggestions for improvement.

The simulation should be conducted in as realistic a setting as possible; meaning that the models, equipment, and supplies needed for managing the situation should be available to the participant.

Participants will need time and repeated practice to achieve competency in the management of the complex situations presented in the simulations. They should be provided with as many opportunities to participate in simulations as possible. The same simulation can be used repeatedly until the situation it presents is mastered. It can also be adapted to address different causes for the problem it presents, different treatment options, or different outcomes, to provide participants with as wide a variety of experiences as possible. When a simulation is used for assessment, one standard version should be used with all participants to ensure the consistency of assessment standards and allow comparison of the performance of individual participants.

There are three clinical simulations included in the course:
- Shock
- Vaginal bleeding after childbirth
- Newborn asphyxia

**COMPONENTS OF THE BASIC EmONC LEARNING RESOURCE PACKAGE**

This clinical training course is based on the following components:

- A guide for participants containing validated questionnaires, skills checklists, case studies, and role plays
- A guide for trainers, which includes answer keys for questionnaires, case studies, and role plays; clinical simulations; and detailed information for conducting the course
• Well-designed teaching/learning aids such as presentation graphics, videos, and anatomic models

• A selection of up-to-date reference manuals containing the need-to-know information

• Competency-based performance evaluation

USING THE BASIC EmONC LEARNING RESOURCE 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 each course an assessment is made of each participant’s knowledge. The results of this precourse assessment are then used 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 participant’s handbook. The reference manual and the additional reference materials are designed to provide all of the essential information needed to conduct the course in a logical manner. Because they serve 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 and additional reference materials only contain information that is consistent with the course goals and objectives, they become an integral part of all classroom activities.

The participant’s handbook, on the other hand, serves a dual function. First, it is the road map that guides the participant through of the course. It contains the course syllabus and course schedule, as well as all supplemental printed materials (precourse questionnaire, individual and group assessment matrix, skills checklists, case studies, and role plays) needed during the course.

The trainer’s notebook contains material for the trainer. This includes the course outline; precourse questionnaire and answer key; midcourse questionnaire and answer key; and answer keys for case studies, role plays, and other exercises.

In keeping with the training philosophy on which this course is based, all training activities will be conducted in an interactive, participatory manner. To accomplish this requires that the role of the trainer continually change throughout the course.

In summary, the learning approach used in this course incorporates a number of key features. First, it is based on adult learning principles, which means that it is interactive, relevant, and practical. Moreover, it requires that the trainer facilitate the learning experience rather than serve in the more traditional role of an instructor or lecturer. Second, it involves use of behavior modeling to facilitate learning a standardized way of performing a skill or activity. Third, it is competency-based. This means that evaluation is based on how well the participant performs the procedure or activity, not just on how much has been learned. Fourth, where possible, it relies heavily on the use of anatomic models and other training aids (i.e.,
it is humanistic) to enable participants to practice repeatedly the standardized way of performing a skill or activity before working with clients. Thus, by the time the trainer evaluates each participant’s performance, using a checklist, every participant should be able to perform every skill or activity competently. This is the ultimate measure of training.
### EXAMPLE OF A COMPLETED ACTION PLAN

**Action Plan Goal:** Implementation of the 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>
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<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 2010</td>
<td>Copies of the service provision guidelines are available and used by all staff</td>
<td>By December 2005, 90% of doctors and nurses will be providing EMNC services according to new national service provision guidelines. Observe clinical practice in comparison with clinical protocols.</td>
</tr>
<tr>
<td>Participate in the Orientation Seminar of the District Health Management Team (DHMT)</td>
<td>Sister-in-charge and senior nurse/midwife</td>
<td>Transport and daily expenses</td>
<td>21 April 2010</td>
<td>Sister-in-charge demonstrates familiarity with contents of service provision guidelines by conducting an accurate staff orientation</td>
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<tr>
<td>Conduct orientation of all staff from the Maternity Ward</td>
<td>Sister-in-charge and senior nurse/midwife</td>
<td>Copies of the service provision guidelines</td>
<td>31 May 2010</td>
<td>Staff demonstrates familiarity with contents of service provision guidelines through participatory discussion led by sister-in-charge</td>
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<tr>
<td>Form Job Aids Committee</td>
<td>Senior nurse/midwife</td>
<td>None</td>
<td>31 May 2010</td>
<td>Committee exists and is creating job aids</td>
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<td>ACTIVITY</td>
<td>WHO DOES IT?</td>
<td>RESOURCES NEEDED</td>
<td>DATE NEEDED</td>
<td>HOW TO MONITOR THE ACTIVITY</td>
<td>RESULT AND HOW TO MEASURE</td>
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<td>Have Job Aids Committee review guidelines and identify clinical protocols to post on the walls of the Maternity Ward</td>
<td>Senior nurse/midwife</td>
<td>Copies of service provision guidelines, pen, and paper</td>
<td>15 June 2010</td>
<td>Observe minutes of the meeting</td>
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<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 2010</td>
<td>Photocopies exist</td>
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<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 2010</td>
<td>Observe that protocols are posted on the walls and referred to on a regular basis</td>
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EXAMPLE OF A BLANK ACTION PLAN

Performance Gap Addressed: ____________________________________________________________

Action Plan Goal: ________________________________________________________________

Facility: ____________________________________________________________

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<tr>
<th>ACTIVITY</th>
<th>WHO DOES IT?</th>
<th>RESOURCES NEEDED</th>
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TRAINING IN BEmONC

Although most pregnancies and births are uneventful, approximately 15% of all pregnant women develop a potentially life-threatening complication that calls for skilled care and some will require a major obstetrical intervention to survive. The main causes of maternal death and disability are complications arising from hemorrhage, unsafe abortion, eclampsia, sepsis, and obstructed labor/ruptured uterus. This training course is, therefore, designed to train doctors, midwives, and/or nurses with midwifery skills who, as team members, will provide basic EmONC at district hospitals and health centers to avert maternal death and disability.

The course follows a symptom-based approach to the management of life-threatening obstetric emergencies, as described in the reference manual recommended for the course (Managing Complications of Pregnancy and Childbirth MCPC, WHO 2000). The main topics in this training course and the reference manual are arranged by symptom (e.g., “vaginal bleeding in early pregnancy” is how someone with unsafe abortion will present, “convulsions” is how a patient with eclampsia presents, “shock” is how someone with severe postpartum hemorrhage presents). The emphasis in this course is on rapid assessment and decision-making and clinical action steps based on clinical assessment with limited reliance on laboratory or other tests, suitable for district hospitals and health centers in low-resource settings.

In addition, throughout the training course, emphasis is placed on providing women-friendly care and recognizing and respecting women’s rights to life, health, privacy, and dignity.

Finally, the setting-up and effective day-to-day management of EmOC services at district hospitals and health centers are included as an integral part of the course.

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 BEmONC by completing a written Precourse Questionnaire.

- Classroom and clinical sessions focus on key aspects of BEmONC.

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

- Clinical skills training builds on the participant’s previous experience relevant to BEmONC. For many of the skills, participants practice first with
anatomic models, using checklists that list the key steps in performing the skills/procedures for managing obstetric emergencies. In this way, they learn the standardized skills more quickly.

- Progress in learning new skills is documented using the checklists.
- A clinical trainer then uses the checklist to evaluate each participant’s performance.
- Clinical decision-making is learned and evaluated through case studies and simulated exercises and during clinical practice with patients.
- Appropriate interpersonal skills are learned through behavior modeling, role play, and evaluation during clinical practice with patients.

Successful completion of the course is based on mastery of the knowledge and skills components, as well as satisfactory overall performance in providing care for women who experience obstetric emergencies.

**EVALUATION**

This clinical training course is designed to produce health care providers (i.e., doctors, midwives, and/or nurses with midwifery skills) who are qualified to provide BEmONC, as team members, at district hospitals or health centers. 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 Midcourse Questionnaire.
- **Skills**: Satisfactory performance of clinical skills for managing obstetric emergencies.
- **Practice**: Demonstrated ability to provide care in the clinical setting for women who experience obstetric emergencies.

The participant and the trainer share responsibility for the participant becoming qualified.

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

- **Midcourse Questionnaire**: Knowledge will be assessed toward the end of the classroom sessions. 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.
Participants scoring less than 85% can take the Midcourse Questionnaire again at any time during the remainder of the course.

- **Clinical Skills**: Evaluation of clinical skills will occur with models in a simulated setting and with patients. In each setting, the clinical trainer will use skills checklists to evaluate each participant as they perform the skills and procedures. Case studies and clinical simulations 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 point during this period through observation of participants during role plays. Participants should be competent in performing the steps/tasks for a particular skill or procedure in a simulated setting before undertaking supervised practice at a clinical site. Although it is desirable that all of the skills/procedures included in the training course are learned and assessed in this manner, it may not be possible. For example, because obstetric emergencies are not common, opportunities to practice particular skills with patients may be limited; therefore, practice and assessment of skill competency should take place in a simulated setting.

- **Clinical Practice**: It is the clinical trainer’s responsibility to observe each participant’s overall performance in providing BEmONC. This includes observing the participant’s attitude—a critical component of high-quality service provision—toward women who experience obstetric emergencies and toward other members of the BEmONC team. By doing this, the clinical trainer assesses how the participant applies what s/he has learned.

**COURSE SYLLABUS**

**Course Description**: This clinical training course is designed to prepare participants to manage obstetric emergencies (including newborns requiring resuscitation) and work effectively as members of a BEmONC team. The course consists of a 3 ½-week block (20 training days) at a designated training site and focuses on the development, application, and evaluation of knowledge and skills.

**Course Goals**

- To influence in a positive way the attitudes of the participant toward team work and her/his abilities to manage and provide evidence-based care during normal (uncomplicated) pregnancy, labor and birth, and the postpartum periods as well as BEmONC services.

- To provide the participant with the knowledge and clinical skills needed to provide evidence-based care during normal (uncomplicated) labor and birth, and the postpartum periods as well as BEmONC services.

- To provide the participant with the decision-making skills needed to provide evidence-based care during normal (uncomplicated) pregnancy, labor and birth, and the postpartum periods as well as BEmONC services.
To provide the participant with the interpersonal communication skills needed to respect the right of women to life, health, privacy, and dignity.

**Participant Learning Objectives**

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

1. Describe Basic Emergency Obstetric and Newborn Care (BEmONC) and the provision of care in relation to reducing maternal and neonatal mortality and morbidity.

2. Describe the magnitude and causes of maternal and neonatal mortality in Afghanistan.

3. Use interpersonal communication techniques that facilitate the development of a caring and trusting relationship with the woman and her family.

4. Use interpersonal communication techniques to strengthen communication with, and involvement of, *shuras* in the design and implementation of BEmONC services.

5. Use recommended IP practices for all aspects of BEmONC.


7. Describe focused antenatal care and the components of birth preparedness and complication readiness.

8. Identify complications in mothers and newborns, perform first-line management (including performance of life-saving procedures and administration of life-saving drugs as per national protocols when needed) and make arrangements for effective referral.

9. Describe the process of rapid initial assessment and management of a woman who presents with a problem.

10. Identify the presenting symptoms and signs of shock.

11. Perform adult resuscitation and management of shock.

12. Identify the presenting symptoms and signs, determine the probable diagnosis, and use simplified management protocols for vaginal bleeding in early pregnancy.

13. Perform MVA for incomplete abortion.

14. Provide postabortion care including family planning counseling.
15. Provide evidence-based care for a woman during labor, birth and the immediate postpartum period, including active management of third stage labor.

16. Demonstrate use of the partograph to monitor progress in labor, recognize unsatisfactory progress in a timely manner, and respond appropriately.

17. Demonstrate clean and safe childbirth, including active management of the third stage of labor and immediate essential newborn care.

18. Demonstrate the technique of local anesthesia, and repair of vaginal and perineal lacerations, and episiotomy.

19. Provide essential newborn interventions, including those for warmth, cord care and eye care, recognize danger signs, and the promotion of early and exclusive breastfeeding.

20. Provide care to a woman and her baby up to 24 hours postpartum.

21. Support a woman and her baby to breastfeed successfully.

22. Perform a breech delivery.

23. Perform a vacuum extraction.

24. Identify the presenting symptoms and signs, determine the probable diagnosis and use simplified management protocols for pre-eclampsia and eclampsia.

25. Identify the presenting symptoms and signs, determine the probable diagnosis, and use simplified management protocols for vaginal bleeding after childbirth.

26. Demonstrate external and internal bimanual compression of the uterus used for management of postpartum hemorrhage due to uterine atony.

27. Demonstrate abdominal aortic compression.


29. Identify and manage shoulder dystocia.

30. Identify prolapsed cord and use simplified management protocols for managing it.

31. Identify the presenting symptoms and signs, determine the probable diagnosis, and use simplified management protocols for fever during pregnancy and after childbirth.

32. Perform basic newborn resuscitation using a self-inflating bag and mask.
Training/Learning Methods

- Illustrated lectures and group discussions
- Case studies
- Role plays
- Simulated practice with anatomic models
- Simulations for clinical decision-making
- Guided clinical activities (providing care and performing procedures for women requiring BEmONC)

Learning Materials

The learning materials for the course are as follows:

- **Reference manuals:**

- **Other resources:**
  - *The WHO Reproductive Health Library CD-Rom*

- Audiovisuals (videotapes) and presentation graphics on BEmONC

- **Instruments and equipment:**
  - The instruments and equipment required for demonstrating and practicing the procedures to be learned in the course are listed in each of the skills practice sessions.

- **Anatomic models:**
  - *Childbirth simulator and placenta/cord/amnion model*
  - *Zoe gynae model*
  - *Vinyl or cloth pelvic model and/or foam block*
  - *Fetal model (with hard skull)*
  - *Newborn resuscitation model*

Participant Selection Criteria

- Participants for this course must be practicing clinicians (doctors, midwives, and/or nurses with midwifery skills) who are involved in the provision of BEmONC.

- Participants should have the support of their supervisors or managers to achieve improved job performance after completing the course. In
particular, participants should be prepared to communicate with supervisors or managers about the course and seek endorsement for training, encouragement for attendance and participation, and involvement in the transfer of new knowledge and skills to their job.

**Methods of Evaluation**

*Participant Performance*
- Precourse and Midcourse Knowledge Assessment Questionnaires
- Checklists for essential skills/procedures

*Course*
- Course Evaluation (to be completed by each participant)

**Course Duration**

The course is composed of 11 days of classroom followed by nine days of supervised clinical practice. It is important to note that course duration may need to be revised depending on participants’ experience and progress in learning new knowledge and skills. For example, if participants do not develop skills competency by the end of the course, it may be necessary to extend supervised clinical practice and/or the self-directed practicum. Alternatively, it may also be necessary to extend the classroom component of the course.

**Suggested Course Composition**

- Six to eight pairs of doctors and midwives from the same facility (i.e., a total of 12–16 participants working in doctor-midwife pairs)
- Four clinical trainers (two doctors and two midwives)
**KNOWLEDGE UPDATE AND CLINICAL SKILLS STANDARDIZATION**  
**BASIC EMERGENCY/HIGH DEPENDANCY OBSTETRIC and NEWBORN CARE (BEmONC)**

<table>
<thead>
<tr>
<th>COURSE SCHEDULE (20 TRAINING DAYS – 3 ½ WEEKS)</th>
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</thead>
<tbody>
<tr>
<td><strong>DAY 1</strong></td>
</tr>
<tr>
<td>8.30 am – 12.30 pm Opening</td>
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<tr>
<td>Welcome and introductions</td>
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<tr>
<td><strong>Overview of the course:</strong></td>
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<tr>
<td>• Identify participant expectations</td>
</tr>
<tr>
<td>• Goals, objectives, schedule</td>
</tr>
<tr>
<td>• Review course materials</td>
</tr>
<tr>
<td>• Course norms</td>
</tr>
</tbody>
</table>
| **Pre-course Knowledge:** | **Exercise 1:** Who Has HIV/HBV? |**Interactive Presentation:** Partograph: 
- Using the partograph 
- Normal labor 
- Unsatisfactory progress in labor | **Exercise 2:** Supporting the Woman in Labor | 
| Identify individual and group learning needs | **Interactive Presentation:** Infection prevention | **Skill Demonstrations:** 
- MVA using model, postabortion family planning counseling 
- Unsatisfactory progress in labor | **Skill Practice:** Participants practice clean and safe childbirth in pairs using model | 
| **Interactive Presentation:** Improving Maternal and Newborn Health in Afghanistan | **Video film:** Infection prevention | **Skill Practice:** MVA using model, postabortion family planning counseling | 
| **Video film:** Maternal Health in Afghanistan (BBC/WHO) | **Demonstration:** Handwashing 
- PPE 
- Decontamination 
- Sharps handling | **Exercise 2:** Plotting and interpreting the partograph | 
| **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** | **LUNCH** |
| 1.30 – 4.00 pm | 1.30 pm – 4.00 pm | 1.30 pm – 4.00 pm | 1.30 pm – 4.00 pm | 1.30 pm – 4.00 pm |
| **Role Play 1:** Communicating about a Woman’s Right to Safe Motherhood | **Exercise 1:** Who Has HIV/HBV? | **Case Study 1:** Bleeding in early pregnancy | **Interactive Presentation:** Partograph: 
- Using the partograph 
- Normal labor 
- Unsatisfactory progress in labor | **Case Study 2:** Supporting the Woman in Labor |
| **Interactive Presentation and Group Discussion:** Women Friendly Care | **Interactive Presentation:** Infection prevention | **Skill Demonstrations:** 
- MVA using model, postabortion family planning counseling 
- Unsatisfactory progress in labor | **Exercise 2:** Plotting and interpreting the partograph | 
| **Discussion:** Review Pre-Course Knowledge assessment, Individual and group assessment matrix | **Video film:** Infection prevention | **Skill Practice:** MVA using model, postabortion family planning counseling | 

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Basic EmONC Course
<table>
<thead>
<tr>
<th>Review of the day’s activity</th>
<th>Review of the day’s activity</th>
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<tr>
<td>• Instrument handling and preparation</td>
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</tr>
<tr>
<td>Reading Assignment: Complete personal learning plan</td>
<td>Reading Assignment: MCPC pages S-7 to S-23, C-23 to C-29, S-1 to S-5, P-65 to P-68</td>
<td>Reading Assignment: MCPC pages C-57 to C-76, S-57 to S-67;</td>
<td>Reading Assignment: MCPC pages P-71 to P-75, P-81 to P-90; PCPNC Section D2 – D13;</td>
<td>Reading Assignment: MCPC pages S-69 to S-81, P-27 to P-31, P-37 to P-42; PCPNC D19 – D28 and E2 – E4</td>
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<tr>
<td>Read MCPC pages C-1 to C-6</td>
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<tr>
<td>PCPNC Section C1 – C18</td>
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<td>DAY 6</td>
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<tr>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Agenda and opening activity</td>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Agenda and Warm up</td>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Agenda and Warm up</td>
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<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Agenda and opening activity</td>
</tr>
<tr>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Care of the woman in the postpartum period</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Headaches, blurred vision, convulsions, loss of consciousness, elevated blood pressure</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Vaginal bleeding after childbirth</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Essential Newborn (NB) Care</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Shoulder Dystocia</td>
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<tr>
<td><strong>Case Study 3:</strong> Postpartum Assessment and Care</td>
<td><strong>Case Studies 4 and 5:</strong> Pregnancy-induced hypertension</td>
<td><strong>Case Study 7:</strong> Vaginal bleeding after childbirth</td>
<td><strong>Skill Demonstration:</strong>&lt;br&gt;Shoulder Dystocia</td>
<td><strong>Skill Demonstration:</strong>&lt;br&gt;Shoulder Dystocia</td>
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<tr>
<td><strong>Role Play 2:</strong> Communicating about Family Planning Choices</td>
<td><strong>Skill Demonstration:</strong>&lt;br&gt;Management of severe pre-eclampsia/eclampsia</td>
<td><strong>Skill Demonstrations:</strong>&lt;br&gt;Bimanual compression of uterus, abdominal aortic compression, manual removal of placenta</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Management of severe pre-eclampsia/eclampsia</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Shoulder Dystocia</td>
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<tr>
<td><strong>Skill Demonstration:</strong>&lt;br&gt;Rational use episiotomy and perineal repair</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Management of severe pre-eclampsia/eclampsia</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Bimanual compression of uterus, abdominal aortic compression, manual removal of placenta using model</td>
<td><strong>Clinical simulation 3:</strong>&lt;br&gt;Newborn resuscitation</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Overview newborn problems</td>
</tr>
<tr>
<td><strong>Skill Practice:</strong>&lt;br&gt;Episiotomy and perineal repair in pairs using foam blocks</td>
<td><strong>Practice:</strong>&lt;br&gt;Vacuum extraction using models</td>
<td><strong>Practice:</strong>&lt;br&gt;Using models for vacuum extraction in pairs</td>
<td><strong>Practice/Evaluation Using Models:</strong>&lt;br&gt;Newborn resuscitation using model</td>
<td><strong>Skills Practice/Evaluation Using Models:</strong>&lt;br&gt;Shoulder Dystocia</td>
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<tr>
<td><strong>LUNCH</strong></td>
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<tr>
<td><strong>1.30 – 4.00 pm</strong>&lt;br&gt;Video Film:&lt;br&gt;Breech delivery</td>
<td><strong>1.30 – 4.00 pm</strong>&lt;br&gt;Interactive Presentation:&lt;br&gt;Fever during pregnancy and after childbirth</td>
<td><strong>1.30 pm – 4.00 pm</strong>&lt;br&gt;Clinical Simulation 2:&lt;br&gt;Management of Vaginal Bleeding After Childbirth</td>
<td><strong>1.30 pm – 4.00 pm</strong>&lt;br&gt;Interactive Presentation and Video Film:&lt;br&gt;Vacuum extraction</td>
<td><strong>1.30 pm – 4.00 pm</strong>&lt;br&gt;Skills Practice/Evaluation Using Models (cont.)</td>
</tr>
<tr>
<td><strong>Skill Demonstrations:</strong>&lt;br&gt;Breech delivery using models</td>
<td><strong>Case Study 6:</strong> Fever after childbirth</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Managing Prolapsed Cord</td>
<td><strong>Skill Demonstrations:</strong>&lt;br&gt;Vacuum extraction using models</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Participants practice vacuum extraction in pairs using models</td>
</tr>
<tr>
<td><strong>Skill Practice:</strong>&lt;br&gt;Breech delivery using models</td>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Managing Prolapsed Cord</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Managing Cord Prolapsed</td>
<td><strong>Skill Practice:</strong>&lt;br&gt;Participants practice vacuum extraction in pairs using models</td>
<td><strong>Skills Practice/Evaluation Using Models</strong></td>
</tr>
<tr>
<td><strong>Review of the day’s activity</strong></td>
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<tr>
<td><strong>Reading Assignment:</strong>&lt;br&gt;MCPC pages S-35 to S-50, S-107 to S-114.</td>
<td><strong>Reading Assignment:</strong>&lt;br&gt;MCPC pages S-25 to S-34, P-77 to P-79; S-97 to S-98; S-99 to S-113</td>
<td><strong>Reading Assignment:</strong>&lt;br&gt;MCPC S-95 to S-96 C-75 to C-80; S-141 to S-150;</td>
<td><strong>Reading Assignment:</strong>&lt;br&gt;MCPC S-83 to S-85 PCPNC J3 – J11</td>
<td><strong>Assignment:</strong>&lt;br&gt;Participants who scored less than 85% on the midcourse questionnaire should study relevant sections of reference manual(s)</td>
</tr>
<tr>
<td><strong>DAY 11</strong></td>
<td><strong>DAY 12</strong></td>
<td><strong>DAY 13</strong></td>
<td><strong>DAY 14</strong></td>
<td><strong>DAY 15</strong></td>
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<tr>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Agenda and Warm-up</td>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Clinical Practice:</td>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Clinical Practice</td>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Clinical Practice</td>
<td><strong>8.30 am – 12.30 pm</strong>&lt;br&gt;Clinical Practice</td>
</tr>
<tr>
<td><strong>Midcourse Knowledge Assessment Questionnaire</strong></td>
<td><strong>Team 1: Emergency/High Dependency Area</strong>&lt;br&gt;- Early pregnancy bleeding&lt;br&gt;- Shock&lt;br&gt;- Severe PE/Eclampsia</td>
<td><strong>Team 2: Emergency/High Dependency Area</strong>&lt;br&gt;- Early pregnancy bleeding&lt;br&gt;- Shock&lt;br&gt;- Severe PE/Eclampsia</td>
<td><strong>Team 3: Emergency/High Dependency Area</strong>&lt;br&gt;- Early pregnancy bleeding&lt;br&gt;- Shock&lt;br&gt;- Severe PE/Eclampsia</td>
<td><strong>Team 4: Emergency/High Dependency Area</strong>&lt;br&gt;- Early pregnancy bleeding&lt;br&gt;- Shock&lt;br&gt;- Severe PE/Eclampsia</td>
</tr>
<tr>
<td><strong>Interactive Presentation:</strong>&lt;br&gt;Pain management and analgesia and anesthesia in EOC with group work</td>
<td><strong>Team 2: Admission/Labor Room</strong>&lt;br&gt;- Assessment of women in labor, use of partograph&lt;br&gt;- Care of women in labor</td>
<td><strong>Team 3: Admission/Labor Room</strong>&lt;br&gt;- Assessment of women in labor, use of partograph&lt;br&gt;- Care of women in labor</td>
<td><strong>Team 4: Admission/Labor Room</strong>&lt;br&gt;- Assessment of women in labor, use of partograph&lt;br&gt;- Care of women in labor</td>
<td><strong>Team 1: Admission/Labor Room</strong>&lt;br&gt;- Assessment of women in labor, use of partograph&lt;br&gt;- Care of women in labor</td>
</tr>
<tr>
<td><strong>Discussion:</strong>&lt;br&gt;Instructions for Clinical Practice and Responsibilities in L&amp;D</td>
<td><strong>Team 3: Delivery Room</strong>&lt;br&gt;- Normal delivery&lt;br&gt;- Episiotomy and repair&lt;br&gt;- Complicated delivery&lt;br&gt;- Management of PPH&lt;br&gt;- Newborn (NB) resuscitation</td>
<td><strong>Team 4: Delivery Room</strong>&lt;br&gt;- Normal delivery&lt;br&gt;- Episiotomy and repair&lt;br&gt;- Complicated delivery&lt;br&gt;- Management of PPH&lt;br&gt;- Newborn (NB) resuscitation</td>
<td><strong>Team 1: Postpartum and NB Care</strong>&lt;br&gt;- Postpartum exam&lt;br&gt;- Newborn care</td>
<td><strong>Team 2: Postpartum and NB Care</strong>&lt;br&gt;- Postpartum exam&lt;br&gt;- Newborn care</td>
</tr>
<tr>
<td><strong>Continue Skills Evaluation Using Models</strong></td>
<td><strong>Team 4: Postpartum and NB Care</strong>&lt;br&gt;- Postpartum care&lt;br&gt;- Newborn care</td>
<td><strong>Team 1: Postpartum and NB Care</strong>&lt;br&gt;- Postpartum care&lt;br&gt;- Newborn care</td>
<td><strong>Team 2: Postpartum and NB Care</strong>&lt;br&gt;- Postpartum care&lt;br&gt;- Newborn care</td>
<td><strong>Team 3: Postpartum and NB Care</strong>&lt;br&gt;- Postpartum care&lt;br&gt;- Newborn care</td>
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<tr>
<td><strong>LUNCH</strong></td>
<td><strong>1.30 pm – 4.00 pm</strong></td>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
<td><strong>LUNCH</strong></td>
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<tr>
<td><strong>1.30 pm – 4.00 pm</strong>&lt;br&gt;Discussion: Review results of midcourse knowledge assessment questionnaire</td>
<td><strong>Clinical Practice (Cont.)</strong></td>
<td><strong>Lunch: Review of the day’s activities</strong></td>
<td><strong>Lunch: Review of the day’s activities</strong></td>
<td><strong>Lunch: Review of the day’s activities</strong></td>
</tr>
<tr>
<td><strong>Activity:</strong> Tour of clinical facilities</td>
<td><strong>Discussion:</strong> Lessons from clinical experience</td>
<td>&lt;br&gt;<strong>Review of the day’s activities</strong></td>
<td><strong>Discussion:</strong> Lessons from clinical experience</td>
<td><strong>Discussion:</strong> Lessons from clinical experience</td>
</tr>
<tr>
<td><strong>Review of the day’s activities</strong></td>
<td><strong>Review of the day’s activities</strong></td>
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<tr>
<td><strong>MCPC: Review all relevant sections. Review and become familiar with Clinical Experience Log Book</strong></td>
<td><strong>MCPC: Review all relevant sections. Review and become familiar with Clinical Experience Log Book</strong></td>
<td><strong>Reading Assignment:</strong> Review relevant sections of MCPC and PCPNC</td>
<td><strong>Reading Assignment:</strong> Review relevant sections of MCPC and PCPNC</td>
<td><strong>Reading Assignment:</strong> Review relevant sections of MCPC and PCPNC</td>
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**Basic EmONC Course**

Course Schedule 1-32
### DAY 16

**08.30 am – 12.30 pm**  
Clinical Practice  

**Team 1: Emergency/High Dependency Area**  
- Early pregnancy bleeding  
- Shock  
- Severe PE/Eclampsia  

**Team 2: Admission/Labor Room**  
- Assessment of women in labor, use of partograph  
- Care of women in labor  

**Team 3: Delivery Room**  
- Normal delivery  
- Episiotomy and repair  
- Complicated delivery  
- Management of PPH  
- Newborn (NB) resuscitation  

**Team 4: Postpartum and NB Care**  
- Postpartum exam  
- Newborn care  

**LUNCH**  
1.30 pm – 4.00 pm  
Clinical Duty Continues  

**Discussion:**  
Lessons from clinical experience  

Optional Case Studies

---

### DAY 17

**08.30 am – 12.30 pm**  
Clinical Practice  

**Team 2: Emergency/High Dependency Area**  
- Early pregnancy bleeding  
- Shock  
- Severe PE/Eclampsia  

**Team 3: Admission/Labor Room**  
- Assessment of women in labor, use of partograph  
- Care of women in labor  

**Team 4: Delivery Room**  
- Normal delivery  
- Episiotomy and repair  
- Complicated delivery  
- Management of PPH  
- Newborn (NB) resuscitation  

**Team 1: Postpartum and NB Care**  
- Postpartum exam  
- Newborn care  

**LUNCH**  
1.30 pm – 4.00 pm  
Clinical Duty Continues  

**Discussion:**  
Lessons from clinical experience  

Optional Case Studies Postabortion care including uterine evacuation with MVA

---

### DAY 18

**08.30 am – 12.30 pm**  
Clinical Practice  

**Team 3: Emergency/High Dependency Area**  
- Early pregnancy bleeding  
- Shock  
- Severe PE/Eclampsia  

**Team 4: Admission/Labor Room**  
- Assessment of women in labor, use of partograph  
- Care of women in labor  

**Team 1: Delivery Room**  
- Normal delivery  
- Episiotomy and repair  
- Complicated delivery  
- Management of PPH  
- Newborn (NB) resuscitation  

**Team 2: Postpartum and NB Care**  
- Postpartum exam  
- Newborn care  

**LUNCH**  
1.30 pm – 4.00 pm  
Clinical Duty Continues  

**Discussion:**  
Lessons from clinical experience  

**Interactive Presentation:**  
Implementation of Obstetric Register

**Improving access to and quality of EmOC services**  

**Discussion:**  
Preparing action plans

---

### DAY 19

**08.30 am – 12.30 pm**  
Clinical Practice  

**Team 1: Emergency/High Dependency Area**  
- Early pregnancy bleeding  
- Shock  
- Severe PE/Eclampsia  

**Team 2: Admission/Labor Room**  
- Assessment of women in labor, use of partograph  
- Care of women in labor  

**Team 3: Delivery Room**  
- Normal delivery  
- Episiotomy and repair  
- Complicated delivery  
- Management of PPH  
- Newborn (NB) resuscitation  

**Team 4: Postpartum and NB Care**  
- Postpartum exam  
- Newborn care  

**LUNCH**  
1.30 pm – 4.00 pm  
Clinical check-out with clients for any remaining participants  

**Group Work:**  
Review personal learning plans and develop action plans  

**Presentations:**  
Action plans  

**Next Steps:**  
Log book, on-the-job learning  

**Course Evaluation and Summary**  
Closing Ceremony

---

### DAY 20

**08.30 am – 12.30 pm**  
Agenda and Warm up  

**Team 1: Emergency/High Dependency Area**  
- Early pregnancy bleeding  
- Shock  
- Severe PE/Eclampsia  

**Team 2: Admission/Labor Room**  
- Assessment of women in labor, use of partograph  
- Care of women in labor  

**Team 3: Delivery Room**  
- Normal delivery  
- Episiotomy and repair  
- Complicated delivery  
- Management of PPH  
- Newborn (NB) resuscitation  

**Team 4: Postpartum and NB Care**  
- Postpartum exam  
- Newborn care  

**LUNCH**  
1.30 pm – 4.00 pm  
Clinical check-out with clients for any remaining participants  

**Group Work:**  
Review personal learning plans and develop action plans  

**Presentations:**  
Action plans  

**Next Steps:**  
Log book, on-the-job learning  

**Course Evaluation and Summary**  
Closing Ceremony
<table>
<thead>
<tr>
<th>Review of the day's activities</th>
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<tbody>
<tr>
<td><strong>Reading Assignment:</strong> Review relevant sections of MCPC and PCPNC</td>
<td><strong>Reading Assignment:</strong> Review relevant sections of MCPC and PCPNC</td>
<td><strong>Reading Assignment:</strong> Review relevant sections of MCPC and PCPNC</td>
<td><strong>Prep of action plans</strong></td>
</tr>
</tbody>
</table>
PRE COURSE KNOWLEDGE ASSESSMENT QUESTIONNAIRE

HOW THE RESULTS WILL BE USED

The main objective of the Precourse Knowledge Assessment Questionnaire is to assist both the trainer and the participant as they begin their work together in the course by assessing what the participants, individually and as a group, know about the course topics. This allows the 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, is provided to record the scores of all course participants. Using this form, the trainer and participants can quickly chart the number of correct answers for each of the questions. By examining the data in the matrix, the group members can easily determine their collective strengths and weaknesses and jointly plan with the trainer how to best use the course time to achieve the desired learning objectives.

For the 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 trainer may elect to use some of the allotted time for other purposes.
## PRECOURSE KNOWLEDGE QUESTIONNAIRE

### MANAGEMENT OF SHOCK; RAPID INITIAL ASSESSMENT

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer</th>
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<tbody>
<tr>
<td>1. Quick check and rapid initial assessment should be carried out on all women of childbearing age who present with a problem.</td>
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<tr>
<td>2. A woman who suffers shock as a result of an obstetric emergency may have a fast, weak pulse.</td>
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<td>3. The immediate management of ectopic pregnancy involves observing the woman for signs of improvement.</td>
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### BLEEDING DURING PREGNANCY AND LABOR

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer</th>
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<tbody>
<tr>
<td>4. Manual vacuum aspiration (MVA) is an effective method for treatment of incomplete abortion if the uterine size is not greater than 8 weeks.</td>
<td></td>
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<tr>
<td>5. A client cannot become pregnant until the first menses after an abortion</td>
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<tr>
<td>6. If bleeding is heavy in the case of abruptio placenta and the cervix is fully dilated, delivery should be assisted by vacuum extraction.</td>
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### LABOR AND CHILDBIRTH

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Cervical dilation plotted to the right of the alert line on the partograph indicates unsatisfactory progress of labor.</td>
<td></td>
</tr>
<tr>
<td>8. If the active phase of labor is prolonged, delivery should be by cesarean section.</td>
<td></td>
</tr>
<tr>
<td>9. An episiotomy should be routinely performed in primigravida.</td>
<td></td>
</tr>
<tr>
<td>10. Continuous supportive care from a caring health provider or a relative improves birth outcomes</td>
<td></td>
</tr>
<tr>
<td>11. All instruments used in a delivery should be decontaminated with 0.5% chlorine for 30 minutes</td>
<td></td>
</tr>
<tr>
<td>12. Conditions for vacuum extraction are fetal head at least at 0 station or not more than 2/5 above the symphysis pubis and a fully dilated cervix.</td>
<td></td>
</tr>
<tr>
<td>13. A head that is felt in the flank on abdominal examination indicates a shoulder presentation or transverse lie.</td>
<td></td>
</tr>
<tr>
<td>14. If labor is prolonged in the case of a breech presentation, a cesarean section should be performed.</td>
<td></td>
</tr>
<tr>
<td>15. Absent fetal movements and fetal heart sounds, together with intra-abdominal and/or vaginal bleeding and severe abdominal pain, suggest ruptured uterus.</td>
<td></td>
</tr>
</tbody>
</table>

### MANAGEMENT OF THIRD STAGE OF LABOR

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Active management of the third stage of labor should be practiced only on women who have a history of postpartum hemorrhage.</td>
<td></td>
</tr>
<tr>
<td>17. The uterotonics of choice for active management of the third stage of labor is Ergometrine 0.5 mg.</td>
<td></td>
</tr>
<tr>
<td>Questions</td>
<td>Answer</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>VAGINAL BLEEDING AFTER BIRTH</strong></td>
<td>18. Vaginal bleeding in excess of 500 mL after birth is defined as postpartum hemorrhage.</td>
</tr>
<tr>
<td></td>
<td>19. Immediate postpartum hemorrhage is always due to uterine atony.</td>
</tr>
<tr>
<td></td>
<td>20. Delayed postpartum bleeding is always characterized by light, irregular vaginal bleeding.</td>
</tr>
<tr>
<td><strong>HEADACHES, BLURRED VISION, CONVULSIONS, LOSS OF CONSCIOUSNESS OR ELEVATED BLOOD PRESSURE</strong></td>
<td>21. Hypertension in pregnancy can be associated with protein in the urine.</td>
</tr>
<tr>
<td></td>
<td>22. The presenting signs and symptoms of eclampsia include convulsions, diastolic blood pressure of 90 mm Hg or more after 20 weeks’ gestation and proteinuria of 2+ or more.</td>
</tr>
<tr>
<td></td>
<td>23. A pregnant woman who is convulsing should be protected from injury by moving objects away from her.</td>
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<tr>
<td></td>
<td>24. The management of mild pre-eclampsia should include sedatives and tranquilizers.</td>
</tr>
<tr>
<td></td>
<td>25. The drug of choice for preventing and treating convulsions in severe pre-eclampsia and eclampsia is diazepam.</td>
</tr>
<tr>
<td><strong>FEVER DURING AND AFTER CHILDBIRTH</strong></td>
<td>26. Breast pain and tenderness 3 to 5 days after childbirth is usually due to mastitis.</td>
</tr>
<tr>
<td></td>
<td>27. Lower abdominal pain and uterine tenderness, together with foul-smelling lochia, are characteristic of metritis.</td>
</tr>
<tr>
<td><strong>NEWBORN</strong></td>
<td>28. The three main causes of newborn mortality globally are birth asphyxia, prematurity and infection.</td>
</tr>
<tr>
<td></td>
<td>29. Room air rather than oxygen is sufficient for resuscitation on most cases.</td>
</tr>
<tr>
<td></td>
<td>30. When using a bag and mask to resuscitate a newborn, the newborn’s neck must be slightly extended to open the airway.</td>
</tr>
</tbody>
</table>
# Basic EmONC Course

## Individual and Group Assessment Matrix

**COURSE:** ________________________________  **TRAINER(S):** __________________________________________  **DATES:** __________________

<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 21 22 23 24</td>
<td>MANAGEMENT OF SHOCK; RAPID INITIAL ASSESSMENT</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td>BLEEDING DURING PREGNANCY AND LABOR</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>LABOR AND CHILDBIRTH</td>
</tr>
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<td>12</td>
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<tr>
<td>Question Number</td>
<td>CORRECT ANSWERS (Participants)</td>
<td>CATEGORIES</td>
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<tr>
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</tr>
<tr>
<td>13</td>
<td></td>
<td>MANAGEMENT OF THIRD STAGE OF LABOR</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>HEADACHES, BLURRED VISION, CONVULSIONS, LOSS OF CONSCIOUSNESS OR ELEVATED BLOOD PRESSURE</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>FEVER DURING AND AFTER CHILDBIRTH</td>
</tr>
<tr>
<td>16</td>
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<td>NEWBORN</td>
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<td>28</td>
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<tr>
<td>Question Number</td>
<td>Correct Answers (Participants)</td>
<td>Categories</td>
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<tr>
<td>29</td>
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</tbody>
</table>
**BASIC EmONC COURSE**  
**CONFIDENTIAL CLINICAL EXPERIENCE QUESTIONNAIRE**

Name: ___________________________________ Date: ______________________________________

Name of institution you are working in:
For teaching/training: _______________________________________________________________
For clinical practice: ________________________________________________________________

Qualification (state all degrees and diplomas and year obtained)

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Year obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Number of years in active clinical maternal and neonatal practice since qualification: ________________________________

The following questions refer to your clinical and teaching activities. For each skill listed on the reverse, please record:

1. The number of cases you personally managed in the last six months
2. The degree of confidence you have in performing these skills
3. Whether you have taught this skill in the last six months
<table>
<thead>
<tr>
<th>Skill</th>
<th>Number of Cases in Last 6 Months</th>
<th>Degree of Confidence (a, b, or c)*</th>
<th>Have Taught This Skill in Last 6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing vaginal bleeding in early pregnancy</td>
<td></td>
<td></td>
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<tr>
<td>Managing vaginal bleeding in later pregnancy</td>
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<tr>
<td>Performing manual vacuum aspiration for postabortion care</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Managing shock</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring labor using partograph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assisting normal childbirth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performing active management of third stage of labor</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Performing episiotomy and perineal repair</td>
<td></td>
<td></td>
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<tr>
<td>Conducting breech delivery</td>
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<td></td>
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<tr>
<td>Performing vacuum extraction</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Providing immediate postpartum care</td>
<td></td>
<td></td>
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<tr>
<td>Managing severe pre-eclampsia/eclampsia</td>
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<td></td>
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<tr>
<td>Managing vaginal bleeding after childbirth</td>
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<tr>
<td>Performing bimanual compression of the uterus</td>
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<td></td>
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<tr>
<td>Performing abdominal aortic compression</td>
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<td></td>
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</tr>
<tr>
<td>Performing manual removal of placenta</td>
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<td></td>
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<tr>
<td>Managing shoulder dystocia</td>
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<td></td>
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<tr>
<td>Managing cord prolapse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing fever during pregnancy or after childbirth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing newborn care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performing newborn resuscitation</td>
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<td></td>
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</tbody>
</table>

*Rank degree of confidence: a = very confident, I do not need any coaching; b = not very confident, I need coaching; c = I cannot perform this skill
BASIC EmONC COURSE  
PERSONAL LEARNING PLAN

Name: ___________________________________ Date: ___________________________________

Instructions: Review the list of basic EOC skills, below, and determine the five priority areas in which you wish to improve your knowledge and/or skills. This decision should be based on the Basic EOC Course learning objectives, your responses to the Confidential Clinical Experience Questionnaire, and discussions with your supervisor and colleagues.

Basic EOC Skills

Managing vaginal bleeding in early pregnancy  Providing immediate postpartum care
Managing vaginal bleeding in later pregnancy  Managing severe pre-eclampsia/eclampsia
Performing MVA for postabortion care  Managing vaginal bleeding after childbirth
Managing shock  Performing bimanual compression of the uterus
Monitoring labor using partograph  Performing abdominal aortic compression
Assisting normal childbirth  Performing manual removal of placenta
Performing active management of third stage of labor  Managing fever during pregnancy or after childbirth
Performing episiotomy and perineal repair  Providing newborn care
Conducting breech delivery  Performing newborn resuscitation
Performing vacuum extraction  Managing shoulder dystocia
Managing cord prolapse

The five priority areas for my learning plan are:

1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________
5. __________________________________________

For each of the five priority areas listed above, I wish to focus on the following component(s) of care (check all that apply):

1.  
   □ Patient assessment/diagnosis  □ Clinical procedures
   □ Patient management  □ Infection prevention

2.  
   □ Patient assessment/diagnosis  □ Clinical procedures
   □ Patient management  □ Infection prevention
3. [ ] Patient assessment/diagnosis [ ] Clinical procedures
   [ ] Patient management [ ] Infection prevention

4. [ ] Patient assessment/diagnosis [ ] Clinical procedures
   [ ] Patient management [ ] Infection prevention

5. [ ] Patient assessment/diagnosis [ ] Clinical procedures
   [ ] Patient management [ ] Infection prevention
# Basic EmONC Course

## Record of Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>Case Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postabortion care (MVA)</td>
<td></td>
</tr>
<tr>
<td>Postabortion family planning counseling</td>
<td></td>
</tr>
<tr>
<td>Adult resuscitation and management of shock</td>
<td></td>
</tr>
<tr>
<td>Assessment of the woman in labor</td>
<td></td>
</tr>
<tr>
<td>Use of partograph</td>
<td></td>
</tr>
<tr>
<td>Assist normal birth, including active management of third stage and immediate essential newborn care</td>
<td></td>
</tr>
<tr>
<td>Postpartum care</td>
<td></td>
</tr>
<tr>
<td>Perineal/episiotomy repair</td>
<td></td>
</tr>
<tr>
<td>Breech delivery</td>
<td></td>
</tr>
<tr>
<td>Vacuum extraction</td>
<td></td>
</tr>
<tr>
<td>Management of severe pre-eclampsia/eclampsia</td>
<td></td>
</tr>
<tr>
<td>Bimanual compression of uterus</td>
<td></td>
</tr>
<tr>
<td>Compression of abdominal aorta</td>
<td></td>
</tr>
<tr>
<td>Manual removal of placenta</td>
<td></td>
</tr>
<tr>
<td>Newborn resuscitation</td>
<td></td>
</tr>
<tr>
<td>Managing shoulder dystocia</td>
<td></td>
</tr>
<tr>
<td>Managing cord prolapse</td>
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</tbody>
</table>

**Note:** The trainer or clinical preceptor will initial case number and note level of competency: M = performed competently with models; S = performed with client/patient under supervision of trainer or clinical preceptor; C = performed competently with client/patient.
## GUIDELINES FOR FINAL ASSESSMENT OF COMPETENCY

<table>
<thead>
<tr>
<th>Skills for which <em>final</em> assessment <em>may</em> be completed using case studies or clinical simulations (patients should be used whenever possible)</th>
<th>Skills for which <em>final</em> assessment <em>must</em> be completed with patients (skills should be learned to competency with models, case studies, or clinical simulations first)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postabortion care (MVA)</td>
<td>Assessment of the woman in labor</td>
</tr>
<tr>
<td>Postabortion family planning counseling</td>
<td>Use of partograph</td>
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<tr>
<td>Adult resuscitation and management of shock</td>
<td>Assist normal birth, including active management of third stage and immediate essential newborn care</td>
</tr>
<tr>
<td>Perineal/episiotomy repair</td>
<td>Post partum care</td>
</tr>
<tr>
<td>Breech delivery</td>
<td></td>
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<tr>
<td>Vacuum extraction</td>
<td></td>
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<tr>
<td>Management of severe pre-eclampsia/eclampsia</td>
<td></td>
</tr>
<tr>
<td>Bimanual compression of the uterus</td>
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<tr>
<td>Compression of the abdominal aorta</td>
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<td>Manual removal of the placenta</td>
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<td>Managing cord prolapse</td>
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</table>
## CASE STUDY 1

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1.</td>
<td>Client’s/Patient’s Initials:</td>
</tr>
<tr>
<td>2.</td>
<td>Hospital Record Number:</td>
</tr>
<tr>
<td>3.</td>
<td>Age:</td>
</tr>
<tr>
<td>4.</td>
<td>Presenting Symptom(s)/Sign(s):</td>
</tr>
<tr>
<td>5.</td>
<td>Assessment Findings (history, physical examination, screening procedures/laboratory tests):</td>
</tr>
<tr>
<td>6.</td>
<td>Diagnosis (identification of problems/needs):</td>
</tr>
<tr>
<td>7.</td>
<td>Care Provision (Planning and Intervention):</td>
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<tr>
<td>8.</td>
<td>Evaluation and Ongoing Care:</td>
</tr>
</tbody>
</table>
### CASE STUDY 2

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<table>
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<tbody>
<tr>
<td><strong>1. Client’s/Patient’s Initials:</strong></td>
<td><strong>5. Assessment Findings (history, physical examination, screening procedures/laboratory tests):</strong></td>
</tr>
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<tr>
<td><strong>4. Presenting Symptom(s)/Sign(s):</strong></td>
<td><strong>8. Evaluation and Ongoing Care:</strong></td>
</tr>
</tbody>
</table>
LEARNING TOOLS
ROLE PLAY 1:
COMMUNICATING ABOUT A WOMAN’S RIGHT TO SAFE MOTHERHOOD

DIRECTIONS

The teacher will select three learners to perform the following roles: a skilled provider, a woman seeking information about the services available at the basic health center, and the woman’s mother. The three learners participating in the role play should take a few minutes to read the background information provided below and to prepare for the role play. The observers in the group should also read the background information so that they can participate in the small group discussion following the role play.

The purpose of the role play is to provide an opportunity for learners to appreciate the importance of good communication when providing information to women about available health care and their sexual and reproductive rights.

PARTICIPANT ROLES

Provider: The provider is an experienced community midwife at the basic health center who has good communication skills.

Kamila: Kamila is a 28-year-old woman; she has 4 living children, she is now 4 months pregnant; she had one baby die shortly after birth. Her sister died in childbirth last year.

Kamila’s mother: Kamila’s mother is 52 years old. She has 8 living children, she had 2 still births, and had one child die when she was 1 month old. One of her daughters died in childbirth last year.

SITUATION

Kamila has come to the health center with her mother. Kamila’s mother and grandmother helped her to deliver each of her babies at home. Kamila has been to the health center once before: she brought her 5-year-old son to the health center when he had pneumonia last year. The women are interested in learning more about the care for women that is available at the health center because a relative delivered her baby at the health center 6 months ago. Kamila is nervous about her current pregnancy because her sister died in childbirth last year.

FOCUS OF THE ROLE PLAY

The focus of the role play is the interaction between the midwife, Kamila and Kamila’s mother. The midwife should:

• Be friendly and reassuring;
• Assess Kamila’s knowledge about the role of the midwife and the services available for women at the health center;
• Describe the role of the midwife to the women;
• Briefly explain what services are available for women at the health center;
• Encourage the women to ask questions and address the questions that are asked;
• Discuss safe motherhood and a woman’s right to have safe health care.

Kamila and her mother should ask questions and express concerns until the midwife has provided them with enough information so that they understand the role of the midwife and the care available at the health center.

DISCUSSION QUESTIONS

The teacher should use the following questions to facilitate discussion after the role play:

1. How did the midwife approach Kamila and her mother?
2. Did the midwife give Kamila and her mother enough information about the role of the midwife? About the health center? About her right to safe motherhood?
3. How did Kamila and her mother respond to the midwife?
4. What did the midwife do to demonstrate emotional support and reassurance during her interaction with Kamila and her mother? Were the midwife’s explanations and reassurance effective?
Session: Interpersonal Communication (IPC)
Skills for Effective Communications with Communities

SESSION OBJECTIVES

At the end of the session participants will be able to:

- Define interpersonal communication (IPC)
- Explain the IPC pyramid
- Describe why active listening is important for effective communication
- List five non verbal skills required for active listening
- List three verbal skills required for active listening
- Describe the importance of short, simple and sensible messages for effective communication
- Explain the importance of using different visual aids for effective communication

- **Interpersonal Communication (IPC):** Person-to-person communication, verbal and non-verbal exchange that involves sharing information and feelings between individuals or in a small group. It is face to face, and all parties involved are senders and receivers at the same time (two way communication process) on a particular topic for establishing trusting relationships.

CHARACTERISTICS OF INTERPERSONAL COMMUNICATION

Interpersonal communication is a skill we use every day; at work, with our families, with our friends and most importantly with our clients. We often think of it in terms of knowledge exchange, but there is much more happening than pure information sharing. Interpersonal communication is not merely exchange of information as most people think of it.

Interpersonal communication has some basic elements which can be divided into three main areas forming a pyramid. Until and unless those elements that are present at the **foundation** of the pyramid are satisfied we cannot make progress in the process of interpersonal communication any further. When the elements at the foundation are satisfied then we can proceed to the next (upper) area of interacting with each other and only after satisfying the elements of **interaction** then only can information, ideas, emotions be exchanged with each other. Therefore we should not merely take interpersonal communication as exchange of ideas, information and emotions.

**Foundational elements (Respect, values, non-verbal behaviors, being non judgmental)**

For any interaction between two persons to be meaningful, there has to respect amongst the two and the interaction is generally guided by the **values** of the two persons. The **non-verbal behavior** that is shared helps to guide the course of the interaction. For e.g., if two people do not have any respect for each other, then the interaction between the two will not be meaningful. If the two people have different sets of values, then it may be difficult for them to come to an understanding. If a person approaches another to have a conversation, and if the other person is in an angry mood, and displays utter displeasure at the person approaching, it is unlikely that the person will start a conversation. Unless a person is satisfied that non-verbal behavior of another person is conducive, the person may not start an interaction.
Interaction (verbal reassurances, two way communication and feed back)
It is only after this foundation is laid that the interaction between people will begin. During an interaction, the elements of importance are the verbal reassurance between the people interacting. For e.g., imagine you are talking to someone on the telephone. If the person at the other end does not respond to you in any way, you will not be reassured that the person is listening to or understanding what you are saying. At this juncture, you are likely to keep on saying, “Hello... Hello... Are you hearing me?” Thus two-way listening, involvement and feedback are the essential components of a successful interaction.

Knowledge (ideas, emotions, information, experience)
Only after a successful interaction has been established will knowledge become of importance in IPC. Sharing of ideas, experiences and information only happens after the foundation has been laid and interaction established. If we think of ourselves as well educated and literate people, consider the communities members illiterate and thus pay no respect to them then all the knowledge that we share with them will fall on their deaf ears and will have no net effect. For example; People taking child with Jaundice to Mullah is a common practice in Afghanistan. Compare Mullah’s knowledge about Jaundice and Doctor’s knowledge about all types of Hepatitis(A,B,C,D,E) but refer to pyramid what elements does Mullah have more or respect more as compared to a doctor.

From the above discussion of the characteristics of interpersonal communication we can say that if a person is exhibiting no pleasure in his/her face and unacceptable behavior physically and also he has lack of verbal interaction skills but at the other hand he is so expert in his professional life he is very weak from IPC perspective as he has the knowledge but not the skills to transfer the knowledge to the others, meanwhile if another person is an expert as well as very good in interaction but has poor non verbal communication skills, he will be able to transfer knowledge but cannot get the acceptance and confidence from the others, thus he/she does nothing in making people change their behaviors

ACTIVE LISTENING
During interactions we should be good listeners. Listening is as important as sharing information. During health shura meetings, we are used to providing people with information; it may be difficult to remember that it is important to listen. Through listening to community members you can find out information you need to assist them with problems, and help them to make decisions. When listening to someone, listen actively.

Active listening is equal to respect given to someone. We cannot measure respect but from communication perspective if we listening to someone then we are respecting him/her and if are not listening to someone while interacting then we not respect her/him. Relate active listening to IPC pyramid and the respect (element) present in the foundation of the pyramid.

Active listening: Active listening is sensing the verbal component of the message and paying attention to the non verbal component by pay attention to the sender and interpreting it and giving meaningful feedback. Or in short we can say “Active listening is hearing with ears and eye” and hearing is just sensing the sounds with ears.

Hearing: Hearing is a passive process of just sensing the verbal component of a message and sending it to the auditory center of the brain.
Non Verbal skills required for Active listening: The following five non verbal skills are required for active listening; so while interacting with others we should pay attention if we have got these skills and using them while interacting with them. **(ROLES in short form)**

1. Relax
2. Open up
3. Lean forward
4. Eye contact
5. Smile / head nodding

Verbal skills required for active listening: The following verbal skills are required for active listening; so while interacting with others we should pay attention if we have got these skills and using them while interacting with them.

1. Acknowledge and reflect feelings
2. Paraphrasing/Summarizing
3. Asking questions

Acknowledge and Reflect feelings: Acknowledge both the verbal and non verbal feelings of the people with whom we are interacting and then reflecting it towards them. Reflecting relays back emotions and key feelings that you have observed. When you reflect feelings, you can add to the paraphrase those affective or emotional words that tune into the person's emotional experience. Reflecting focuses on acknowledging how a person feels and showing that you understand his/her needs and concerns. When a person says something, repeat using her/his own words what s/he just said and stop there. **It is said that a good communicators should be like a mirror. Whatever the feelings of the people are, they should acknowledge them and reflect them back to them for getting the trust of the people.**

- This can enable you to know how other people are feeling and also make that person attentive towards his/her feelings so that he/she can be able to give a better description of his/her condition.

- During the community interactions when you are explaining something to the communities and the community member’s non verbal expressions says that he/she has become confused so by acknowledging and reflect feelings you can ask relevant questions and explain the matter in more simple and understandable way.

Reflection helps the provider check whether the emotions observed are correct. This helps to show that do you have empathy and respect for them and their feelings

**PARAPHRASING:**

Repeating back what you heard someone say, in a short form. To make sure you understood him/her, to show him/her you are listening and to help him/her clarify his/her feelings. This is most needed when trying to get information from the community members.

Misunderstanding can happen very easily when two people discuss something. A community member may tell you something that you understand in quite a different way from the way he/she meant it. To prevent misunderstanding when listening to a community problem or when sharing information with a community member, it is useful to summarize or paraphrase what has been said.
Paraphrasing Involves:
1. A sentence stem such as: you appear to be saying... or what I hear you saying is...
2. Key descriptors and concepts used to describe the situation or person. Use the community member’s own words for the most important things.
3. The essence of what the community member has said in summarized form.
4. A check for accuracy. Am I hearing you correctly?

Example:

Community member: I don’t know what the matter is. A lot of children are dying in our village.
Provider: You’re concerned about large number of child deaths and you’re not sure why, is that right?

Paraphrasing is concerned with interpreting back to other person the essence of what has been said.

SUMMARIZING

Summarizing is similar to paraphrasing except that a longer time period and more information are involved. Summarizing may be used to begin or end an interview, to transition to a new topic, or to provide clarity in lengthy and complex issues or statements. It recaps what has been said.

Example of summarizing at the beginning: “At our last meeting we decided that you will discuss with other community members regarding, the use of EmONC services as a life saving services once complications have occurred and today you here again so what was the result of you discussion”

Example of summarizing at the end:

Client: “I am terribly concerned over my wife. She has this feeling she has to get out of the house and see the world and get a job. I am the breadwinner, and I imagine I have a good income. The children view Amina as a perfect mother and I do too. But last night, we really saw the problem differently and had a terrible argument.”

Provider: “Let me see if I can visualize the situation. You are concerned over your wife who wants to work even though you have a good income, and it resulted in a terrible argument. Is that how you see it?”

TYPES OF QUESTIONS AND THEIR USAGE

The following are the two types of questions:

1. Open-ended: It helps the provider get more information about the client. These are known as “W” and “H” i.e. the questions which starts with what, why, when, who, where and how. These questions allow the community members to describe and reveal information. The community members can take the lead by choosing how and where the answer will go.

2. Closed-ended: Close-ended questions do not invite elaboration but a specific response. They result in yes, no, or 1-2 word answers. They are useful in gathering factual information but not creating a comfortable environment in which true communication and decision making
can occur. By using a series of closed questions, you can control the interview. The community members will only reveal information on the specific question asked.

**Importance of Using Open-Ended Questions**

- Open-ended questions allow others to express her thoughts and feelings with their **OWN words**, not merely in response to your closed-ended questions.
- They encourage others to make positive decisions about their problem and their solutions.
- Using open-ended questions to enhance good interpersonal communication is not as easy as it sounds. It takes practice to communicate effectively with others.

**ADVANTAGES**

Makes the health worker’s job easier because:

- They will understand the community needs more clearly and can provide information that is appropriate to that community unique situation.
- The community members will not repeatedly seek attention from the health worker if they get appropriate answers to their questions.
- By giving the community members the information they need, the community members will gain some control over their situation and be able to make decisions.
Notes:

We should always **KISSS** our messages before sending them towards others in community interactions.

**KISSS** stands for Keep It (your messages) **Short, Simple and Sensible**.

**Short** means that message should not be lengthy and should to the point.

**Simple** means that the message should be delivered in local terminologies and avoid medical jargons.

**Sensible** means that the values, interest and awareness level of the clients should be kept in mind and then frame the message accordingly.

*It is important to note that if the message sent towards a person is personalized, well timed and repeated it will become a part of his/her memory and the chances of acting accordingly increases.*
CASE STUDY 1:
VAGINAL BLEEDING IN EARLY PREGNANCY

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 has developed.

CASE STUDY

Basri is 20 years old. She came to the health center 2 days ago with irregular vaginal bleeding and abdominal and pelvic pain. Symptoms of early pregnancy were detected and confirmed with a pregnancy test. Basri was advised to avoid strenuous activity and sexual intercourse and return immediately if her symptoms persisted. Basri returns to the health center today and reports that irregular vaginal bleeding has continued and she now has acute abdominal pain that started 2 hours ago.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Basri’s physical examination will help you make a diagnosis, and why?

3. What screening procedures will you include (if available) in your assessment of Basri, and why?

DIAGNOSIS (Identification of Problems/Needs)

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

• Basri’s pulse rate is 130 beats/minute and weak, her blood pressure is 85/60 mm Hg, her respiration rate is 20 breaths/minute and her temperature is 36.8º C.

• Her skin is pale and sweaty.

• Basri has acute abdominal and pelvic pain, her abdomen is tense and she has rebound tenderness.

• She has light vaginal bleeding and the cervix is closed.

4. Based on these findings, what is Basri’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Basri, and why?
EVALUATION

- Basri has recovered well from surgery.
- She is now ready to be discharged; however, her hemoglobin is 9 g/dL.
- She has indicated that she would like to become pregnant again, but not for at least a year.

6. Based on these findings, what is your continuing plan of care for Basri, and why?
SKILLS PRACTICE SESSION 1:
POSTABORTION CARE (MANUAL VACUUM ASPIRATION [MVA]) AND
POSTABORTION FAMILY PLANNING COUNSELING

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
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</table>
| The purpose of this activity is to enable participants to practice manual vacuum aspiration, achieve competency in the skills required and develop skills in postabortion family planning counseling. | This activity should be conducted in a simulated setting, using the appropriate models. | The following equipment or representations thereof:  
- Pelvic model  
- High-level disinfected or sterile surgical gloves  
- Personal protective barriers  
- MVA syringes and cannula  
- Vaginal speculum  
- Single-toothed tenaculum or vulsellum forceps  
- Samples contraceptives  
- IEC materials for FP |
| Participants should review Checklist 1a before beginning the activity and Checklist 1b. | | Checklist 1a: Postabortion Care (Manual Vacuum Aspiration [MVA])  
Checklist 1b: Postabortion Family Planning Counseling  
Checklist 1a: Postabortion Care (Manual Vacuum Aspiration [MVA]) |
<p>| The trainer should demonstrate the preliminary steps (medical evaluation, explaining the procedure, pelvic examination), followed by the steps in the MVA procedure. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 1a. | | |</p>
<table>
<thead>
<tr>
<th>PURPOSE</th>
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<th>RESOURCES</th>
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<tbody>
<tr>
<td>The trainer should then demonstrate the steps/tasks in providing postabortion family planning counseling. 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; one participant should take the role of the postabortion woman, the second should practice counseling skills, and the third should observe performance using Checklist 1b. Participants should then reverse roles until each has had an opportunity to practice counseling skills.</td>
<td>Checklist 1b: Postabortion Family Planning Counseling</td>
<td></td>
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<tr>
<td>Participants should be able to perform the steps/tasks in Checklist 1a and Checklist 1b before skill competency is assessed by the trainer in the simulated setting, using Checklist 1a and Checklist 1b. Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 1a and Checklist 1b.</td>
<td>Checklist 1a: Postabortion Care (Manual Vacuum Aspiration [MVA]) Checklist 1b: Postabortion Family Planning Counseling</td>
<td></td>
</tr>
<tr>
<td>Checklist 1a: Postabortion Care (Manual Vacuum Aspiration [MVA])</td>
<td>Checklist 1b: Postabortion Family Planning Counseling</td>
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</table>

\[1\] If patients are not available at clinical sites for participants to practice postabortion care in relation to obstetric emergencies, the skills should be taught, practiced and assessed in a simulated setting.
CHECKLIST 1A:
POSTABORTION CARE MANUAL VACUUM ASPIRATION [MVA]

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

Participant/Student: ___________________________________________ Date Observed: _________________

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
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<tbody>
<tr>
<td>INITIAL ASSESSMENT</td>
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<tr>
<td>1. Greet the woman respectfully and with kindness.</td>
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</tr>
<tr>
<td>3. If any complications are identified, stabilize patient and transfer, if necessary.</td>
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<tr>
<td>MEDICAL EVALUATION</td>
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</tr>
<tr>
<td>1. Take a reproductive health history.</td>
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<tr>
<td>2. Perform limited physical (heart, lungs and abdomen) and pelvic examinations.</td>
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<tr>
<td>3. Perform indicated laboratory tests.</td>
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<tr>
<td>4. Give the woman information about her condition and what to expect.</td>
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<tr>
<td>5. Discuss her reproductive goals, as appropriate.</td>
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<tr>
<td>6. If she is considering an IUD she should be fully counseled regarding IUD use.</td>
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<tr>
<td>GETTING READY</td>
<td></td>
</tr>
<tr>
<td>1. Tell the woman (and her support person) what is going to be done, listen to her and respond attentively to her questions and concerns.</td>
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<tr>
<td>2. Provide continual emotional support and reassurance, as feasible.</td>
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<tr>
<td>3. Tell her she may feel discomfort during some of the steps of the procedure</td>
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<tr>
<td>4. Give Paracetamol 1 G (2 tablets) by mouth to the woman 30 minutes before the procedure.</td>
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</tbody>
</table>
### Checklist for Postabortion Care (MVA)
(Many of the following steps/tasks should be performed simultaneously.)

<table>
<thead>
<tr>
<th>STEP/TASK</th>
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</thead>
<tbody>
<tr>
<td>5. Ask about allergies to antiseptics and anesthetics.</td>
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</tr>
<tr>
<td>6. Determine that required sterile or high-level disinfected instruments are present.</td>
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<tr>
<td>7. Make sure that the appropriate size cannula and adapters are available.</td>
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<tr>
<td>8. Check the MVA syringe and charge it (establish vacuum).</td>
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</tr>
<tr>
<td>9. Check that patient has recently emptied her bladder or catheterize if necessary.</td>
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</tr>
<tr>
<td>10. Check that patient has thoroughly washed and rinsed her perineal area.</td>
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<tr>
<td>11. Put on personal protective barriers.</td>
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<tr>
<td>12. Wash hands thoroughly and put on high-level disinfected or sterile surgical gloves.</td>
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</tr>
<tr>
<td>13. Arrange sterile or high-level disinfected instruments on sterile tray or in high-level disinfected container.</td>
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</tbody>
</table>

#### Preprocedure Tasks

1. Give oxytocin 10 units IM or ergometrine 0.2 mg IM.
2. Perform bimanual pelvic examination, checking the size and position of uterus and degree of cervical dilation.
3. Place sterile drapes – one under buttocks and one on abdomen.
4. Insert the speculum and remove blood or tissue from vagina using sponge forceps and gauze.
5. Apply antiseptic solution to cervix and vagina two times using gauze or cotton sponge.
6. Remove any products of conception (POC) from the cervical os and check cervix for tears.

#### MVA Procedure

1. Inform woman of each step in the procedure prior to performing it.
2. Apply traction on the cervix to straighten the cervical canal and uterine cavity.
3. Administer paracervical block (if necessary) – see addendum.
4. If necessary, dilate cervix using progressively larger cannula.
5. While holding the cervix steady, push the selected cannula gently and slowly into the uterine cavity until it just touches the fundus (not more than 10 cm). Then withdraw the cannula slightly away from the fundus.
6. Attach the prepared syringe to the cannula by holding the cannula in one hand and the tenaculum and syringe in the other. Make sure cannula does not move forward as the syringe is attached.
**CHECKLIST FOR POSTABORTION CARE (MVA)**
*(Many of the following steps/tasks should be performed simultaneously.)*

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Release the pinch valve(s) on the syringe to transfer the vacuum through the cannula to the uterine cavity.</td>
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</tr>
<tr>
<td>7a. Evacuate any remaining contents of the uterine cavity by rotating the cannula and syringe from 10 to 2 o’clock and moving the cannula gently and slowly back and forth within the uterus.</td>
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<tr>
<td>7b. If the syringe becomes half full before the procedure is complete, detach the cannula from the syringe. Remove only the syringe, leaving the cannula in place.</td>
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<tr>
<td>7c. Push the plunger to empty POC into the strainer.</td>
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<tr>
<td>7d. Recharge syringe, attach to cannula and release pinch valve(s).</td>
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<tr>
<td>8. Check for signs of completion (red or pink foam, no more tissue in cannula, a “gritty” sensation and uterus contracts around the cannula). Withdraw the cannula and MVA syringe gently.</td>
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<tr>
<td>9. Remove cannula from the MVA syringe and push the plunger to empty POC into the strainer.</td>
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</tr>
<tr>
<td>10. Remove tenaculum or forceps from the cervix before removing the speculum.</td>
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<tr>
<td>11. Perform bimanual examination to check size and firmness of uterus.</td>
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<tr>
<td>12. Rinse the tissue with water or saline, if necessary.</td>
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<tr>
<td>13. Quickly inspect the tissue removed from the uterus to be sure the uterus is completely evacuated.</td>
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<tr>
<td>14. If no POC are seen, reassess situation to be sure it is not an ectopic pregnancy.</td>
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<tr>
<td>15. Gently insert speculum and check for bleeding.</td>
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<tr>
<td>16. If uterus is still soft or bleeding persists, repeat steps 3–10.</td>
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</tbody>
</table>

**POST-PROCEDURE TASKS**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
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<tbody>
<tr>
<td>1. Before removing gloves, dispose of waste materials in a leakproof container or plastic bag.</td>
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<tr>
<td>2. Place all instruments in 0.5% chlorine solution for 10 minutes for decontamination.</td>
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<tr>
<td>3. Dispose of needle and syringe in a puncture-proof container.</td>
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<tr>
<td>4. Attach used cannula to MVA syringe and flush both with 0.5% chlorine solution.</td>
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</tr>
<tr>
<td>5. Detach cannula from syringe and soak them in 0.5% chlorine solution for 10 minutes for decontamination.</td>
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<tr>
<td>6. Empty POC into utility sink, flushable toilet, latrine or container with tight-fitting lid.</td>
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<tr>
<td>STEP/TASK</td>
<td>CASES</td>
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<tr>
<td>7. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning inside out and place them in a leakproof container or plastic bag.</td>
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<tr>
<td>8. Wash and dry hands.</td>
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<tr>
<td>9. Allow the patient to rest comfortably for at least 30 minutes where her recovery can be monitored.</td>
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<tr>
<td>10. Check for bleeding and ensure that cramping has decreased before discharge.</td>
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<tr>
<td>11. Instruct patient regarding postabortion care and warning signs.</td>
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<tr>
<td>12. Tell her when to return if follow-up is needed and that she can return anytime she has concerns.</td>
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<tr>
<td>13. Discuss reproductive goals and, as appropriate, provide family planning.</td>
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<tr>
<td><strong>Addendum - Administering Paracervical Block</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Administering Paracervical Block</strong> (when necessary)</td>
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</tr>
<tr>
<td>15. Prepare 20 mL 0.5% lignocaine solution without adrenaline.</td>
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<tr>
<td>16. Draw 10 mL of 0.5% lignocaine solution into a syringe.</td>
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<tr>
<td>17. If using a single-toothed tenaculum, inject 1 mL of lignocaine solution into the anterior or posterior lip of the cervix (the 10 o’clock or 12 o’clock position is usually used).</td>
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</tr>
<tr>
<td>18. Gently grasp anterior lip of the cervix with a single-toothed tenaculum or vulsellum forceps (preferably, use ring or sponge forceps if incomplete abortion).</td>
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<tr>
<td>19. With tenaculum or vulsellum forceps on the cervix, use slight traction and movement to help identify the area between the smooth cervical epithelium and the vaginal tissue.</td>
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<tr>
<td>20. Insert the needle just under the epithelium and aspirate by drawing the plunger back slightly to make sure the needle is not penetrating a blood vessel.</td>
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<tr>
<td>21. Inject about 2 mL of a 0.5% lignocaine solution just under the epithelium, not deeper than 3 mm, at 3, 5, 7 and 9 o’clock.</td>
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<tr>
<td>22. Wait 2 minutes and then pinch the cervix with the forceps. (If the woman feels the pinch, wait 2 more minutes and then retest.)</td>
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</tbody>
</table>
CHECKLIST 1B:
POSTABORTION FAMILY PLANNING COUNSELING

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

| Participant/Student: ____________________________ Date Observed: ______________ |

### CHECKLIST FOR POSTABORTION FAMILY PLANNING COUNSELING
(Many of the following steps/tasks should be performed simultaneously.)

<table>
<thead>
<tr>
<th>STEP/TASK</th>
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</thead>
<tbody>
<tr>
<td>INITIAL INTERVIEW</td>
<td></td>
</tr>
<tr>
<td>1. Treat the woman respectfully and with kindness.</td>
<td></td>
</tr>
<tr>
<td>2. Assess whether counseling is appropriate at this time (if not, arrange for her to be counseled at another time and be sure she understands that she can become pregnant before her next menses).</td>
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<tr>
<td>3. Assure necessary privacy and confidentiality.</td>
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<tr>
<td>4. Obtain biographic information (name, address, etc.).</td>
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<tr>
<td>5. Ask if she was using contraception before she became pregnant. If she was, find out if she:</td>
<td></td>
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<tr>
<td>• Used the method correctly</td>
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<tr>
<td>• Discontinued use</td>
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<tr>
<td>• Had any trouble using the method</td>
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<tr>
<td>• Has any concerns about the method</td>
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<tr>
<td>6. Provide general information about family planning.</td>
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<tr>
<td>7. Explore any attitudes or religious beliefs that either favor or rule out one or more methods.</td>
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<tr>
<td>8. Give the woman information about the contraceptive choices available and the benefits and limitations of each:</td>
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<tr>
<td>• Show where and how each is used</td>
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<tr>
<td>• Explain how the method works and its effectiveness</td>
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<tr>
<td>• Explain possible side effects and other health problems</td>
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</tr>
<tr>
<td>• Explain the common side effects</td>
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</tr>
<tr>
<td>9. Discuss the woman’s needs, concerns and fears in a thorough and sympathetic manner.</td>
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Basic EmONC Course

Checklist 1B: Postabortion Family Planning Counseling

2-17
### Checklist for Postabortion Family Planning Counseling

(Many of the following steps/tasks should be performed simultaneously.)

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Help the woman begin to choose an appropriate method.</td>
<td></td>
</tr>
<tr>
<td><strong>SCREENING</strong></td>
<td></td>
</tr>
<tr>
<td>1. Screen the woman carefully to make sure there is no medical condition</td>
<td></td>
</tr>
<tr>
<td>that would be a problem (complete Screening Checklist).</td>
<td></td>
</tr>
<tr>
<td>2. Explain potential side effects and make sure that each is fully</td>
<td></td>
</tr>
<tr>
<td>understood.</td>
<td></td>
</tr>
<tr>
<td>3. Perform further evaluation (physical examination), if indicated.</td>
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<tr>
<td>(Nonmedical counselors must refer woman for further evaluation.)</td>
<td></td>
</tr>
<tr>
<td>4. Discuss what to do if the woman experiences any side effects or</td>
<td></td>
</tr>
<tr>
<td>problems.</td>
<td></td>
</tr>
<tr>
<td>5. Provide follow-up visit instructions.</td>
<td></td>
</tr>
<tr>
<td>6. Assure woman she can return to the same clinic at any time to receive</td>
<td></td>
</tr>
<tr>
<td>advice or medical attention.</td>
<td></td>
</tr>
<tr>
<td>7. Ask the woman to repeat instructions</td>
<td></td>
</tr>
<tr>
<td>8. Answer the woman’s questions.</td>
<td></td>
</tr>
<tr>
<td>9. Record relevant information in patient records.</td>
<td></td>
</tr>
</tbody>
</table>

**SCREENING CHECKLIST TO INCLUDE:**

- HISTORY OF CARDIO VASCULAR DISEASE E.G., HYPERTENSION
- SMOKING
- HEADACHES
- DEPRESSIVE DISORDERS
- SEXUALLY TRANSMITTED INFECTIONS
- DIABETES
**SKILLS PRACTICE SESSION 2:**  
**ADULT RESUSCITATION AND MANAGEMENT OF SHOCK**

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice conducting adult resuscitation and management of shock in relation to obstetric emergencies and achieve competency in the skills required. | This activity should be conducted in a simulated setting, with a fellow participant role-playing as a patient. | • Equipment for starting an IV infusion  
• Needles and syringes  
• Equipment for bladder catheterization  
• Sphygmomanometer and stethoscope  
• Self-inflating bag and mask, oxygen cylinder, gauge  
• New examination or high-level disinfected surgical gloves |
| Participants should review Checklist 2 before beginning the activity. | | Checklist 2: Adult Resuscitation and Management of Shock |
| The trainer should demonstrate the steps/tasks in assisting the procedure of adult resuscitation and management of shock. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 2. | | Checklist 2: Adult Resuscitation and Management of Shock |
| Participants should be able to perform the steps/tasks relevant to adult resuscitation and management of shock before skill competency is assessed by the trainer in the simulated setting, using Checklist 2. | | Checklist 2: Adult Resuscitation and Management of Shock |
| Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 2. | | Checklist 2: Adult Resuscitation and Management of Shock |
**CHECKLIST 2:**
**ADULT RESUSCITATION AND MANAGEMENT OF SHOCK**

Place a “✓” in case box if step/task is performed **satisfactorily**, an “X” 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

Participant/Student: ___________________________ Date Observed: ______________

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Shout for help.</td>
<td></td>
</tr>
<tr>
<td>2. Greet the woman respectfully and with kindness.</td>
<td></td>
</tr>
<tr>
<td>3. If the woman is conscious and responsive, tell the woman (and her support person) what is going to be done, listen to her, and respond attentively to her questions and concerns.</td>
<td></td>
</tr>
<tr>
<td>4. Provide continual emotional support and reassurance, as feasible.</td>
<td></td>
</tr>
<tr>
<td><strong>IMMEDIATE MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Check the woman’s vital signs:</td>
<td></td>
</tr>
<tr>
<td>• Temperature</td>
<td></td>
</tr>
<tr>
<td>• Pulse</td>
<td></td>
</tr>
<tr>
<td>• Blood pressure</td>
<td></td>
</tr>
<tr>
<td>• Respiration</td>
<td></td>
</tr>
<tr>
<td>2. Turn the woman onto her side and ensure that her airway is open. If the woman is not breathing, begin resuscitation measures.</td>
<td></td>
</tr>
<tr>
<td>3. Give oxygen at 6–8 L/minute by face mask or nasal cannula.</td>
<td></td>
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<tr>
<td>4. Cover the woman with a blanket to ensure warmth.</td>
<td></td>
</tr>
<tr>
<td>5. Elevate the woman’s legs—if possible, by raising the foot of the bed.</td>
<td></td>
</tr>
<tr>
<td><strong>BLOOD COLLECTION, FLUID REPLACEMENT AND BLADDER CATHETERIZATION</strong></td>
<td></td>
</tr>
<tr>
<td>1. Wash hands thoroughly and dry.</td>
<td></td>
</tr>
<tr>
<td>2. Connect IV tubing to a 1 L container of normal saline or Ringer’s lactate.</td>
<td></td>
</tr>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>3. Run fluid through tubing.</td>
<td></td>
</tr>
<tr>
<td>4. Select a suitable site for infusion (e.g., back of hand or forearm).</td>
<td></td>
</tr>
<tr>
<td>5. Place a tourniquet around the woman’s upper arm.</td>
<td></td>
</tr>
<tr>
<td>6. Put on gloves.</td>
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</tr>
<tr>
<td>7. Clean skin with spirit.</td>
<td></td>
</tr>
<tr>
<td>8. Insert 16- or 18-gauge needle or cannula into the vein.</td>
<td></td>
</tr>
<tr>
<td>10. Detach syringe from needle or cannula and connect IV tubing.</td>
<td></td>
</tr>
<tr>
<td>11. Secure the needle or cannula with tape.</td>
<td></td>
</tr>
<tr>
<td>12. Adjust IV tubing to run fluid at a rapid rate to infuse 1 L in 15–20 minutes.</td>
<td></td>
</tr>
<tr>
<td>13. Place the blood drawn into a labeled test tube for hemoglobin and cross-matching.</td>
<td></td>
</tr>
<tr>
<td>14. Place 2 mL of blood into a small glass test tube (approximately 10 mm x 75 mm) to do a bedside clotting test:</td>
<td></td>
</tr>
<tr>
<td>• Hold the test tube in your closed fist to keep it warm.</td>
<td></td>
</tr>
<tr>
<td>• After 4 minutes, tip the tube slowly to see if a clot is forming.</td>
<td></td>
</tr>
<tr>
<td>• Tip it again every minute until the blood clots and the tube can be turned upside down.</td>
<td></td>
</tr>
<tr>
<td>• If a clot fails to form or a soft clot forms that breaks down easily, coagulopathy is possible.</td>
<td></td>
</tr>
<tr>
<td>15. Before removing gloves, dispose of waste materials in a leakproof container or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>16. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning them inside out and place them in a leakproof container or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>17. Use antiseptic handrub or wash hands thoroughly.</td>
<td></td>
</tr>
</tbody>
</table>

**BLADDER CATHETERIZATION**

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Put new examination or high-level disinfected surgical gloves on both hands.</td>
<td></td>
</tr>
<tr>
<td>2. Explains to the woman and clean the external genitalia.</td>
<td></td>
</tr>
<tr>
<td>3. Insert catheter into the urethral orifice and allow urine to drain into a clean receptacle, and measure and record amount.</td>
<td></td>
</tr>
<tr>
<td>4. Secure catheter and attach it to urine drainage bag.</td>
<td></td>
</tr>
</tbody>
</table>
## Checklist for Adult Resuscitation and Management of Shock

(Many of the following steps/tasks should be performed simultaneously.)

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning them inside out and place them in a leakproof container or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>6. Use antiseptic handrub or wash hands thoroughly and dry.</td>
<td></td>
</tr>
</tbody>
</table>

### Reassessment and Further Management

1. Reassess the woman’s response to IV fluids within 15 minutes for signs of improvement:
   - Stabilizing pulse (90 beats/minute or less)
   - Increasing systolic blood pressure (100 mm Hg or more)
   - Improving mental status (less confusion or anxiety)
   - Increasing urine output (30 mL/hour or more)

2. If the woman’s condition improves:
   - Adjust the rate of IV infusion to 1 L in 6 hours.
   - Continue management for underlying cause of shock.

3. If the woman’s condition fails to improve:
   - Infuse normal saline rapidly until her condition improves.
   - Continue oxygen at 6–8 L/minute.
   - Continue to monitor vital signs every 15 minutes and intake and output every hour.
   - Arrange for additional laboratory tests.

4. Check for bleeding. If heavy bleeding is seen, take steps to stop the bleeding and transfuse blood, if necessary.

5. Perform the necessary history, physical examination and tests to determine cause of shock if not already known.

6. Record all vital signs fluids and any drugs given.

7. Make arrangements to refer the woman to higher level of care if required.

### Skill/Activity Performed Satisfactorily
EXERCISE 2:
USING THE PARTOGRAPH

PURPOSE
The purpose of this exercise is to enable learners to use the partograph to manage labor.

INSTRUCTIONS
The teacher should review the partograph form with learners before beginning the exercise.

Each learner should be given three blank partograph forms.

Case 1: The teacher should read each step to the class, plot the information on the poster-size laminated partograph, and ask the questions included in each of the steps. At the same time, learners should plot the information on one of their partograph forms.

Case 2: The teacher should read each step to the class and have learners plot the information on another of their partograph forms. The questions included in each step should be asked as they arise.

Case 3: The teacher should read each step to the class and have learners plot the information on the third of their partograph forms. The questions should then be asked when the partograph is completed.

Throughout the exercise, the teacher should ensure that learners have completed their partograph forms correctly.

The teacher should provide learners with the three completed partograph forms from the Answer Key and have them compare these with the partograph forms they have completed. The teacher should discuss and resolve any differences between the partographs completed by learners and those in the Answer Key.

RESOURCES
The following equipment or representations there of:
- Partograph forms (three for each learner)
- Poster-size laminated partograph
- Exercise: Using the Partograph Answer Key
CASE 1

STEP 1

- Mrs. A was admitted at 05.00 on 19.9.2003
- Membranes ruptured 04.00
- Gravida 3, Para 2+0
- Hospital number 7886
- On admission the fetal head was 4/5 palpable above the symphysis pubis and the cervix was 2 cm dilated

Q: What should be recorded on the partograph?

Note: Mrs. A. is not in active labor. Record only the details of her history, i.e., first 4 bullets, not the descent and cervical dilation.

STEP 2

- 09.00:
  - The fetal head is 3/5 palpable above the symphysis pubis
  - The cervix is 5 cm dilated

Q: What should you now record on the partograph?

Note: Mrs. A. is now in the active phase of labor. Plot this and the following information on the partograph:

- 3 contractions in 10 minutes, each lasting 20–40 seconds
- Fetal heart rate (FHR) 120
- Membranes ruptured, amniotic fluid clear
- Sutures of the skull bones are apposed
- Blood pressure 120/70 mmHg
- Temperature 36.8°C
- Pulse 80/minute
- Urine output 200 mL; negative protein and acetone

Q: What steps should be taken?

Q: What advice should be given?

Q: What do you expect to find at 13.00?
STEP 3

Plot the following information on the partograph:

<table>
<thead>
<tr>
<th>Time</th>
<th>FHR</th>
<th>Contractions</th>
<th>Pulse</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.30</td>
<td>120</td>
<td>3/10 each 30 seconds</td>
<td>80/minute</td>
<td></td>
</tr>
<tr>
<td>10.00</td>
<td>136</td>
<td>3/10 each 30 seconds</td>
<td>80/minute</td>
<td></td>
</tr>
<tr>
<td>10.30</td>
<td>140</td>
<td>3/10 each 35 seconds</td>
<td>88/minute</td>
<td>37°C</td>
</tr>
<tr>
<td>11.00</td>
<td>130</td>
<td>3/10 each 40 seconds</td>
<td>88/minute</td>
<td>37°C</td>
</tr>
<tr>
<td>11.30</td>
<td>136</td>
<td>4/10 each 40 seconds</td>
<td>84/minute</td>
<td>37°C</td>
</tr>
<tr>
<td>19.00</td>
<td>140</td>
<td>4/10 each 40 seconds</td>
<td>88/minute</td>
<td>37°C</td>
</tr>
<tr>
<td>19.30</td>
<td>136</td>
<td>4/10 each 45 seconds</td>
<td>84/minute</td>
<td></td>
</tr>
<tr>
<td>13.00</td>
<td>140</td>
<td>4/10 each 45 seconds</td>
<td>90/minute</td>
<td>37°C</td>
</tr>
<tr>
<td>13.20</td>
<td>140</td>
<td>4/10 each 45 seconds</td>
<td>90/minute</td>
<td>37°C</td>
</tr>
</tbody>
</table>

- 13.00:
  - The fetal head is 0/5 palpable above the symphysis pubis
  - The cervix is fully dilated
  - Amniotic fluid clear
  - Sutures apposed
  - Blood pressure 100/70 mmHg
  - Urine output 150 mL; negative protein and acetone

Q: What steps should be taken?

Q: What advice should be given?

Q: What do you expect to happen next?

STEP 4

Record the following information on the partograph:

- 13.20: Spontaneous birth of a live female infant weighing 2,850 g

Answer the following questions:

Q: How long was the active phase of the first stage of labor?

Q: How long was the second stage of labor?
CASE 2

STEP 1

- Mrs. B. was admitted at 10.00 on 19.9.2003
- Membranes intact
- Gravida 1, Para 0+0
- Hospital number 1443

Record the information above on the partograph, together with the following details:
- The fetal head is 5/5 palpable above the symphysis pubis
- The cervix is 4 cm dilated
- 2 contractions in 10 minutes, each lasting less than 20 seconds
- FHR 140
- Membranes intact
- Blood pressure 100/70 mmHg
- Temperature 36.2°C
- Pulse 80/minute
- Urine output 400 mL; negative protein and acetone

Q: What is your diagnosis?

Q: What action will you take?

STEP 2

Plot the following information on the partograph:

10.30  FHR 140, Contractions 2/10 each 15 sec, Pulse 90/minute
11.00  FHR 136, Contractions 2/10 each 15 sec, Pulse 88/minute
11.30  FHR 140, Contractions 2/10 each 20 sec, Pulse 84/minute
19.00  FHR 136, Contractions 2/10 each 15 sec, Pulse 88/minute, Temperature 36.2°C, Membranes intact

- 19.00:
  - The fetal head is 5/5 palpable above the symphysis pubis
  - The cervix is 4 cm dilated, membranes intact

Q: What is your diagnosis?

Q: What action will you take?
STEP 3

Plot the following information on the partograph:

19.30  FHR 136, Contractions 1/10 each 15 sec, Pulse 90/minute
13.00  FHR 140, Contractions 1/10 each 15 sec, Pulse 88/minute
13.30  FHR 140, Contractions 1/10 each 20 sec, Pulse 88/minute
14.00  FHR 136, Contractions 1/10 each 15 sec, Temperature 36.8°C, Blood pressure 100/70 mmHg

- 14:00:
  - The fetal head is 5/5 palpable above the symphysis pubis
  - Urine output 300 mL; negative protein and acetone

Q: What is your diagnosis?

Q: What will you do?

Plot the following information on the partograph:

- 14:00:
  - The cervix is 4 cm dilated, sutures apposed
  - Labor augmented with oxytocin 9.5 units in 500 mL IV fluid at 10 drops per minute (dpm)
  - Membranes artificially ruptured, clear fluid

STEP 4

Plot the following information on the partograph:

- 14.30:
  - 2 contractions in 10 minutes, each lasting 30 seconds
  - Infusion rate increased to 20 dpm
  - FHR 140, Pulse 90/minute

- 15.00:
  - 3 contractions in 10 minutes, each lasting 30 seconds
  - Infusion rate increased to 30 dpm
  - FHR 140, Pulse 90/minute

- 15:30:
  - 3 contractions in 10 minutes, each lasting 30 seconds
  - Infusion rate increased to 40 dpm
  - FHR 140, Pulse 88/minute

- 16.00:
  - Fetal head 2/5 palpable above the symphysis pubis
  - Cervix 6 cm dilated; sutures apposed
  - 3 contractions in 10 minutes, each lasting 30 seconds
  - Infusion rate increased to 50 dpm
  - FHR 144, Pulse 92/minute
  - Amniotic fluid clear
16.30:  
- 3 contractions in 10 minutes, each lasting 45 seconds  
- FHR 140, Pulse 90/minute  
- Infusion remains at 50 dpm

**Q: What steps would you take?**

**STEP 5:**

17.00  FHR 138, Pulse 92/minute, Contractions 3/10 each 40 sec, Maintain at 50 dpm  
17.30  FHR 140, Pulse 94/minute, Contractions 3/10 each 45 sec, Maintain at 50 dpm  
18.00  FHR 140, Pulse 96/minute, Contractions 4/10 each 50 sec, Maintain at 50 dpm  
18.30  FHR 144, Pulse 94/minute, Contractions 4/10 each 50 sec, Maintain at 50 dpm

**STEP 6**

Plot the following information on the partograph:

- 19.00:  
  - Fetal head 0/5 palpable above the symphysis pubis  
  - 4 contractions in 10 minutes, each lasting 50 seconds  
  - FHR 144, Pulse 90/minute  
  - Cervix fully dilated

**STEP 7**

Record the following information on the partograph:

- 19.30:  
  - 4 contractions in 10 minutes, each lasting 50 seconds  
  - FHR 142, Pulse 100/minute  

- 20.00:  
  - 4 contractions in 10 minutes, each lasting 50 seconds  
  - FHR 146, Pulse 110/minute

- 20.10:  
  - Spontaneous birth of a live male infant weighing 2,654 g

**Answer the following questions:**

**Q: How long was the active phase of the first stage of labor?**

**Q: How long was the second stage of labor?**

**Q: Why was labor augmented?**
CASE 3

STEP 1

- Mrs. C. was admitted at 10.00 on 19.9.2003
- Membranes ruptured 09.00
- Gravida 4, Para 3+0
- Hospital number 6639

Record the information above on the partograph, together with the following details:

- Fetal head 3/5 palpable above the symphysis pubis
- Cervix 4 cm dilated
- 3 contractions in 10 minutes, each lasting 30 seconds
- FHR 140
- Amniotic fluid clear
- Sutures apposed
- Blood pressure 120/70 mmHg
- Temperature 36.8°C
- Pulse 80/minute
- Urine output 200 mL; negative protein and acetone

STEP 2

Plot the following information in the partograph:

| Time  | FHR  | Contractions | Pulse | Other Details
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10.30</td>
<td>130</td>
<td>3/10 each 35 sec</td>
<td>80/minute</td>
<td></td>
</tr>
<tr>
<td>11.00</td>
<td>136</td>
<td>3/10 each 40 sec</td>
<td>90/minute</td>
<td></td>
</tr>
</tbody>
</table>
| 11.30 | 140  | 3/10 each 40 sec | 88/minute | Temperature 37°C, Head 3/5 palpable
| 19.00 | 140  | 3/10 each 40 sec | 90/minute, Temperature 37°C, Head 3/5 palpable
| 19.30 | 130  | 3/10 each 40 sec | 90/minute | 
| 13.00 | 130  | 3/10 each 45 sec | 88/minute | 
| 13.30 | 120  | 3/10 each 45 sec | 88/minute | 
| 14.00 | 130  | 4/10 each 45 sec | 90/minute, Temperature 37°C, Blood Pressure 100/70 mmHg

- 14:00:
  - Fetal head 3/5 palpable above the symphysis pubis
  - Cervix 6 cm dilated, amniotic fluid clear
  - Sutures overlapped but reducible

STEP 3

| Time  | FHR  | Contractions | Pulse | Other Details
|-------|------|--------------|-------|------------------|
| 14.30 | 120  | 4/10 each 40 sec | 90/minute | Clear fluid
| 15.00 | 120  | 4/10 each 40 sec | 88/minute, Blood-stained fluid
| 15.30 | 100  | 4/10 each 45 sec | 100/minute | 
| 16.00 | 90   | 4/10 each 50 sec | 100/minute, Temperature 37°C
| 16.30 | 96   | 4/10 each 50 sec | 100/minute |
17.00  FHR 90, Contractions 4/10 each 50 sec, Pulse 110/minute

- 17:00:
  - Fetal head 3/5 palpable above the symphysis pubis
  - Cervix 6 cm dilated
  - Amniotic fluid meconium stained
  - Sutures overlapped and not reducible
  - Urine output 100 mL; protein negative, acetone 1+

**STEP 4**

Record the following information on the partograph:

- Cesarean section at 17.30, live female infant with poor respiratory effort and weighing 4,850g

Answer the following questions:

**Q: What is the final diagnosis?**

**Q: What action was indicated at 14.00, and why?**

**Q: What action was indicated at 15.00, and why?**

**Q: At 17.00, a decision was taken to do a cesarean section, and this was rapidly done. Was this a correct action?**

**Q: What problems may be expected in the newborn?**
SKILLS PRACTICE SESSION 3: ASSESSMENT OF THE WOMAN IN LABOR

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice assessment of the woman in labor, including history and physical examination and achieve competency in the skills required. | This activity should be conducted in a simulated setting using the appropriate pelvic and fetal models. | • Childbirth simulator  
• Sphygmomanometer and stethoscope  
• Fetal stethoscope  
• Examination gloves  
• 0.5% chlorine solution and receptacle for decontamination  
• Leakproof container or plastic bag |

Participants should review the Checklist 3 before beginning the activity.

The trainer should demonstrate the steps/tasks in taking a history from the woman in labor 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 Checklist 3 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 a history from the woman in labor before progressing to physical examination of the woman in labor.

Checklist 3: Assessment of the Woman in Labor
### PURPOSE

See above.

### INSTRUCTIONS

The trainer should demonstrate the steps/tasks in physical examination of the woman in labor for participants. Under the guidance of the trainer, participants should then work in pairs and, using the childbirth simulator, practice the steps/tasks and observe each other’s performance; while one participant does the physical examination, the second participant should use the relevant section of Checklist 3 to observe performance. Participants should then reverse roles.

Participants should be able to perform all of the steps/tasks in Checklist 3 before skills competency is assessed in the simulated setting by the trainer, using Checklist 3.

Finally, following supervised practice at a clinical site, the trainer should assess the skills competency of each participant using Checklist 3.

### RESOURCES

- **Checklist 3: Assessment of the Woman in Labor**
CHECKLIST 3:
ASSESSMENT OF THE WOMAN IN LABOR

Place a “✓” in case box if step/task is performed **satisfactorily**, an “X” 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

Participant/Student: ____________________________ Date Observed: _______________

<p>| CHECKLIST FOR ASSESSMENT OF THE WOMAN IN LABOR |
| (Some of the following steps/tasks should be performed simultaneously) |
| STEP/TASK | CASES |
| <strong>GETTING READY</strong> |
| 1. Prepare the necessary equipment. |   |
| 2. Greet the woman respectfully and with kindness. |   |
| 3. Tell the woman (and her support person) what is going to be done, listen to her attentively and respond to her questions and concerns. |   |
| 4. Provide continual emotional support and reassurance, as possible. |   |
| <strong>HISTORY (Ask the following questions if the information is not available on the woman’s ANC record)</strong> |
| <strong>Personal Information</strong> |
| 1. What is your name, your age, and your address and phone number? |
|   - If the woman is less than 20 years of age, determine the circumstances surrounding the pregnancy (e.g. unprotected sex, sexual abuse, sexual exploitation, forced marriage, forced sex) |
| 2. How many previous pregnancies and births have you had? |   |
| 3. Do you have a complication readiness plan if there are any problems during labor or childbirth? |
|   - If Yes, confirm that arrangements have been made for all essential components of complication readiness. |
|   - If No, make arrangements for all essential components of complication readiness. |   |</p>
<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Are you having a particular problem at present? If Yes, find out what the problem is and ask the following additional questions:</td>
<td></td>
</tr>
<tr>
<td>- When did the problem first start?</td>
<td></td>
</tr>
<tr>
<td>- Did it occur suddenly or develop gradually?</td>
<td></td>
</tr>
<tr>
<td>- When and how often does the problem occur?</td>
<td></td>
</tr>
<tr>
<td>- What may have caused the problem?</td>
<td></td>
</tr>
<tr>
<td>- Did anything unusual occur before it started?</td>
<td></td>
</tr>
<tr>
<td>- Are you eating, sleeping, and doing other things normally?</td>
<td></td>
</tr>
<tr>
<td>- Has the problem become more severe?</td>
<td></td>
</tr>
<tr>
<td>- Are there other signs and conditions related to the problem? If Yes, ask what they are.</td>
<td></td>
</tr>
<tr>
<td>- Have you received treatment for the problem? If Yes, ask who provided the treatment, what it involved, and whether it helped.</td>
<td></td>
</tr>
<tr>
<td>5. Have you received care from another caregiver? If Yes, ask the following additional questions:</td>
<td></td>
</tr>
<tr>
<td>- Who provided the care?</td>
<td></td>
</tr>
<tr>
<td>- What did the care involve?</td>
<td></td>
</tr>
<tr>
<td>- What was the outcome of this care?</td>
<td></td>
</tr>
<tr>
<td>Estimated Date of Childbirth/Menstrual History</td>
<td></td>
</tr>
<tr>
<td>6. When is your baby due?</td>
<td></td>
</tr>
<tr>
<td>- If less than 37 weeks gestation and labor has started, conduct a rapid initial assessment and manage according to findings.</td>
<td></td>
</tr>
<tr>
<td>- If the woman does not know her EDC, estimate gestational age.</td>
<td></td>
</tr>
<tr>
<td>Present Pregnancy</td>
<td></td>
</tr>
<tr>
<td>7. Did you receive antenatal care during this pregnancy?</td>
<td></td>
</tr>
<tr>
<td>- If Yes, ask who provided antenatal care, how many visits, and what was included.</td>
<td></td>
</tr>
<tr>
<td>8. Have you had any (other) problems during this pregnancy? If yes, follow-up questions (see item 4 above).</td>
<td></td>
</tr>
<tr>
<td>Present Labor/Childbirth</td>
<td></td>
</tr>
<tr>
<td>9. Have your membranes ruptured/waters broken?</td>
<td></td>
</tr>
<tr>
<td>- If Yes, ask when, what color the fluid was, and whether it smelled foul/bad.</td>
<td></td>
</tr>
<tr>
<td>10. Have regular contractions started?</td>
<td></td>
</tr>
<tr>
<td>- If No, assess the woman for false labor.</td>
<td></td>
</tr>
<tr>
<td>- If Yes, ask when they began.</td>
<td></td>
</tr>
<tr>
<td>11. How often are you having contractions and how long does each one last?</td>
<td></td>
</tr>
<tr>
<td>12. Have you felt the baby move in the past 24 hours?</td>
<td></td>
</tr>
</tbody>
</table>
### CHECKLIST FOR ASSESSMENT OF THE WOMAN IN LABOR
(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>13. Have you taken any drugs, herbs, or other preparations in the last 24 hours?</td>
<td></td>
</tr>
<tr>
<td>14. When did you last eat or drink?</td>
<td></td>
</tr>
<tr>
<td><strong>Obstetric History</strong></td>
<td></td>
</tr>
<tr>
<td>15. Have you had a caesarean section, ruptured uterus, or any surgery to the uterus during a previous childbirth?</td>
<td></td>
</tr>
<tr>
<td>16. Have you had any other complications during a previous pregnancy, childbirth, or postpartum/newborn period? (e.g. convulsions (pre-eclampsia/eclampsia) during previous pregnancy, bleeding before or after the baby was born, tears through the rectum (third- or fourth-degree tears) during previous births, previous stillbirths, preterm or low birth weight babies, babies who died before 1 month of age) • If Yes, obtain additional information about the particular complication(s).</td>
<td></td>
</tr>
<tr>
<td>17. Have you had any previous problems breastfeeding?</td>
<td></td>
</tr>
<tr>
<td><strong>Medical History</strong></td>
<td></td>
</tr>
<tr>
<td>18. Do you have any allergies?</td>
<td></td>
</tr>
<tr>
<td>19. Have you been tested for HIV? If Yes, ask whether the result was positive.</td>
<td></td>
</tr>
<tr>
<td>20. Have you had anemia recently (within last three months)? If Yes, obtain additional information about signs and symptoms and possible cause.</td>
<td></td>
</tr>
<tr>
<td>21. Have you been tested for syphilis? If Yes, ask whether the result was positive and if and when and with what she was treated.</td>
<td></td>
</tr>
<tr>
<td>22. Have you had any chronic illness/condition, such as tuberculosis, hepatitis, heart disease, diabetes, or other serious chronic diseases?</td>
<td></td>
</tr>
<tr>
<td>23. Have you ever been in hospital or had surgery/an operation?</td>
<td></td>
</tr>
<tr>
<td>24. Are you taking any drugs/medications (including traditions/local preparations, herbal remedies, over-the-counter drugs, vitamins, or dietary supplements)?</td>
<td></td>
</tr>
<tr>
<td>25. Have you had a complete series of five tetanus toxoid (TT) immunizations? If Yes, find out if it has been less than 10 years since the woman’s last booster.</td>
<td></td>
</tr>
</tbody>
</table>

**Physical Examination**

Assessment of General Well-Being
# Checklist for Assessment of the Woman in Labor

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

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
</table>
| 1. Observe gait and movements, and behavior and vocalizations.  
- If not normal for the woman’s culture, ask if:  
  - She has been without food or fluids for a prolonged period;  
  - She has been taking drugs, herbs, etc.;  
  - She has had an injury. |  |
| 2. Observe breathing, noting gasping, wheezing, or rales. |  |
| 3. Check skin, noting lesions or bruises. |  |
| 4. Check conjunctiva for pallor. |  |
| **Vital Signs Measurements** |  |
| 5. Have the woman remain seated or lying down with knees slightly bent, ensuring that she is comfortable and relaxed. |  |
| 6. Measure blood pressure, temperature, and pulse. |  |
| **Visual Inspection of Breasts - this should only be performed if the woman is in the latent (or early active) phase of the first stage of labor and is not in acute distress. See Addendum below** |  |
| **Abdominal Examination** |  |
| 7. Ask the woman to uncover her stomach and ensure privacy and legs remain covered |  |
| 8. Have her lie on her back with her knees slightly bent. |  |
| 9. Check the surface of the abdomen noting any |  |
| 10. Check the shape of the uterus, noting if it is longer horizontally than vertically. |  |
| **Fundal Height** |  |
| 11. Measure fundal height:  
  - Place zero line of tape measure on the upper edge of symphysis pubis;  
  - Stretch tape measure across the contour of abdomen to top of fundus;  
  - Use the abdominal midline as line of measurement. |  |
| **Lie and Presentation** |  |
| 12. Carry out fundal palpation:  
  - Make sure hands are clean and warm;  
  - Stand at the woman’s side, facing her head;  
  - Place both hands on the sides of the fundus;  
  - Apply gentle but firm pressure to assess consistency and mobility of the fetal parts especially noting if head is felt in fundus |  |
### Checklist for Assessment of the Woman in Labor

(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>13. Carry out lateral palpation:</strong></td>
<td></td>
</tr>
<tr>
<td>• Move hands smoothly down sides of uterus to feel for fetal back</td>
<td></td>
</tr>
<tr>
<td>• 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;</td>
<td></td>
</tr>
<tr>
<td>• Repeat procedure on other side of uterus.</td>
<td></td>
</tr>
<tr>
<td><strong>14. Carry out pelvic palpation:</strong></td>
<td></td>
</tr>
<tr>
<td>• Turn and face the woman’s feet (the woman’s knees should already be bent slightly to relax abdominal muscles):</td>
<td></td>
</tr>
<tr>
<td>• Place hands on either side of uterus with palms below the level of the umbilicus and fingers pointing to symphysis pubis</td>
<td></td>
</tr>
<tr>
<td>• Grasp fetal part snugly between hands</td>
<td></td>
</tr>
<tr>
<td>– If fetal part is above symphysis pubis, feel shape, size, and mobility</td>
<td></td>
</tr>
<tr>
<td>– If head is presenting, a hard mass with a distinctive round surface will be felt</td>
<td></td>
</tr>
<tr>
<td>– Observe the woman’s face for signs of pain/tenderness during palpation</td>
<td></td>
</tr>
<tr>
<td><strong>Descent</strong></td>
<td></td>
</tr>
<tr>
<td>15. Feel the head above symphysis pubis with right hand.</td>
<td></td>
</tr>
<tr>
<td><strong>16. Using abdominal palpation, assess descent in terms of fifths of head above symphysis pubis:</strong></td>
<td></td>
</tr>
<tr>
<td>• Locate anterior shoulder of fetus with one hand;</td>
<td></td>
</tr>
<tr>
<td>• Place fingers of other hand horizontally on the woman’s abdomen above the symphysis pubis;</td>
<td></td>
</tr>
<tr>
<td>• Calculate the number of finger-breadths of head above the symphysis pubis:</td>
<td></td>
</tr>
<tr>
<td>– A head that is entirely above the symphysis pubis is five-fifths (5/5) palpable;</td>
<td></td>
</tr>
<tr>
<td>– A head that is entirely below the symphysis pubis is zero-fifths (0/5) palpable.</td>
<td></td>
</tr>
<tr>
<td><strong>Fetal Heart Rate</strong></td>
<td></td>
</tr>
<tr>
<td>17. Between contractions, place fetal stethoscope (fetoscope) on the woman’s abdomen at right angles to it (on same side that you palpated fetal back).</td>
<td></td>
</tr>
<tr>
<td>18. Listen to the fetal heart rate:</td>
<td></td>
</tr>
<tr>
<td>• Listen for a full minute, counting beats again second hand of clock/watch</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>
### Checklist for Assessment of the Woman in Labor

(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>Contraction</strong>s</td>
<td></td>
</tr>
<tr>
<td>19. Place a hand on the woman’s abdomen and palpate contractions from beginning of a contraction to end of contraction and on to beginning of next contraction.</td>
<td></td>
</tr>
</tbody>
</table>
| 20. Use a clock or watch to calculate frequency and duration of contractions:  
  - Frequency is the number of contractions in 10 minutes;  
  - Duration of contractions is the number of seconds from the beginning of a contraction to the end of a contraction. |       |
| **Genital Examination** |       |
| 21. Ask the woman to uncover her genital area and cover or drape her to preserve privacy and respect modesty. |       |
| 22. Ask the woman to separate her legs while continuing to bend her knees slightly. |       |
| 23. Turn on light and direct it toward genital area. |       |
| 24. Wash hands thoroughly and dry |       |
| 25. Put new examination or high-level disinfected gloves on both hands. |       |
| 26. Touch the inside of the woman’s thigh before touching any part of her genital area. |       |
| 27. Separate labia majora with two fingers, check labia minora, clitoris, urethral opening and vaginal opening, noting anything protruding from the vagina, sores, ulcers, warts, lice, blood or foul-smelling discharge, urine, or stool coming from vaginal opening. |       |
| 28. Palpate the labia minora:  
  - Look for swelling, discharge, tenderness, ulcers and fistulas;  
  - Feel for irregularities and nodules. |       |
| 29. Look at perineum, noting scars, lesions, inflammation, or cracks in skin. |       |
| 30. Separate labia with gloved hand and observe introitus for visible bulging of membranes or fetal head/parts. |       |
| **Vaginal Examination** |       |
| 31. Gently insert index and middle fingers of exam hand into vagina, maintaining light downward pressure, moving fingers toward cervix:  
  - Insert middle and index fingers into open cervix and gently open them to cervical rim (the distance between the outer aspect of both fingers is the dilatation in centimeters). |       |
<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>32. Assess condition of amniotic fluid and membranes:</td>
<td></td>
</tr>
<tr>
<td>• With middle and index fingers still inserted into cervix, evaluate</td>
<td></td>
</tr>
<tr>
<td>if bag of water is intact or ruptured:</td>
<td></td>
</tr>
<tr>
<td>− presence of a smooth membrane palpated over presenting part</td>
<td></td>
</tr>
<tr>
<td>indicates presence of intact bag of waters;</td>
<td></td>
</tr>
<tr>
<td>− If bag of waters is ruptured, presenting part will be felt</td>
<td></td>
</tr>
<tr>
<td>directly.</td>
<td></td>
</tr>
<tr>
<td>33. Assess presentation and position of fetus and molding:</td>
<td></td>
</tr>
<tr>
<td>• With index fingers still inserted into cervix:</td>
<td></td>
</tr>
<tr>
<td>− Feel fetal skull to confirm cephalic presentation and assess</td>
<td></td>
</tr>
<tr>
<td>molding, noting whether bones touch or overlap;</td>
<td></td>
</tr>
<tr>
<td>− Withdraw examination hand and inspect glove for blood and/or</td>
<td></td>
</tr>
<tr>
<td>meconium.</td>
<td></td>
</tr>
<tr>
<td>34. Immerse both gloved hands briefly in a container filled with 0.5%</td>
<td></td>
</tr>
<tr>
<td>chlorine solution; then remove gloves by turning them inside out and</td>
<td></td>
</tr>
<tr>
<td>dispose in a plastic bag or leakproof, covered waste container</td>
<td></td>
</tr>
<tr>
<td>35. Wash hands thoroughly</td>
<td></td>
</tr>
<tr>
<td>36. Record findings in woman’s record – if in active labour commence</td>
<td></td>
</tr>
<tr>
<td>partograph</td>
<td></td>
</tr>
<tr>
<td>37. Explain all findings to the woman and give supportive care</td>
<td></td>
</tr>
<tr>
<td><strong>ADDENDUM - Visual Inspection of Breasts</strong></td>
<td></td>
</tr>
<tr>
<td>Visual Inspection of Breasts (this part of the examination should only</td>
<td></td>
</tr>
<tr>
<td>be performed if the woman is in the latent (or early active) phase of</td>
<td></td>
</tr>
<tr>
<td>the first stage of labor and is not in acute distress)</td>
<td></td>
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<tr>
<td>38. Explain the next steps in the physical examination to the woman and</td>
<td></td>
</tr>
<tr>
<td>obtain her consent to proceed.</td>
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</tr>
<tr>
<td>39. Ask the woman to empty her bladder.</td>
<td></td>
</tr>
<tr>
<td>40. Wash hands thoroughly with soap and water and dry with a clean, dry</td>
<td></td>
</tr>
<tr>
<td>cloth or air dry.</td>
<td></td>
</tr>
<tr>
<td>41. Ask the woman to uncover her body from the waist up, and have her</td>
<td></td>
</tr>
<tr>
<td>remain seated with her arms at her sides.</td>
<td></td>
</tr>
<tr>
<td>42. Check the contours and skin of the breasts, noting dimpling or</td>
<td></td>
</tr>
<tr>
<td>visible lumps, scaliness, thickening, redness, lesions, sores, scars.</td>
<td></td>
</tr>
<tr>
<td>43. Check the nipples, noting any abnormal discharge, and inversion of</td>
<td></td>
</tr>
<tr>
<td>nipples:</td>
<td></td>
</tr>
<tr>
<td>• If nipples appear inverted, test for protractility by placing the</td>
<td></td>
</tr>
<tr>
<td>thumb and fingers on either side of areola and gently squeezing;</td>
<td></td>
</tr>
<tr>
<td>• If the nipple goes in when it is gently squeezed it is inverted.</td>
<td></td>
</tr>
</tbody>
</table>
# SKILLS PRACTICE SESSION 4:
## ASSISTING NORMAL BIRTH

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice assisting normal birth and achieve competency in the skills required. | This activity should be conducted in a simulated setting, using the childbirth simulator. | • Childbirth simulator  
• High-level disinfected or surgical gloves  
• Personal protective barriers  
• Delivery kit/pack  
• 0.5% chlorine solution and receptacle for decontamination  
• Leakproof container or plastic bag  
• 10 IU oxytocin  
• 5 mL syringe and needle |
| Participants should review Checklist 4 before beginning the activity. | The trainer should demonstrate the steps/tasks in assisting the birth (up to but not including active management of third stage). Under the guidance of the trainer, participants should then work in pairs and, using the childbirth simulator, practice the steps/tasks and observe each other’s performance; while one participant assists the birth, the second participant should use the relevant section of Checklist 4 to observe performance. Participants should then reverse roles. | Checklist 4: Assisting Normal Birth  
Checklist 4: Assisting Normal Birth  
Checklist 4: Assisting Normal Birth |
<p>| Participants should be able to perform the steps/tasks relevant to assisting the birth before progressing to active management of third stage, examination of placenta, and inspection of vagina and perineum. | | |</p>
<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The trainer should demonstrate the steps/tasks in active management of third stage, including examination of the placenta and inspection of the vagina and perineum for tears. Under the guidance of the trainer, participants should then work in pairs and, using the childbirth simulator, practice the steps/tasks and observe each other's performance; while one participant performs active management of third stage, examination of the placenta, and inspection of the vagina and perineum for tears, the second participant should use the relevant section of Checklist 4 to observe performance. Participants should then reverse roles.</td>
<td>Checklist 4: Assisting Normal Birth</td>
</tr>
<tr>
<td></td>
<td>Participants should be able to perform all of the steps/tasks in Checklist 4 before skills competency is assessed in the simulated setting by the trainer, using Checklist 4.</td>
<td>Checklist 4: Assisting Normal Birth</td>
</tr>
<tr>
<td></td>
<td>Finally, following supervised practice at a clinical site, the trainer should assess the skills competency of each participant, using Checklist 4.</td>
<td>Checklist 4: Assisting Normal Birth</td>
</tr>
</tbody>
</table>
CHECKLIST 4:  
ASSISTING NORMAL BIRTH (INCLUDING IMMEDIATE NEWBORN CARE AND 
ACTIVE MANAGEMENT OF THE THIRD STAGE OF LABOR)

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

Participant/Student: ___________________________ Date Observed: _______________

<table>
<thead>
<tr>
<th>CHECKLIST FOR ASSISTING NORMAL BIRTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Some of the following steps/tasks should be performed simultaneously)</td>
</tr>
<tr>
<td><strong>STEP/TASK</strong></td>
</tr>
<tr>
<td><strong>GETTING READY</strong></td>
</tr>
<tr>
<td>1. Prepares the necessary equipment.</td>
</tr>
<tr>
<td>2. Encourages the woman to adopt the position of choice and continue spontaneous bearing down efforts.</td>
</tr>
<tr>
<td>3. Tells the woman what is going to be done, listens to her, and responds attentively to her questions and concerns.</td>
</tr>
<tr>
<td>4. Provides continual emotional support and reassurance, as feasible.</td>
</tr>
<tr>
<td>5. Puts on personal protective barriers.</td>
</tr>
<tr>
<td><strong>SKILL/ACTIVITY PERFORMED SATISFACTORILY</strong></td>
</tr>
<tr>
<td><strong>ASSISTING THE BIRTH</strong></td>
</tr>
<tr>
<td>1. Wait until head is visible and perineum distending. Ask woman to pant or give only small pushes with contractions.</td>
</tr>
<tr>
<td>2. Washes hands thoroughly, put on high-level disinfected or sterile surgical gloves (2 pairs).</td>
</tr>
<tr>
<td>3. Clean the woman’s perineum, and place one sterile drape from delivery pack under the woman’s buttocks and one over her abdomen, and use the third drape to receive the baby.</td>
</tr>
<tr>
<td>4. Control the birth of the head with the fingers of one hand to maintain flexion, allow natural stretching of the perineal tissue, and prevent tears, and use the other hand to support the perineum.</td>
</tr>
<tr>
<td>5. Check that the eyes and face are clear of mucus and membranes. Wipe with gauze if needed.</td>
</tr>
</tbody>
</table>
### Checklist for Assisting Normal Birth

*(Some of the following steps/tasks should be performed simultaneously)*

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Feel around the baby’s neck for the cord and respond appropriately if the cord is present.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Allow the baby’s head to turn spontaneously and, with the hands on either side of the baby’s head, deliver the anterior shoulder.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>When the arm fold is seen, guide the head upward as the posterior shoulder is born over the perineum and lift the baby’s head anteriorly to deliver the posterior shoulder.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Support the rest of the baby’s body with one hand as it slides out, and place the baby on the mother’s abdomen.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Note the time and sex of the baby and tells the mother.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Thoroughly dry the baby and assess breathing. If baby does not breathe immediately, begin resuscitative measures (see Checklist 14: Newborn Resuscitation).</td>
<td></td>
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</tr>
<tr>
<td>12.</td>
<td>Remove wet towel and ensure that the baby is kept warm, using skin-to-skin contact on the mother’s chest. Cover the baby with a cloth or blanket, including the head (with hat if possible).</td>
<td></td>
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<tr>
<td>13.</td>
<td>Palpate the mother’s abdomen to rule out the presence of additional baby (ies) and proceed with active management of the third stage.</td>
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</tbody>
</table>

### Skill/Activity Performed Satisfactorily

#### Active Management of Third Stage of Labor

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<tbody>
<tr>
<td>1.</td>
<td>If no additional baby, give oxytocin 10 units IM within one minute of birth.</td>
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</tr>
<tr>
<td>2.</td>
<td>Change gloves or remove top pair.</td>
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<tr>
<td>3.</td>
<td>Clamp and cut the cord approximately 3 minutes after birth: Clamp the cord at about 3 cm and 5 cm from the umbilicus; tie securely between clamps and cut with sterile scissors or blade.</td>
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<tr>
<td>4.</td>
<td>Wait for a uterine contraction.</td>
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<tr>
<td>5.</td>
<td>With hand above public bone, apply pressure in an upward direction (towards the woman’s head) to apply counter traction and stabilize the uterus.</td>
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<tr>
<td>6.</td>
<td>At the same time with the other hand, pull with a firm, steady tension on the cord in a downward direction (follow direction of the birth canal.)</td>
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<tr>
<td>7.</td>
<td>Deliver placenta slowly with both hands, gently turning the entire placenta and lifting it up and down until membranes deliver.</td>
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<tr>
<td>8.</td>
<td>Immediately after placenta delivers, massage uterus until firm.</td>
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<tr>
<td>9.</td>
<td>Examines the placenta, membranes, and cord and disposes placenta into bucket lined with plastic bag or as culturally appropriate.</td>
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<tr>
<td>10.</td>
<td>Examine the vulva, perineum and vagina for lacerations/tears and carry out appropriate repair as needed.</td>
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</tr>
</tbody>
</table>
### CHECKLIST FOR ASSISTING NORMAL BIRTH
(Some of the following steps/tasks should be performed simultaneously)

11. Cleanse perineum and area beneath the woman and apply a pad or cloth to vulva.

12. Assist the mother to a comfortable position for continued breastfeeding and bonding with her newborn. (Further assessment and immunization of the newborn can occur later before the mother is discharged or the skilled attendant leaves.)

### SKILL/ACTIVITY PERFORMED SATISFACTORILY

### POST-PROCEDURE TASKS

1. Dispose of contaminated items in a plastic bag or leakproof, covered waste container.

2. Decontaminate instruments by placing in a container filled with 0.5% chlorine solution for 10 minutes.

3. Dispose of needle and syringe in a puncture-resistant sharps container.

4. Immerse both gloved hands briefly in a container filled with 0.5% chlorine solution; then remove gloves by turning them inside out.

5. Wash hands thoroughly.

6. Record all information on record including estimated blood loss.

### SKILL/ACTIVITY PERFORMED SATISFACTORILY

### IMMEDIATE POST PARTUM AND NEWBORN CARE

#### Observation of the baby:

1. Monitor baby’s temperature every 30 minutes for 2 hours, by touching its chest.

2. Check the cord; if there is bleeding from the cord, retie it if necessary.

3. Encourage and support the mother in initiating breastfeeding within the first hour after birth.

#### Immediate care of newborn:

4. After the baby has breastfed:
   - Identify the baby
   - Weigh the baby and records
   - Perform eye care
   - Ensure the baby is dressed warmly and with the mother
   - Explain to mother importance of delayed bathing and not to apply anything to the skin or cord

#### Care of the mother:
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHECKLIST FOR ASSISTING NORMAL BIRTH</strong>&lt;br&gt;(Some of the following steps/tasks should be performed simultaneously)**</td>
<td></td>
</tr>
<tr>
<td>5. Monitors the woman and baby every 15 minutes in the first hour and every 30 minutes in the second hour checking:</td>
<td></td>
</tr>
<tr>
<td>• Uterine tone</td>
<td></td>
</tr>
<tr>
<td>• Vaginal bleeding</td>
<td></td>
</tr>
<tr>
<td>• Blood pressure</td>
<td></td>
</tr>
<tr>
<td>• Pulse</td>
<td></td>
</tr>
<tr>
<td>• Hydration</td>
<td></td>
</tr>
<tr>
<td>• Consciousness</td>
<td></td>
</tr>
<tr>
<td>6. Ask the woman if she has urinated and encourage her to do so whenever she wishes.</td>
<td></td>
</tr>
<tr>
<td>7. Encourage the woman to eat and drink.</td>
<td></td>
</tr>
<tr>
<td>8. Encourage the woman to stay in the facility for next 24 hours and to attend for further postpartum care within next 3 days.</td>
<td></td>
</tr>
<tr>
<td>9. Record the information on the woman’s clinical record.</td>
<td></td>
</tr>
</tbody>
</table>
CASE STUDY 2:
SUPPORTING THE WOMAN IN LABOR

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.

CASE STUDY
Rona is 30 years old. She attended antenatal clinic 2 weeks ago and has now come to the health center with her mother-in-law because labor pains started 3 hours ago. The pains start in her back and move forward, last 20 seconds and occur about every 8 minutes.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)
1. What will you include in your assessment of Rona and why?
2. What particular aspects of Rona’s physical examination will help you make a diagnosis or identify her problems/needs and why?
3. What screening procedures/laboratory tests will you include in your assessment of Rona and why?

DIAGNOSIS (Identification of Problems/Needs)
You have completed your assessment of Rona and your main findings include the following:
• Rona is 39 weeks pregnant.
• This is her second pregnancy.
• Her first pregnancy and birth were uncomplicated, although she reports that labor was more painful than she had expected.
• She has no abnormal physical findings, but is very anxious and becomes agitated during contractions.
• Rona’s cervix is 3 cm dilated.
• The presentation is vertex and the fetal head is at four-fifths above the pelvic brim.
4. Based on these findings, what is Rona’s diagnosis (problem/need) and why?

CARE PROVISION (Planning and Intervention)
5. Based on your diagnosis (problem/need identification), what is your plan of care for Rona and why?
EVALUATION

- Rona continues to have regular contractions; 2 hours after admission she is having 2 contractions in 10 minutes, each lasting 20–40 seconds.
- Maternal pulse and fetal heart rate are within normal range.
- Rona’s level of anxiety remains high and she continues to become agitated during contractions.

6. Based on these findings, what is your continuing plan of care for Rona and why?
SKILLS PRACTICE SESSION 5:
EPISIOTOMY AND REPAIR

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this activity is to enable participants to practice episiotomy and repair and achieve competency in the skills required.</td>
<td>This activity should be conducted in a simulated setting, using the appropriate models.</td>
<td>• Pelvic model or “foam block” that would enable episiotomy and repair to be performed&lt;br&gt;• High-level disinfected or surgical gloves&lt;br&gt;• Personal protective barriers&lt;br&gt;• Examination light&lt;br&gt;• Local anesthetic (0.5% Lignocaine)&lt;br&gt;• Needle and syringe&lt;br&gt;• Suture materials</td>
</tr>
<tr>
<td>Participants should review the Checklist 5 before beginning the activity.</td>
<td></td>
<td>Checklist 5: Episiotomy and Repair</td>
</tr>
<tr>
<td>The trainer should demonstrate the steps/tasks in the procedure of episiotomy and repair for participants Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 5.</td>
<td></td>
<td>Checklist 5: Episiotomy and Repair</td>
</tr>
<tr>
<td>Participants should be able to perform the steps/tasks in Checklist 5 before skill competency is assessed in the simulated setting by the trainer, using Checklist 5.</td>
<td></td>
<td>Checklist 5: Episiotomy and Repair</td>
</tr>
<tr>
<td>Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 5.</td>
<td></td>
<td>Checklist 5: Episiotomy and Repair</td>
</tr>
</tbody>
</table>
**Note:** If patients are not available at clinical sites for participants to practice episiotomy and repair, the skills should be taught, practiced and assessed in the simulated setting.
CHECKLIST 5:
EPISIOTOMY AND REPAIR

Place a “✓” in case box if step/task 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

Participant/Student: ____________________________ Date Observed: __________________

<table>
<thead>
<tr>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>GETTING READY</td>
</tr>
<tr>
<td>1. Prepare the necessary equipment.</td>
</tr>
<tr>
<td>2. Tell the woman what is going to be done and encourage her to ask questions.</td>
</tr>
<tr>
<td>3. Listen to what the woman has to say.</td>
</tr>
<tr>
<td>4. Make sure that the woman has no allergies to lignocaine or related drugs.</td>
</tr>
<tr>
<td>5. Provide emotional support and reassurance, as feasible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMINISTERING LOCAL ANESTHETIC</td>
</tr>
<tr>
<td>1. Cleanse perineum with antiseptic solution and place drape under the woman’s buttocks and over her abdomen.</td>
</tr>
<tr>
<td>2. Draw 10 ml of 0.5% lignocaine into a syringe.</td>
</tr>
<tr>
<td>3. Place two fingers into vagina along proposed incision line.</td>
</tr>
<tr>
<td>4. Insert needle beneath skin for 4–5 cm following same line.</td>
</tr>
<tr>
<td>5. Draw back the plunger of syringe to make sure that needle is not in a blood vessel:</td>
</tr>
<tr>
<td>• If blood is returned in syringe, remove needle, recheck position carefully, and try again;</td>
</tr>
<tr>
<td>• If no blood is withdrawn, continue as follows.</td>
</tr>
<tr>
<td>6. Inject lignocaine into vaginal mucosa, beneath skin of perineum and deeply into perineal muscle.</td>
</tr>
<tr>
<td>7. Wait two minutes and then pinch incision site with forceps.</td>
</tr>
<tr>
<td>8. If the woman feels the pinch, wait two more minutes and then retest.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAKING THE EPISIOTOMY</td>
</tr>
<tr>
<td>1. Wait to perform episiotomy until:</td>
</tr>
<tr>
<td>• Perineum is thinned out</td>
</tr>
<tr>
<td>• 3–4 cm of the baby’s head is visible during a contraction</td>
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</tbody>
</table>
# CHECKLIST FOR EPISIOTOMY AND REPAIR

*(Some of the following steps/tasks should be performed simultaneously)*

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
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</thead>
<tbody>
<tr>
<td>2. Place two fingers between the baby’s head and the perineum.</td>
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</tbody>
</table>
| 3. Insert open blade of scissors between perineum and two fingers:  
  • Cut the perineum about 3 cm in a mediolateral direction (45º angle to the midline toward a point midway between ischial tuberosity and anus). |       |
| 4. If birth of head does not follow immediately, apply pressure to episiotomy site between contractions, using a piece of gauze, to minimize bleeding. |       |
| 5. Control birth of head and shoulders to avoid extension of the episiotomy. |       |

## REPAIRING THE EPISIOTOMY

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask the woman to position her buttocks toward lower end of bed or table (use stirrups if available).</td>
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</tr>
<tr>
<td>2. Ask an assistant to direct a strong light onto the woman’s perineum.</td>
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</tr>
<tr>
<td>3. Gently clean area around episiotomy with antiseptic solution.</td>
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</tr>
<tr>
<td>4. Using 2/0 suture, insert suture needle just above (1 cm) the apex of the vaginal cut.</td>
<td></td>
</tr>
<tr>
<td>5. Use a continuous suture from apex downward to level of vaginal opening.</td>
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</tr>
<tr>
<td>6. At opening of vagina, bring together cut edges.</td>
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</tr>
<tr>
<td>7. Bring needle under vaginal opening and out through incision and tie.</td>
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</tr>
<tr>
<td>8. Use interrupted or continuous sutures to repair perineal muscle, working from top of perineal incision downward.</td>
<td></td>
</tr>
<tr>
<td>9. Use interrupted or continuous subcuticular sutures to bring skin edges together.</td>
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</tr>
<tr>
<td>10. Wash perineal area with antiseptic, pat dry, and place a sterile sanitary pad over the vulva and perineum.</td>
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</table>

## POST-PROCEDURE TASKS

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
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<tbody>
<tr>
<td>1. Dispose of waste materials (e.g., blood-contaminated swabs) in a leakproof container or plastic bag.</td>
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</tr>
<tr>
<td>2. Decontaminate instruments by placing in a plastic container filled with 0.5% chlorine solution for 10 minutes.</td>
<td></td>
</tr>
<tr>
<td>3. Dispose of needle and syringe in a puncture proof container</td>
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</tr>
<tr>
<td>4. Immerse both gloved hands in 0.5% chlorine solution and remove gloves by turning them inside out and place in leakproof container or plastic bag.</td>
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</tr>
<tr>
<td>5. Wash hands thoroughly with soap and water and dry with clean, dry cloth or air dry.</td>
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</tr>
<tr>
<td>6. Record procedure on woman’s record.</td>
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</tr>
<tr>
<td>7. Explain to the woman how to keep the area clean and dry and to return for postpartum care.</td>
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</tbody>
</table>
| 8. Offer the woman regular analgesic/anti inflammatory for 48hrs:  
  • Diclofenic 50 mg TDS if no contraindications |       |
CASE STUDY 3:
POSTPARTUM ASSESSMENT AND CARE

DIRECTIONS

Read and analyse 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

Hanifa is 18 years of age and gave birth to her first baby at home 10 days ago. Her pregnancy, labor, and birth were uncomplicated. The midwife who attended the birth checked Hanifa and her baby the day after the birth. She has not seen a health care provider since then. This is her first postpartum clinic visit. Hanifa has come to the clinic because she has sore, red nipples. Her baby is with her.

PRE-ASSESSMENT

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

ASSESSMENT (Information Gathering through History, Physical Examination, and Testing)

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

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

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

DIAGNOSIS (Interpreting Information to Identify Problems/Needs)

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

HISTORY:

- Hanifa is feeling well but has sore, red nipples.
- She reports that the baby breastfeeds approximately every 2 hours.
- All other aspects of her history are normal or without significance.
PHYSICAL EXAMINATION:

- Hanifa generally appears well.
- Vital signs are as follows: BP is 110/72, Pulse is 76 beats per minute; Temperature is 37.6°C.
- There is no redness, tenderness, streaking, or masses palpable in the breast tissue; however, during observation of breastfeeding, it was found that the baby was not attaching well to the breast.
- All findings on examination of the baby are within normal range and without significance.
- All other aspects of her physical examination are within normal range and without significance.

TESTING:

HIV test is negative.

5. Based on these findings, what is Hanifa’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 Hanifa and why?

EVALUATION

7. Based on these findings, what is your continuing plan of care for Hanifa and why?
ROLE PLAY 2: COMMUNICATING ABOUT FAMILY PLANNING CHOICES

ROLE PLAY DIRECTIONS

The teacher will select two learners to perform the roles specified. For example: a community midwife, and a woman seeking information about family planning methods. The two learners participating in the role play should take a few minutes to read the background information provided below and to prepare for the role play. The observers in the group should also read the background information so that they can participate in the small group discussion following the role play.

The purpose of the role play is to provide an opportunity for learners to appreciate the importance of good communication when providing counseling about available health care services for safe motherhood to a woman who is seeking a family planning method.

PARTICIPANT ROLES

Provider: The provider is an experienced community midwife at the health center who has good communication skills.

Client: Feroza is a 21-year-old mother; she has 2 children, an 11-month-old and a 2-year-old. She is still breastfeeding. She would like to delay having another child for 2 or 3 years.

SITUATION

Feroza has come to the health center to get information about family planning methods. Some of her friends have had “the Copper T.” Her husband has agreed to her trying a family planning method, but he does not want to use condoms. She is nervous about the safety of family planning; she has heard that it can make it impossible to have more children.

FOCUS OF THE ROLE PLAY

The focus of the role play is the interaction between the midwife and Feroza. The midwife should assess Feroza’s knowledge about the available family planning methods (IUD, Depo-Provera, condoms, and the Pill). She should provide Feroza with information about each of the available methods and assess the appropriateness of each of the methods for Feroza. The midwife should provide Feroza with emotional support and reassurance. Feroza should continue to express her fears and concerns until the midwife has provided her with enough information and reassurance to decide what method she would like to try.
DISCUSSION QUESTIONS

The trainer/teacher should use the following questions to facilitate discussion after the role play:

1. How did the midwife approach Feroza?

2. Did the midwife give Feroza all of the information that she needed to make the best decision for herself?

3. What did the midwife do to demonstrate emotional support and reassurance during his/her interaction with Feroza? Were the midwife’s explanations and reassurance effective?

4. What could the midwife do to improve his/her interaction with a client?
The purpose of this activity is to enable learners to practice assessment of the woman in labor, including history and physical examination, and to achieve competency in the skills required.

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
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</thead>
</table>
| The first part of this activity (history and physical examination) should be conducted in a simulated setting using the appropriate model(s). The provision of postpartum care should then be practiced in a postpartum clinic or postpartum ward. | Learners should review the Checklist 6 before beginning the activity. | • Pelvic model  
• Sphygmomanometer and stethoscope  
• Examination gloves  
• 0.5% chlorine solution and receptacle for decontamination  
• Leakproof container or plastic bag  
• Postpartum record |
| The teacher should demonstrate the steps/tasks in taking a postpartum history for learners. Under the guidance of the teacher, learners should then work in groups of three to practice the steps/tasks and observe each other’s performance; while one learner takes a history from another, the third learner should use the relevant section of Checklist 6 to observe performance. Learners should then reverse roles until each has had an opportunity to take a history and be observed. | | Checklist 6: Postpartum Assessment (History and Physical Examination) and Care |
| Learners should be able to perform the steps/tasks relevant to taking a postpartum history before progressing to physical examination. | | Checklist 6: Postpartum Assessment (History and Physical Examination) and Care |
### PURPOSE

See above.

### INSTRUCTIONS

The teacher should demonstrate the steps/tasks in physical examination of the postpartum woman for learners. Under the guidance of the teacher, learners should then work in pairs and, using the appropriate model(s), practice the steps/tasks and observe each other’s performance; while one learner does the physical examination, the second learner should use the relevant section of Checklist 6 to observe performance. Learners should then reverse roles.

Learners should be able to perform the steps/tasks for postpartum history and physical examination before skills competency is assessed in the simulated setting by the teacher, using Checklist 6.

The provision of postpartum care should be demonstrated in a postpartum clinic or ward and learners should then be supervised in the practice of postpartum assessment and care.

Finally, following supervised practice at a clinical site, the teacher should assess the skills competency of each learner using Checklist 6.

### RESOURCES

- **Checklist 6**: Postpartum Assessment (History and Physical Examination) and Care
CHECKLIST 6:
POSTPARTUM ASSESSMENT (HISTORY AND PHYSICAL EXAMINATION) AND CARE

(To be used by the Trainer at the end of the module)

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

Participant/Student: _______________________________ Date Observed: _________________

CHECKLIST FOR POSTPARTUM ASSESSMENT (HISTORY AND PHYSICAL EXAMINATION) AND CARE
(Some of the following steps/tasks should be performed simultaneously.)

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
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</thead>
<tbody>
<tr>
<td>GETTING READY</td>
<td></td>
</tr>
<tr>
<td>1. Prepare the necessary equipment.</td>
<td></td>
</tr>
<tr>
<td>2. Greet the woman respectfully and with kindness.</td>
<td></td>
</tr>
<tr>
<td>3. Tell the woman (and her support person) what is going to be done, listen to her attentively, and respond to her questions and concerns.</td>
<td></td>
</tr>
<tr>
<td>4. Provide continual emotional support and reassurance, as possible.</td>
<td></td>
</tr>
</tbody>
</table>

SKILL/ACTIVITY PERFORMED SATISFACTORILY

HISTORY (Ask the following questions if the information is not available on the woman’s record.)

Personal Information (Every Visit for items followed with an “*”; First Visit for other items)

<table>
<thead>
<tr>
<th>STEP</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your name and age, and the name of your baby?</td>
<td></td>
</tr>
<tr>
<td>2. What is your address and your phone number?</td>
<td></td>
</tr>
<tr>
<td>3. Do you have access to reliable transportation?</td>
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</tr>
<tr>
<td>4. What sources of income/financial support do you/your family have?</td>
<td></td>
</tr>
<tr>
<td>5. How many times have you been pregnant and how many children have you had?</td>
<td></td>
</tr>
<tr>
<td>6. How many of your children are still living?</td>
<td></td>
</tr>
<tr>
<td>7. Are you having a particular problem at present?*</td>
<td></td>
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<tr>
<td>8. Have you received care from another caregiver?*</td>
<td></td>
</tr>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Daily Habits and Lifestyle (Every Visit for items followed with an “*”; First Visit for other items)</strong></td>
<td></td>
</tr>
<tr>
<td>9. Do you work outside the home?*</td>
<td></td>
</tr>
<tr>
<td>10. Do you walk long distances, carry heavy loads, or do physical labor?*</td>
<td></td>
</tr>
<tr>
<td>11. Do you get enough sleep/rest?*</td>
<td></td>
</tr>
<tr>
<td>12. What do you normally eat in a day?*</td>
<td></td>
</tr>
<tr>
<td>13. Do you eat any substances such as dirt or clay?</td>
<td></td>
</tr>
<tr>
<td>14. Do you smoke, drink alcohol, or use any other possibly harmful substances?</td>
<td></td>
</tr>
<tr>
<td>15. Who do you live with?</td>
<td></td>
</tr>
<tr>
<td>16. Has anyone ever prevented you from seeing family or friends, stopped you from leaving your home, or threatened your life?</td>
<td></td>
</tr>
<tr>
<td>17. Have you ever been injured, hit, or forced to have sex by someone?</td>
<td></td>
</tr>
<tr>
<td>18. Are you frightened of anyone?</td>
<td></td>
</tr>
<tr>
<td><strong>Present Pregnancy and Childbirth (First Visit)</strong></td>
<td></td>
</tr>
<tr>
<td>19. When did you have your baby?</td>
<td></td>
</tr>
<tr>
<td>20. Where did you have your baby and who attended the birth?</td>
<td></td>
</tr>
<tr>
<td>21. Did you have any vaginal bleeding during this pregnancy?</td>
<td></td>
</tr>
<tr>
<td>22. Did you have any complications during this childbirth?</td>
<td></td>
</tr>
<tr>
<td>23. Were there any complications with the baby?</td>
<td></td>
</tr>
<tr>
<td><strong>Present Postpartum Period (Every Visit)</strong></td>
<td></td>
</tr>
<tr>
<td>24. Have you had any heavy bleeding since you gave birth?</td>
<td></td>
</tr>
<tr>
<td>25. What color is your vaginal discharge and how often do you need to change your pad/cloth?</td>
<td></td>
</tr>
<tr>
<td>26. Have you had any problems with bowel or bladder function?</td>
<td></td>
</tr>
<tr>
<td>27. Do you feel good about your baby and your ability to take care of her/him?</td>
<td></td>
</tr>
<tr>
<td>28. Is your family adjusting to the baby?</td>
<td></td>
</tr>
<tr>
<td>29. Do you feel that breastfeeding is going well?</td>
<td></td>
</tr>
<tr>
<td><strong>Previous Postpartum History (First Visit)</strong></td>
<td></td>
</tr>
<tr>
<td>30. Have you breastfed a baby before?</td>
<td></td>
</tr>
<tr>
<td>31. Did you have any complications following previous childbirths?</td>
<td></td>
</tr>
<tr>
<td><strong>Contraceptive History (First Visit)</strong></td>
<td></td>
</tr>
<tr>
<td>32. How many more children do you plan to have?</td>
<td></td>
</tr>
<tr>
<td>33. Have you used a family planning method before?</td>
<td></td>
</tr>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>34. Are you going to use family planning in the future?</td>
<td></td>
</tr>
<tr>
<td>Medical History (Every Visit for items followed with an “*”; First Visit for other items)</td>
<td></td>
</tr>
<tr>
<td>35. Do you have any allergies?</td>
<td></td>
</tr>
<tr>
<td>36. Have you been tested for HIV?</td>
<td></td>
</tr>
<tr>
<td>37. Have you had anemia recently?</td>
<td></td>
</tr>
<tr>
<td>38. Have you been tested for syphilis?</td>
<td></td>
</tr>
<tr>
<td>39. Have you had any chronic illness/condition, such as tuberculosis, hepatitis, heart disease, diabetes, or any other chronic illness?</td>
<td></td>
</tr>
<tr>
<td>40. Have you ever been in hospital or had surgery/an operation?</td>
<td></td>
</tr>
<tr>
<td>41. Are you taking any drugs/medications, including traditional/local preparations, herbal remedies, over-the-counter drugs, vitamins, and dietary supplements?*</td>
<td></td>
</tr>
<tr>
<td>42. Have you had a complete series of five tetanus toxoid immunizations?</td>
<td></td>
</tr>
<tr>
<td>43. When did you have your last booster of tetanus toxoid?</td>
<td></td>
</tr>
<tr>
<td>Interim History (Return Visits)</td>
<td></td>
</tr>
<tr>
<td>44. Do you have a problem at present?</td>
<td></td>
</tr>
<tr>
<td>45. Have you had any problems since your last visit?</td>
<td></td>
</tr>
<tr>
<td>46. Has your address or phone number changed since your last visit?</td>
<td></td>
</tr>
<tr>
<td>47. Have your daily habits or lifestyle (workload, rest, dietary intake) changed since your last visit?</td>
<td></td>
</tr>
<tr>
<td>48. Have you received care from another caregiver since your last visit?</td>
<td></td>
</tr>
<tr>
<td>49. Have you taken drugs/medications prescribed and followed the advice/recommendations (plan of care) provided at your last visit?</td>
<td></td>
</tr>
<tr>
<td>50. Have you had any reactions to or side effects from immunizations or drugs/medications given at your last visit?</td>
<td></td>
</tr>
<tr>
<td>SKILL/ACTIVITY PERFORMED SATISFACTORILY</td>
<td></td>
</tr>
<tr>
<td>PHYSICAL EXAMINATION</td>
<td></td>
</tr>
<tr>
<td>1. Observe gait and movements, and behavior and facial expressions.</td>
<td></td>
</tr>
<tr>
<td>2. Observe general hygiene, noting visible dirt and odor.</td>
<td></td>
</tr>
<tr>
<td>3. Check skin, noting lesions and bruises.</td>
<td></td>
</tr>
<tr>
<td>4. Check conjunctive for pallor.</td>
<td></td>
</tr>
<tr>
<td>5. Have the woman remain seated and relaxed, and measure her blood pressure, temperature, and pulse.</td>
<td></td>
</tr>
<tr>
<td>6. Explain the next steps in the physical examination to the woman and obtain her consent to proceed.</td>
<td></td>
</tr>
</tbody>
</table>
### Checklist for Postpartum Assessment (History and Physical Examination) 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>7. Ask the woman to empty her bladder.</td>
<td></td>
</tr>
<tr>
<td>8. Wash hands thoroughly.</td>
<td></td>
</tr>
<tr>
<td>9. Ask the woman to uncover her body from the waist up, have her lie comfortably on her back, and examine her breasts, noting any abnormalities.</td>
<td></td>
</tr>
<tr>
<td>10. Ask the woman to uncover her stomach and lie on her back with her knees slightly bent.</td>
<td></td>
</tr>
<tr>
<td>11. Look for old or new incisions on the abdomen, and gently palpate abdomen between umbilicus and symphysis pubis, noting size and firmness of uterus, and check whether bladder is palpable above the symphysis pubis.</td>
<td></td>
</tr>
<tr>
<td>12. Examine the woman’s legs, noting any calf pain.</td>
<td></td>
</tr>
<tr>
<td>13. Ask the woman to uncover her genital area, cover or drape her to preserve privacy and modesty, and ask her to separate her legs.</td>
<td></td>
</tr>
<tr>
<td>14. Turn on the light and direct it toward genital area.</td>
<td></td>
</tr>
<tr>
<td>15. Wash hands thoroughly and put new examination or high-level disinfected gloves on both hands.</td>
<td></td>
</tr>
<tr>
<td>16. Inspect/examine labia, clitoris, and perineum, noting lochia, scars, bruising, and skin integrity.</td>
<td></td>
</tr>
</tbody>
</table>
| 17. Immerse both gloved hands briefly in a container filled with 0.5% chlorine solution; then remove gloves by turning them inside out:  
  • If disposing of gloves (examination gloves and surgical gloves that will not be reused), place in a plastic bag or leakproof, covered waste container. |       |
| 18. Wash hands thoroughly. |       |

**Skill/Activity Performed Satisfactorily**

### Care Provision

**Note:** Individualize the woman’s care by considering all information gathered during assessment.

1. Based on the woman’s breastfeeding history, provide information about breastfeeding and breast care.
2. Review the woman’s complication readiness plan with her (or develop one if she does not have one).
3. Encourage family involvement with the newborn and assist the family to identify challenges/obstacles and devise strategies for overcoming them.
4. Introduce the concepts of birth spacing and family planning.
5. Provide advice and counseling about diet and nutrition.
6. Provide advice and counseling about self-care.
<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Give tetanus toxoid (TT) based on woman’s need.</td>
<td></td>
</tr>
<tr>
<td>8. Dispense sufficient supply of iron/folate until next visit and counsel the woman about taking the pills.</td>
<td></td>
</tr>
<tr>
<td>9. Dispense other medications based on need.</td>
<td></td>
</tr>
<tr>
<td>10. Schedule the next visit.</td>
<td></td>
</tr>
<tr>
<td>11. Complete records.</td>
<td></td>
</tr>
</tbody>
</table>

CHECKLIST FOR POSTPARTUM ASSESSMENT (HISTORY AND PHYSICAL EXAMINATION) AND CARE
(Some of the following steps/tasks should be performed simultaneously.)
# SKILLS PRACTICE SESSION 7: BREECH DELIVERY

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice breech delivery and achieve competence in the procedure. | This activity should be conducted in a simulated setting, using the appropriate models. | - Childbirth simulator  
- High-level disinfected or sterile surgical gloves  
- Personal protective barriers  

Participants should review Checklist 6 before beginning the activity.  

The trainer should demonstrate the steps/tasks in the procedure of breech delivery for participants. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 6.  

Participants should be able to perform the steps/tasks in Checklist 6 before skill competency is assessed by the trainer in the simulated setting, using Checklist 6.  

Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 6.¹ |

¹ If patients are not available at clinical sites for participants to practice breech delivery, the skills should be taught, practiced and assessed in a simulated setting.
# Checklist 7: Breech Delivery

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

| Participant/Student: ___________________________ | Date Observed: ______________ |

## Checklist for Breech Delivery
(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 necessary equipment including for newborn resuscitation.</td>
<td></td>
</tr>
<tr>
<td>2. Tell the woman what is going to be done, listen to her and respond attentively to her questions and concerns.</td>
<td></td>
</tr>
<tr>
<td>3. Provide continual emotional support and reassurance, as feasible.</td>
<td></td>
</tr>
<tr>
<td>4. Review to ensure that the following conditions for breech delivery are present:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Complete or frank breech</td>
</tr>
<tr>
<td></td>
<td>• Adequate clinical pelvimetry</td>
</tr>
<tr>
<td></td>
<td>• Fetus is not too large</td>
</tr>
<tr>
<td></td>
<td>• No previous cesarean section for cephalopelvic disproportion</td>
</tr>
<tr>
<td></td>
<td>• Flexed head</td>
</tr>
<tr>
<td>5. Put on personal protective barriers.</td>
<td></td>
</tr>
<tr>
<td><strong>PREPROCEDURE TASKS</strong></td>
<td></td>
</tr>
<tr>
<td>1. Wash hands thoroughly with soap and water and dry.</td>
<td></td>
</tr>
<tr>
<td>2. Put on sterile surgical gloves on both hands.</td>
<td></td>
</tr>
<tr>
<td>3. Clean the vulva with antiseptic solution and place drapes under the woman’s buttocks and on her abdomen.</td>
<td></td>
</tr>
<tr>
<td>4. Catheterize the bladder, if necessary.</td>
<td></td>
</tr>
<tr>
<td><strong>BREECH DELIVERY</strong></td>
<td></td>
</tr>
<tr>
<td>Delivery of the Buttocks and Legs</td>
<td></td>
</tr>
</tbody>
</table>
## CHECKLIST FOR BREECH DELIVERY
(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>1. When the buttocks have entered the vagina and the cervix is fully dilated, tell the woman she can bear down with contractions.</td>
<td>![ ]</td>
</tr>
<tr>
<td>2. If the perineum is very tight, perform an episiotomy (see Checklist 5: Episiotomy and Repair).</td>
<td>![ ]</td>
</tr>
<tr>
<td>3. Let the buttocks deliver until the lower back and then the shoulder blades are seen.</td>
<td>![ ]</td>
</tr>
<tr>
<td>4. Gently hold the buttocks in one hand, but do not pull.</td>
<td>![ ]</td>
</tr>
</tbody>
</table>
| 5. If the legs do not deliver spontaneously, deliver one leg at a time:  
  - Push behind the knee to bend the leg.  
  - Grasp the ankle and deliver the foot and leg.  
  - Repeat for the other leg. | ![ ] |
| 6. Hold the baby by the hips, but do not pull. | ![ ] |

### Delivery of the Arms

7. If the arms are felt on the chest, allow them to disengage spontaneously:
   - After spontaneous delivery of the first arm, lift the buttocks toward the mother’s abdomen to enable the second arm to deliver spontaneously.
   - If the arm does not deliver spontaneously, place one or two fingers in the elbow and bend the arm, bringing the hand down over the baby’s face.

8. If the arms are stretched above the head or folded around the neck, use Lovset’s maneuver:
   - Hold the baby by the hips and turn half a circle, keeping the back uppermost.
   - Apply downward traction at the same time so that the posterior arm becomes anterior, and deliver the arm under the pubic arch by placing two fingers on the upper part of the arm.
   - Draw the arm down over the chest as the elbow is flexed, with the hand sweeping over the face.
   - To deliver the second arm, turn the baby back half a circle while keeping the back uppermost and applying downward traction to deliver the second arm in the same way under the pubic arch.

9. If the baby’s body cannot be turned to deliver the arm that is anterior first, deliver the arm that is posterior:
   - Hold and lift the baby up by the ankles.
   - Move the baby’s chest toward the woman’s inner leg to deliver the posterior shoulder.
   - Deliver the arm and hand.
   - Lay the baby down by the ankles to deliver the anterior shoulder.
   - Deliver the arm and hand.

### Delivery of the Head

Basic EmONC Course

Checklist 7: Breech Delivery

2-72
<table>
<thead>
<tr>
<th>STEP/TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver the head by the Mauriceau Smellie Veit maneuver:</td>
</tr>
<tr>
<td>- Lay baby face down with the length of its body over your hand and arm.</td>
</tr>
<tr>
<td>- Place first and third fingers of this hand on the baby’s cheekbones.</td>
</tr>
<tr>
<td>- Place second finger in the baby’s mouth to pull the jaw down and flex the head.</td>
</tr>
<tr>
<td>- Use the other hand to grasp the baby’s shoulders.</td>
</tr>
<tr>
<td>- With two fingers of this hand, gently flex the baby’s head toward the chest.</td>
</tr>
<tr>
<td>- At the same time apply downward pressure on the jaw to bring the baby’s head down until the hairline is visible.</td>
</tr>
<tr>
<td>- Pull gently to deliver the head.</td>
</tr>
<tr>
<td>- Ask an assistant to push gently above the mother’s pubic bone as the head delivers.</td>
</tr>
<tr>
<td>- Raise the baby, still astride the arm, until the mouth and nose are free.</td>
</tr>
<tr>
<td>Place the baby on a cloth on the mother abdomen and thoroughly dry the baby and assess breathing. If baby does not breathe immediately, begin resuscitative measures (see Checklist 14: Newborn Resuscitation).</td>
</tr>
<tr>
<td>Complete steps as in a normal birth including active management of the third stage of labor.</td>
</tr>
<tr>
<td>Carefully check the birth canal for tears following delivery, and repair if necessary.</td>
</tr>
<tr>
<td>Repair the episiotomy, if one was performed (see Learning Guide 5: Episiotomy and Repair).</td>
</tr>
<tr>
<td>Provide immediate postpartum and newborn care.</td>
</tr>
</tbody>
</table>

**POST-PROCEDURE TASKS**

1. Before removing gloves, dispose of waste materials in a leakproof container or plastic bag. |
2. Place all instruments in 0.5% chlorine solution for 10 minutes for decontamination. |
3. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning them inside out and place them in a leakproof container or plastic bag. |
4. Wash hands thoroughly with soap and water and dry. |
5. Record all information on record including estimated blood loss.
Checklist 7: Breech Delivery

2-74
### SKILLS PRACTICE SESSION 8: VACUUM EXTRACTION

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice vacuum extraction and achieve competency in the skills required. | This activity should be conducted in a simulated setting, using the appropriate models. | • Childbirth simulator  
• High-level disinfected or sterile surgical gloves  
• Personal protective barriers  
• Vacuum extractor |
| Participants should review Checklist 7 before beginning the activity. | | Checklist 8: Vacuum Extraction |
| The trainer should demonstrate the steps/task in the procedure of vacuum extraction for participants. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 8. | | Checklist 8: Vacuum Extraction |
| Participants should be able to perform the steps/tasks in Checklist 7 before skill competency is assessed by the trainer in the simulated setting, using Checklist 7. | | Checklist 8: Vacuum Extraction |
| Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 8. | | Checklist 8: Vacuum Extraction |

---

1 If patients are not available at clinical sites for participants to practice vacuum extraction, the skills should be taught, practiced and assessed in a simulated setting.
CHECKLIST 8:
VACUUM EXTRACTION

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

Participant/Student: ___________________________ Date Observed: ____________

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

### CHECKLIST FOR VACUUM EXTRACTION
(Some of the following steps/tasks should be performed simultaneously.)

#### GETTING READY

1. Prepare the necessary equipment.

2. Tell the woman what is going to be done, listen to her and respond attentively to her questions and concerns.

3. Provide continual emotional support and reassurance, as feasible.

4. Review to ensure that the following conditions for vacuum extraction are present:
   - Vertex presentation
   - Term fetus
   - Cervix fully dilated
   - Head at least at 0 station or no more than 2/5 palpable above the symphysis pubis

5. Make sure an assistant is available.

6. Put on personal protective barriers.

#### PREPROCEDURE TASKS

1. Wash hands thoroughly with soap and water and dry.

2. Put sterile surgical gloves on both hands.

3. Clean the vulva with antiseptic solution and place a drape under the woman’s buttocks and over her abdomen.

4. Catheterize the bladder, if necessary.

5. Check all connections on the vacuum extractor and test the vacuum on a gloved hand.
**CHECKLIST FOR VACUUM EXTRACTION**
(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>1. Assess position of fetal head by feeling the sagittal suture line and fontanelles.</td>
<td></td>
</tr>
<tr>
<td>2. Identify the posterior fontanelle.</td>
<td></td>
</tr>
<tr>
<td>3. Apply the largest cup that will fit, with the center of the cup over the flexion point, 1 cm anterior to the posterior fontanelle.</td>
<td></td>
</tr>
</tbody>
</table>
| 4. Perform an episiotomy, if necessary, for proper placement of the cup (see Learning Guide 5: Episiotomy and Repair):  
  - If episiotomy is not necessary for placement of cup, delay until the head stretches the perineum or the perineum interferes with the axis of traction. |   |
| 5. Check the application and ensure that there is no maternal soft tissue (cervix or vagina) within the rim of the cup:  
  - If necessary, release pressure and reapply cup. |   |
| 6. Have the assistant create a vacuum of 0.2 kg/cm² negative pressure with the pump and check the application of the cup. |   |
| 7. Increase vacuum to 0.8 kg/cm² negative pressure and check application of cup. |   |
| 8. After maximum negative pressure has been applied, start traction in the line of the pelvic axis and perpendicular to the cup:  
  - If the fetal head is tilted to one side or not flexed well, traction should be directed in a line that will try to correct the tilt or deflexion of the head (i.e., to one side or the other, not necessarily in the midline). |   |
| 9. With each contraction, apply traction in a line perpendicular to the plane of the cup rim:  
  - Place a gloved finger on the scalp next to the cup during traction to assess potential slippage and descent of the vertex. |   |
| 10. Between each contraction have assistant check:  
  - Fetal heart rate  
  - Application of the cup |   |
| 11. With progress, and in the absence of fetal distress, continue the “guiding” pulls for a maximum of 30 minutes. |   |
| 12. When the head has been delivered, release the vacuum, remove the cup and complete the delivery as in “assisting a normal birth” including active management of third stage of labor (see Checklist 4) |   |
| 13. Carefully check the birth canal for tears following delivery and repair if necessary. |   |
| 14. Repair the episiotomy, if one was performed (see Checklist 5: Episiotomy and Repair). |   |
| 15. Provide immediate postpartum and newborn care. |   |
### CHECKLIST FOR VACUUM EXTRACTION
(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>POST-PROCEDURE TASKS</strong></td>
<td></td>
</tr>
<tr>
<td>1. Before removing gloves, dispose of waste materials in a leakproof container or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>2. Place all instruments in 0.5% chlorine solution for 10 minutes for decontamination.</td>
<td></td>
</tr>
</tbody>
</table>
| 3. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning them inside out.  
  • If disposing of gloves, place them in a leakproof container or plastic bag. |       |
| 4. Wash hands thoroughly with soap and water and dry.                      |       |
| 5. Record all information on record including estimated blood loss.        |       |
CASE STUDY 4:
PREGNANCY-INDUCED HYPERTENSION

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 has developed.

CASE STUDY

Samia is 16 years old. She is 30 weeks pregnant and has attended the antenatal clinic three times. All findings were within normal limits until her last antenatal visit 1 week ago. At that visit, it was found that her blood pressure was 130/90 mm Hg. Her urine was negative for protein. The fetal heart sounds were normal, the fetus was active and uterine size was consistent with dates. She has come to the clinic today, as requested, for follow-up.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Samia’s physical examination will help you make a diagnosis, and why?

3. What screening procedures/laboratory tests will you include in your assessment of Samia, and why?

DIAGNOSIS (Identification of Problems/Needs)

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

- Samia’s blood pressure is 130/90 mm Hg, and she has proteinuria 1+.
- She has no symptoms suggesting severe pre-eclampsia (headache, visual disturbance, upper abdominal pain, convulsions or loss of consciousness).
- The fetus is active and fetal heart sounds are normal. Uterine size is consistent with dates.

4. Based on these findings, what is Samia’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Samia, and why?
EVALUATION

- Samia attends antenatal clinic on a twice-weekly basis, as requested.
- Her blood pressure remains the same, she continues to have proteinuria 1+, and the fetal growth is normal.
- Four weeks later, however, her blood pressure is 130/110 mm Hg and she has proteinuria 2+.
- Samia has not suffered headache, blurred vision, upper abdominal pain, convulsions or loss of consciousness and says that she feels well.
- However, she finds it very tiring to have to travel to the clinic by bus twice weekly for follow-up and wants to come only once a week.

6. Based on these findings, what is your continuing plan of care for Samia, and why?
CASE STUDY 5:
PREGNANCY-INDUCED HYPERTENSION

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 has developed.

CASE STUDY

Shakila is 23 years old. She is 37 weeks pregnant and has attended the antenatal clinic 4 times. No abnormal findings were detected during antenatal visits, the last of which was 1 week ago. Shakila has been counseled about danger signs in pregnancy and what to do about them. Her mother has brought her to the health center because she developed a severe headache and blurred vision this morning.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Shakila’s physical examination will help you make a diagnosis or identify her problems/needs, and why?

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

DIAGNOSIS (Identification of Problems/Needs)

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

- Shakila’s blood pressure is 160/110 mm Hg, and she has proteinuria 3+.
- She has a severe headache that started 3 hours ago.
- Her vision became blurred 2 hours after the onset of headache.
- She has no upper abdominal pain and has not suffered convulsions or loss of consciousness.
- Her reflexes are normal.
- The fetus is active and fetal heart sounds are normal.
- Uterine size is consistent with dates.

4. Based on these findings, what is Shakila’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Shakila, and why?
EVALUATION

- Two hours following the initiation of treatment, Shakila’s diastolic blood pressure is 100 mm Hg.
- She has not had a convulsion, but still has a headache.
- She does not have coagulopathy.
- During the past 2 hours, however, Shakila’s urinary output has dropped to 20 mL/hour.
- The fetal heart rate has ranged between 120 and 140 beats/minute.

6. Based on these findings, what is your continuing plan of care for Shakila, and why?
**SKILLS PRACTICE SESSION 9: MANAGEMENT OF SEVERE PRE-ECLAMPSIA/ECLAMPSIA**

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice management of severe pre-eclampsia and eclampsia and achieve competency in the skills required. The main emphasis in the activity is on the preparation and use of anticonvulsant drugs. | This activity should be conducted in a simulated setting with a fellow participant role-playing as a patient. | - Equipment for starting an IV infusion  
- Needles and syringes  
- Magnesium sulfate  
- Diazepam  
- Examination gloves  
- Tendon hammer  
- Calcium Gluconate |
| Participants should review Checklist 8 before beginning the activity. |  | Checklist 9: Management of Severe Pre-Eclampsia/Eclampsia |
| The trainer should demonstrate the initial steps/tasks in the management of severe pre-eclampsia/eclampsia, followed by the preparation and administration of magnesium sulfate. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 8. | The trainer should then demonstrate the use of diazepam, with particular emphasis on rectal infusion. Under the guidance of the trainer, participants should then work in pairs, using Checklist 8 to observe each other’s performance. | Checklist 9: Management of Severe Pre-Eclampsia/Eclampsia |
| Participants should be able to perform the steps/tasks in Checklist 8 before skill competency is assessed by the trainer in the simulated setting, using Checklist 8. |  | Checklist 9: Management of Severe Pre-Eclampsia/Eclampsia |
Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 8.  

Checklist 8: Management of Severe Pre-Eclampsia/Eclampsia

---

1 Patients may not be available at clinical sites for participants to practice management of severe pre-eclampsia and eclampsia; in which case, the skills required should be taught, practiced and assessed in a simulated setting.
**CHECKLIST 9: MANAGEMENT OF SEVERE PRE-ECLAMPSIA/ECLAMPSIA**

Place a “✓” in case box if step/task 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

| Participant/Student: ________________________________ | Date Observed: ________________ |

---

**CHECKLIST FOR MANAGEMENT OF SEVERE PRE-ECLAMPSIA/ECLAMPSIA**  
(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. Greet the woman respectfully and with kindness.</td>
<td></td>
</tr>
<tr>
<td>2. Tell the woman what is going to be done and encourage her to ask questions.</td>
<td></td>
</tr>
<tr>
<td>3. Listen to what the woman has to say.</td>
<td></td>
</tr>
<tr>
<td>4. Provide emotional support and reassurance.</td>
<td></td>
</tr>
<tr>
<td><strong>IMMEDIATE MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. SHOUT FOR HELP to urgently mobilize available personnel and DO NOT LEAVE the woman alone.</td>
<td></td>
</tr>
<tr>
<td>2. Turn the woman onto her left side to reduce the risk of aspiration of secretions, vomit and blood.</td>
<td></td>
</tr>
</tbody>
</table>
| 3. Ensure the woman’s airway is open:  
  • If the woman is not breathing, begin resuscitation measures.  
  • Give oxygen at 4–6 L per minute by mask or cannulae. | |
| 4. If the woman has a convulsion:  
  • Protect her from injury but do not actively restrain.  
  • Aspirate the mouth and throat, as necessary, after the convulsion. | |
| 5. Establish an IV line and give normal saline or Ringer’s lactate slowly (1 L in 6–8 hours). | |
| **ANTICONVULSIVE THERAPY (MAGNESIUM SULPHATE)** | |
| Administering Loading Dose of Magnesium Sulphate | |
| 1. Wash hands thoroughly with soap and water and dry. | |
### Checklist for Management of Severe Pre-Eclampsia/Eclampsia

(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>2. Tell the woman that she may experience a feeling of warmth when magnesium sulphate is given.</td>
<td></td>
</tr>
<tr>
<td>3. Draw up 4 grams of magnesium sulphate (20 ml of 20% solution).</td>
<td></td>
</tr>
<tr>
<td>4. Give by IV injection SLOWLY over minutes.</td>
<td></td>
</tr>
<tr>
<td>5. Draw up 10 grams of magnesium sulphate (20 ml of 50% solution).</td>
<td></td>
</tr>
<tr>
<td>6. Draw up 1 ml of 2% lignocaine IN THE SAME SYRINGE.</td>
<td></td>
</tr>
<tr>
<td>7. Give 5 grams (10 ml) by DEEP IM injection in upper outer quadrant of one buttock.</td>
<td></td>
</tr>
<tr>
<td>8. Replace the needle on the syringe with another sterile one.</td>
<td></td>
</tr>
<tr>
<td>9. Inject the remaining 5 grams by DEEP IM injection into the other buttock.</td>
<td></td>
</tr>
<tr>
<td>10. Disposing of needle and syringe in puncture proof container.</td>
<td></td>
</tr>
<tr>
<td>11. Wash hands thoroughly with soap and water and dry.</td>
<td></td>
</tr>
<tr>
<td>12. If convulsions recur AFTER 15 minutes:</td>
<td></td>
</tr>
<tr>
<td>• Draw up 2 grams of magnesium sulphate 50% solution (4 ml).</td>
<td></td>
</tr>
<tr>
<td>• Give by IV injection SLOWLY over 5 minutes.</td>
<td></td>
</tr>
</tbody>
</table>

**Administering Maintenance Dose of Magnesium Sulphate**

| 13. Give 5 grams of magnesium sulphate (10 mL of 50% solution), together with 1 mL of 2% lignocaine in the same syringe, by DEEP IM injection into alternate buttocks (every 4 hours). |       |

| 14. Before repeat administration check that: |       |
| • Respiratory rate is at least 16 per minute. |       |
| • Patellar reflexes are present. |       |
| • Urinary output is at least 30 mL per hour over 4 hours. |       |

| 15. WITHHOLD or DELAY drug if: |       |
| • Respiratory rate falls below 16 per minute. |       |
| • Patellar reflexes are absent. |       |
| • Urinary output falls below 30 ml per hour over the preceding 4 hours. |       |

| 16. If respiratory arrest occurs: |       |
| • Assist ventilation. |       |
| • Give calcium gluconate 1 g (10 ml of 10% solution) by IV injection. SLOWLY until respiration begins. |       |

**Monitoring for Toxicity**

| 17. Count respiration rate for one minute every hour. |       |
| 18. Check patellar reflexes every hour. |       |
| 19. Insert an indwelling urinary catheter and measure urine output hourly. |       |
### Checklist for Management of Severe Pre-Eclampsia/Eclampsia

(All of the following steps/tasks should be performed simultaneously.)

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. Record drug administration and findings on the woman’s record.</td>
<td></td>
</tr>
</tbody>
</table>

### Anticonvulsive Therapy (Diazepam)

**Note:** Diazepam should be used ONLY if magnesium sulphate is not available.

#### Administering Loading Dose of Diazepam

1. Wash hands thoroughly with soap and water and dry.
2. Draw up 10 mg of diazepam.
3. Give by IV injection SLOWLY over 2 minutes.
4. Dispose of needle and syringe in puncture-proof container.
5. Wash hands thoroughly with soap and water and dry.
6. If convulsions recur, repeat loading dose.

#### Administering Maintenance Dose of Diazepam

7. Give 40 mg of diazepam in 500 mL of IV fluid (normal saline or Ringer’s lactate), at a rate that keeps the woman sedated but rousable.
8. If respiratory depression occurs (may occur if dose exceeds 30 mg in 1 hour):
   - Assist ventilation, if necessary

#### Administering Diazepam Rectally (when IV access is not possible)

9. Wash hands thoroughly with soap and water and dry.
10. Draw up 20 mg of diazepam in a 10 mL syringe.
11. Remove the needle from the syringe.
12. Lubricate the barrel of the syringe.
13. Insert the syringe into the rectum to half its length.
14. Discharge the contents of the syringe into the rectum.
15. Leave the syringe in place and hold the buttocks together for 10 minutes.
16. If convulsions are not controlled within 10 minutes, administer an additional 10 mg of diazepam per hour.
17. Record drug administration and findings on the woman’s records.
CASE STUDY 6: FEVER AFTER CHILDBIRTH

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 has developed.

CASE STUDY

Lailuma is a 35-year-old para three who gave birth at home 48 hours ago. Her pregnancy was term and her birth was attended by a traditional birth attendant (TBA). Labor lasted 2 days and the TBA inserted herbs into Lailuma’s vagina to help speed up the birth. The baby breathed spontaneously and appears healthy. Lailuma’s mother-in-law has brought her to the health center today because she has had fever and chills for the past 24 hours.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Lailuma’s physical examination will help you make a diagnosis or identify her problems/needs, and why?

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

DIAGNOSIS (Identification of Problems/Needs)

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

- Lailuma’s temperature is 39.8º C, her pulse rate is 136 beats/minute, her blood pressure is 100/70 mm Hg and her respiration rate is 24 breaths/minute.
- She is pale and lethargic and slightly confused.
- She has lower abdominal pain, her uterus is soft and tender, and she has foul-smelling vaginal discharge.
- It is not known whether the placenta was complete.
- Lailuma is fully immunized against tetanus.

4. Based on these findings, what is Lailuma’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Lailuma, and why?
EVALUATION

Thirty-six hours after initiation of treatment, you find the following:

- Lailuma’s temperature is 38º C, her pulse rate is 96 beats/minute, her blood pressure is 110/70 mm Hg and her respiration rate is 20 breaths/minute.
- She is less pale and no longer confused.

6. Based on these findings, what is your continuing plan of care for Lailuma, and why?
CASE STUDY 7:
VAGINAL BLEEDING AFTER CHILDBIRTH

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 has developed.

CASE STUDY

Alisha is a 30-year-old para four. She gave birth at the health center to a full-term healthy baby weighing 4.2 kg. She received active management of the third stage and the placenta was delivered 5 minutes later, without complication. Half an hour after delivery, however, Alisha reports that she has heavy vaginal bleeding.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

1. What will you include in your initial assessment of Alisha, and why?
2. What particular aspects of Alisha’s physical examination will help you make a diagnosis immediately or identify her problems/needs, and why?
3. What screening procedures/laboratory tests will you include (if available) in your assessment of Alisha, and why?

DIAGNOSIS (Identification of Problems/Needs)

You have completed your assessment of Alisha and your main findings include the following:
- Alisha’s pulse rate is 88 beats/minute, her blood pressure is 110/80 mm Hg, her respiration rate is 18 breaths/minute and her temperature is 37º C.
- Her uterus is firm and well-contracted. The placenta is complete.
- She has no perineal trauma.
- Examination of the vagina and cervix is difficult because she continues to have heavy vaginal bleeding; therefore, tears of the cervix and vagina have not yet been ruled out.

4. Based on these findings, what is Alisha’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Alisha, and why?
EVALUATION

- One hour after childbirth, Alisha has a cervical tear repaired.

6. Based on these findings, what is your continuing plan of care for Alisha, and why?
The purpose of this activity is to enable participants to practice bimanual compression of the uterus and achieve competency in the skills required.

This activity should be conducted in a simulated setting, using the appropriate models.

Participants should review Checklist 9 before beginning the activity.

The trainer should demonstrate the steps/tasks in the procedure of bimanual compression of the uterus for participants. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 9.

Participants should be able to perform the steps/tasks in Checklist 9 before skill competency is assessed by the trainer in the simulated setting, using Checklist 9 to assess each other’s performance.

Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 9.¹

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¹ If patients are not available at clinical sites for participants to practice the procedure of bimanual compression of the uterus, the skills should be taught, practiced and assessed in a simulated setting.
**CHECKLIST 10:**
**BIMANUAL COMPRESSION OF THE UTERUS**

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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

Participant/Student: ___________________________ Date Observed: __________________

<table>
<thead>
<tr>
<th>CHECKLIST FOR BIMANUAL COMPRESSION OF THE UTERUS (Some of the following steps/tasks should be performed simultaneously)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STEP/TASK</strong></td>
</tr>
<tr>
<td><strong>GETTING READY</strong></td>
</tr>
<tr>
<td>1. Tell the woman what is going to be done, listen to her and respond attentively to her questions and concerns.</td>
</tr>
<tr>
<td>2. Provide continual emotional support and reassurance, as feasible.</td>
</tr>
<tr>
<td>3. Put on personal protective barriers.</td>
</tr>
<tr>
<td><strong>BIMANUAL COMPRESSION</strong></td>
</tr>
<tr>
<td>1. Wash hands thoroughly with soap and water and dry.</td>
</tr>
<tr>
<td>2. Put sterile surgical gloves on both hands.</td>
</tr>
<tr>
<td>3. Clean the vulva and perineum with antiseptic solution and place drapes under the woman’s buttocks and over her abdomen.</td>
</tr>
<tr>
<td>4. Insert one hand into the vagina and form a fist.</td>
</tr>
<tr>
<td>5. Place the fist into the anterior vaginal fornix and apply pressure against the anterior wall of the uterus.</td>
</tr>
<tr>
<td>6. Place the other hand on the abdomen behind the uterus.</td>
</tr>
<tr>
<td>7. Press the abdominal hand deeply into the abdomen and apply pressure against the posterior wall of the uterus.</td>
</tr>
<tr>
<td>8. Maintain compression until bleeding is controlled and the uterus contracts.</td>
</tr>
<tr>
<td><strong>POST-PROCEDURE TASKS</strong></td>
</tr>
<tr>
<td>1. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning them inside out and place them in a leakproof container or plastic bag.</td>
</tr>
<tr>
<td>STEP/TASK</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2. Wash hands thoroughly with soap and water and dry.</td>
</tr>
<tr>
<td>3. Monitor vaginal bleeding and take the woman’s vital signs:</td>
</tr>
<tr>
<td>• Every 15 minutes for 1 hour</td>
</tr>
<tr>
<td>• Then every 30 minutes for 2 hours</td>
</tr>
<tr>
<td>4. Make sure that the uterus is firmly contracted.</td>
</tr>
<tr>
<td>5. Complete records.</td>
</tr>
</tbody>
</table>
## SKILLS PRACTICE SESSION 11:
### COMPRESSION OF THE ABDOMINAL AORTA

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this activity is to enable participants to practice compression of the abdominal aorta and achieve competency in the skills required.</td>
<td>This activity should be conducted in a simulated setting, using the appropriate models.</td>
<td>- Childbirth simulator</td>
</tr>
<tr>
<td></td>
<td>Participants should review Checklist 10 before beginning the activity.</td>
<td><strong>Checklist 10</strong>: Compression of the Abdominal Aorta</td>
</tr>
<tr>
<td></td>
<td>The trainer should demonstrate the steps/tasks in the procedure of compression of the abdominal aorta for participants. Under the guidance of the trainer, participants should then work in groups of three to practice the steps/task; while one participant performs the procedure on another, the third participant should use Checklist 10 to observe performance. Participants should then reverse roles until each has had an opportunity to perform the procedure and be observed.</td>
<td><strong>Checklist 10</strong>: Compression of the Abdominal Aorta</td>
</tr>
<tr>
<td></td>
<td>Participants should be able to perform the steps/tasks in Checklist 10 before skill competency is assessed by the trainer in the simulated setting, using Checklist 10.</td>
<td><strong>Checklist 10</strong>: Compression of the Abdominal Aorta</td>
</tr>
<tr>
<td></td>
<td>Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 10.</td>
<td><strong>Checklist 10</strong>: Compression of the Abdominal Aorta</td>
</tr>
</tbody>
</table>

1 If patients are not available at clinical sites for participants to practice the procedure of compression of the abdominal aorta, the skills should be taught, practiced and assessed in a simulated setting.
CHECKLIST 11:
COMPRESSION OF THE ABDOMINAL AORTA

Place a “✓” in case box if step/task 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

Participant/Student: __________________________________________ Date Observed: ______________

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>GETTING READY</td>
<td></td>
</tr>
<tr>
<td>1. Tell the woman what is going to be done, listen to her and respond attentively to her questions and concerns.</td>
<td></td>
</tr>
<tr>
<td>2. Provide continual emotional support and reassurance, as feasible.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Steps 1 and 2 should be implemented at the same time as the following steps.

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPRESSION OF THE ABDOMINAL AORTA</td>
<td></td>
</tr>
<tr>
<td>1. Place a closed fist just above the umbilicus and slightly to the left.</td>
<td></td>
</tr>
<tr>
<td>2. Apply downward pressure over the abdominal aorta directly through the abdominal wall.</td>
<td></td>
</tr>
<tr>
<td>3. With the other hand, palpate the femoral pulse to check the adequacy of compression:</td>
<td></td>
</tr>
<tr>
<td>• If the pulse is palpable during compression, the pressure is inadequate.</td>
<td></td>
</tr>
<tr>
<td>• If the pulse is not palpable during compression, the pressure is adequate.</td>
<td></td>
</tr>
<tr>
<td>4. Maintain compression until bleeding is controlled.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP/TASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>POST-PROCEDURE TASKS</td>
<td></td>
</tr>
<tr>
<td>1. Monitor vaginal bleeding and take the woman’s vital signs:</td>
<td></td>
</tr>
<tr>
<td>• Every 15 minutes for 1 hour</td>
<td></td>
</tr>
<tr>
<td>• Then every 30 minutes for 2 hours</td>
<td></td>
</tr>
<tr>
<td>2. Make sure that the uterus is firmly contracted.</td>
<td></td>
</tr>
</tbody>
</table>
## SKILLS PRACTICE SESSION 12:
### MANUAL REMOVAL OF PLACENTA

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice manual removal of the placenta and achieve competency in the skills required. | This activity should be conducted in a simulated setting, using the appropriate models. | - Childbirth simulator  
- High-level disinfected or sterile surgical gloves  
- Personal protective barriers  
- Receptacle for placenta |
| Participants should review Checklist 11 before beginning the activity. |  |
| The trainer should demonstrate the steps/tasks in the procedure of manual removal of the placenta for participants. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 11. |  |
| Participants should be able to perform the steps/tasks in Checklist 11 before skill competency is assessed by the trainer in a simulated setting, using Checklist 11. |  |
| Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 11.¹ |  |

¹ If patients are not available at clinical sites for participants to practice the procedure of manual removal of the placenta, the skills should be taught, practiced and assessed in a simulated setting.
### CHECKLIST FOR MANUAL REMOVAL OF PLACENTA

(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 necessary equipment.</td>
<td></td>
</tr>
<tr>
<td>2. Tell the woman what is going to be done, listen to her and respond</td>
<td></td>
</tr>
<tr>
<td>attentively to her questions and concerns.</td>
<td></td>
</tr>
<tr>
<td>3. Provide continual emotional support and reassurance, as feasible.</td>
<td></td>
</tr>
<tr>
<td>4. Start IV of normal saline or Ringer’s lactate.</td>
<td></td>
</tr>
<tr>
<td>5. Ask the woman to empty her bladder or insert a catheter, if necessary.</td>
<td></td>
</tr>
<tr>
<td>6. Give anesthesia (IV/IM 10 mg diazepam).</td>
<td></td>
</tr>
<tr>
<td>7. Give a single dose of prophylactic antibiotics:</td>
<td></td>
</tr>
<tr>
<td>● Ampicillin 2 g IV PLUS metronidazole 500 mg IV, OR</td>
<td></td>
</tr>
<tr>
<td>● Cefazolin 1 g IV PLUS metronidazole 500 mg IV</td>
<td></td>
</tr>
<tr>
<td>8. Put on personal protective barriers.</td>
<td></td>
</tr>
<tr>
<td><strong>MANUAL REMOVAL OF PLACENTA</strong></td>
<td></td>
</tr>
<tr>
<td>1. Wash hands and forearms thoroughly with soap and water and dry.</td>
<td></td>
</tr>
<tr>
<td>2. Put high-level disinfected or sterile surgical gloves on both hands.</td>
<td></td>
</tr>
<tr>
<td>(Note: elbow-length gloves should be used, if available.)</td>
<td></td>
</tr>
<tr>
<td>3. Clean vulva and perineal area and place sterile drape beneath the</td>
<td></td>
</tr>
<tr>
<td>woman’s buttocks.</td>
<td></td>
</tr>
<tr>
<td>4. Ensure that the bladder is empty.</td>
<td></td>
</tr>
<tr>
<td>5. Hold the umbilical cord with a clamp.</td>
<td></td>
</tr>
<tr>
<td>6. Pull the cord gently until it is parallel to the floor.</td>
<td></td>
</tr>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td>-----------</td>
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</tr>
<tr>
<td>7. Place the fingers of one hand into the vagina and into the uterine cavity, following the direction of the cord until the placenta is located.</td>
<td></td>
</tr>
<tr>
<td>8. When the placenta has been located, let go of the cord and move that hand onto the abdomen to support the fundus abdominally and to provide counter-traction to prevent uterine inversion.</td>
<td></td>
</tr>
<tr>
<td>9. Move the fingers of the hand in the uterus laterally until the edge of the placenta is located.</td>
<td></td>
</tr>
<tr>
<td>10. Keeping the fingers tightly together, ease the edge of the hand gently between the placenta and the uterine wall, with the palm facing the placenta.</td>
<td></td>
</tr>
</tbody>
</table>
| 11. Gradually move the hand back and forth in a smooth lateral motion until the whole placenta is separated from the uterine wall:  
   - If the placenta does not separate from the uterine wall by gentle lateral movement of the fingers at the line of cleavage, suspect placenta accreta and arrange for surgical intervention. |   |
| 12. When the placenta is completely separated:  
   - Palpate the inside of the uterine cavity to ensure that all placental tissue has been removed.  
   - Slowly withdraw the hand from the uterus bringing the placenta with it.  
   - Continue to provide counter-traction to the fundus by pushing it in the opposite direction of the hand that is being withdrawn. |   |
| 13. Give oxytocin 10 IU IM. |   |
| 14. Have an assistant massage the fundus to encourage uterine contraction. |   |
| 15. If bleeding stops give IV fluids slowly for at least 1 hour after removal of placenta. |   |
| 16. If there is continued heavy bleeding, give ergometrine 0.2 mg IM and oxytocin 20 units in 1 L IV fluid (normal saline or Ringer’s lactate) at 60 drops/minute and refer. |   |
| 17. Examine the uterine surface of the placenta to ensure that it is complete. |   |
| 18. Examine the woman carefully and repair any tears to the cervix or vagina, or repair episiotomy. |   |

**POST-PROCEDURE TASKS**

<table>
<thead>
<tr>
<th>TASK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning them inside out and place them in a leakproof container or plastic bag.</td>
<td></td>
</tr>
<tr>
<td>2. Wash hands thoroughly with soap and water and dry.</td>
<td></td>
</tr>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>3. Monitor vaginal bleeding and take the woman’s vital signs:</td>
<td></td>
</tr>
<tr>
<td>• Every 15 minutes for 1 hour</td>
<td></td>
</tr>
<tr>
<td>• Then every 30 minutes for 2 hours</td>
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</tr>
<tr>
<td>4. Make sure that the uterus is firmly contracted.</td>
<td></td>
</tr>
<tr>
<td>5. Complete patient records with details of the procedure and drugs</td>
<td></td>
</tr>
<tr>
<td>given.</td>
<td></td>
</tr>
</tbody>
</table>
SKILLS PRACTICE SESSION 13: MANAGING PROLAPSED CORD

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable learners to practice management of prolapsed cord and achieve competency in the procedure. | This activity should be conducted in a simulated setting, using the appropriate models. | • High-level disinfected or sterile surgical gloves  
• Pelvic and fetal models |

Learners should review Checklist 12 before beginning the activity.  

The teacher should demonstrate the steps/task in the management of prolapsed cord for learners. Under the guidance of the teacher, learners should then work in pairs to practice the steps/tasks and observe each other's performance, using Checklist 12.  

Learners should be able to perform the steps/tasks in Checklist 12 before skill competency is assessed in the simulated setting, using Checklist 12.  

Finally, following supervised practice at a clinical site, the teacher should assess the skill competency of each learner, using Checklist 12.¹  

¹ If patients are not available at clinical sites to practice management of prolapsed cord, the skills should be taught, practiced and assessed in a simulated setting.
**CHECKLIST 13:**
**MANAGING PROLAPSED CORD**

Place a “✓” in case box if step/task is performed satisfactorily, an “X” 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 learner during evaluation by teacher

**Participant/Student:** ___________________________  **Date Observed:** ____________

---

**CHECKLIST FOR MANAGING PROLAPSED CORD**
*(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>GENERAL MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Tell the woman (and her support person) what is going to be done and encourage them to ask questions.</td>
<td></td>
</tr>
<tr>
<td>2. Provide continual emotional support and reassurance, as feasible.</td>
<td></td>
</tr>
<tr>
<td>3. Give oxygen 4–6 L/minute by face mask or nasal cannula.</td>
<td></td>
</tr>
<tr>
<td><strong>SKILL/ACTIVITY PERFORMED SATISFACTORILY</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SPECIFIC MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Place one sterile gloved hand into the vagina and push the presenting part upward.</td>
<td></td>
</tr>
<tr>
<td>2. Hold the presenting part firmly out of the pelvic brim with the abdominal hand until woman has been prepared for cesarean section.</td>
<td></td>
</tr>
<tr>
<td>3. Another option is to turn the woman into knee – chest position (ensuring privacy) and wearing high-level disinfected gloves, insert hand into vagina and push presenting part up to decrease pressure on cord – keep hand on presenting part until cesarean section can be performed</td>
<td></td>
</tr>
<tr>
<td><strong>SKILL/ACTIVITY PERFORMED SATISFACTORILY</strong></td>
<td></td>
</tr>
<tr>
<td><strong>POST-PROCEDURE TASKS</strong></td>
<td></td>
</tr>
<tr>
<td>1. Remove glove and discard them in a leakproof container or plastic bag if disposing of or decontaminate them in 0.5% chlorine solution if reusing.</td>
<td></td>
</tr>
<tr>
<td>2. Wash hands thoroughly and dry.</td>
<td></td>
</tr>
</tbody>
</table>

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Basic EmONC Course  
Checklist 13: Managing Prolapsed Cord  
2-111
<table>
<thead>
<tr>
<th>SKILL/A CTIVITY PERFORMED SATISFACTORILY</th>
</tr>
</thead>
</table>

**CHECKLIST FOR MANAGING PROLAPSED CORD**
(Some of the following steps/tasks should be performed simultaneously.)
SKILLS PRACTICE SESSION 14:
NEWBORN RESUSCITATION

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable participants to practice newborn resuscitation using a bag and mask and achieve competency in the skills required. | This activity should be conducted in a simulated setting, using the appropriate model. | • Table  
• Newborn resuscitation model  
• Cloth or baby blanket to wrap model  
• Suction apparatus  
• Self-inflating bag (newborn)  
• Infant face masks size 0 and size 1  
• Clock |

Participants should review Checklist 13 before beginning the activity.

The trainer should demonstrate the steps/tasks in the procedure of newborn resuscitation using a bag and mask. Under the guidance of the trainer, participants should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 13.

Participants should be able to perform the steps/tasks in Checklist 13, before skill competency is assessed by the trainer in the simulated setting, using Checklist 13.

Finally, following supervised practice at a clinical site, the trainer should assess the skill competency of each participant, using Checklist 13.

Checklist 13: Newborn Resuscitation

Checklist 13: Newborn Resuscitation

Checklist 13: Newborn Resuscitation

Checklist 13: Newborn Resuscitation
**Note:** Practice at a clinical site will depend on the availability of cases; if practice at a clinical site is not possible, the skill should be taught, practiced and assessed in a simulated setting, as described above.
CHECKLIST 14:  
NEWBORN RESUSCITATION

<table>
<thead>
<tr>
<th>GETTING READY</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dry the baby, remove the wet cloth, and wrap the baby in a dry, warm cloth.</td>
<td></td>
</tr>
<tr>
<td>2. Place the baby on its back on a clean, warm surface and keep covered except for the face and chest.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESUSCITATION USING BAG AND MASK</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Position the head in a slightly extended position to open the airway.</td>
<td></td>
</tr>
<tr>
<td>2. Clear the airway by suctioning the <strong>mouth</strong> first and then the <strong>nose</strong>:</td>
<td></td>
</tr>
<tr>
<td>- Introduce catheter into the baby’s mouth for approximately 3 cm and suction while withdrawing catheter;</td>
<td></td>
</tr>
<tr>
<td>- Introduce catheter into each nostril and suction while withdrawing catheter;</td>
<td></td>
</tr>
<tr>
<td>- Be thorough with suctioning if there is blood or meconium in the baby’s mouth and/or nose;</td>
<td></td>
</tr>
<tr>
<td>- If the baby is still not breathing after the airway has been suctioned, start ventilating.</td>
<td></td>
</tr>
<tr>
<td>3. Quickly recheck the position of the baby’s head to make sure that the neck is slightly extended.</td>
<td></td>
</tr>
<tr>
<td>4. Place the mask on the baby’s face so that it covers the chin, mouth and nose to form a seal (size 1 mask for normal weight newborn and size 0 for a small newborn)</td>
<td></td>
</tr>
<tr>
<td>5. Squeeze the bag with two fingers only or with the whole hand, depending on the size of the bag.</td>
<td></td>
</tr>
<tr>
<td>6. Check the seal by ventilating two or three times and observing the rise of the chest.</td>
<td></td>
</tr>
<tr>
<td>7. If the baby’s chest is rising:</td>
<td></td>
</tr>
<tr>
<td>- Ventilate at a rate of 40 breaths per minute.</td>
<td></td>
</tr>
<tr>
<td>8. If the baby’s chest is not rising:</td>
<td></td>
</tr>
</tbody>
</table>
1. Check the position of the head again to make sure the neck is slightly extended;
2. Reposition the mask on the baby’s face to improve the seal between mask and face;
3. Squeeze the bag with the whole hand to increase ventilation pressure;
4. Repeat suction of mouth and nose to remove mucus, blood or meconium from the airway.

9. Ventilate for 1 minute, using oxygen, if available, and then stop and quickly assess the baby for spontaneous breathing and color:
   - If breathing is normal (30–60 breaths per minute), stop ventilating and place the baby in skin-to-skin contact with the mother;
   - If the baby is gasping, not breathing, or the respiratory rate is less than 30 breaths per minute, continue ventilating.

10. If the baby starts crying, stop ventilating and observe the baby’s respiratory rate for five minutes after crying stops:
    - If breathing is normal (30–60 breaths per minute), stop ventilating;
    - If the baby is gasping, not breathing, or the respiratory rate is less than 30 breaths per minute, continue ventilating.

11. If the baby is not breathing regularly after 20 minutes of ventilation:
    - Continue ventilation with oxygen if available
    - Organize transfer and refer baby to a tertiary care center, if possible

12. If there is no gasping or breathing at all after 20 minutes of ventilation, stop ventilating:
    - Provide emotional support to mother and family.

**CARE AFTER SUCCESSFUL RESUSCITATION**

1. Keep the baby skin-to-skin with the mother until the baby’s condition is stable.
2. Monitor the baby’s respiratory rate and observe for other signs of illness.
3. Provide reassurance to the mother.

**POST-RESUSCITATION TASKS**

1. Soak suction catheters in 0.5% chlorine solution for 10 minutes for decontamination.
2. Wipe exposed surfaces of the bag and mask with a gauze pad soaked in 60–90% alcohol or 0.5% chlorine solution and rinse immediately.
3. Wash hands thoroughly with soap and water and dry with a clean, dry cloth (or air dry).
4. Complete records with details of resuscitation and condition of newborn.
## SKILLS PRACTICE SESSION 15:
MANAGING SHOULDERS DYSTOCIA

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>INSTRUCTIONS</th>
<th>RESOURCES</th>
</tr>
</thead>
</table>
| The purpose of this activity is to enable learners to practice management of shoulder dystocia and achieve competency in the procedure. | This activity should be conducted in a simulated setting, using the appropriate models. | • High-level disinfected or sterile surgical gloves  
• Pelvic and fetal models |

Learners should review Checklist 14 before beginning the activity.

The teacher should demonstrate the steps/task in the management of shoulder dystocia for learners. Under the guidance of the teacher, learners should then work in pairs to practice the steps/tasks and observe each other’s performance, using Checklist 14.

Learners should be able to perform the steps/tasks in Checklist 17.1 before skill competency is assessed in the simulated setting, using Checklist 14.

Finally, following supervised practice at a clinical site, the teacher should assess the skill competency of each learner, using Checklist 14.

---

1 If patients are not available at clinical sites to practice management of shoulder dystocia, the skills should be taught, practiced and assessed in a simulated setting.
CHECKLIST 15:
MANAGING SHOULDER DYSTOCIA

Place a “✓” in case box if step/task 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 learner during evaluation by teacher

Participant/Student: __________________________ Date Observed: __________________

<table>
<thead>
<tr>
<th>CHECKLIST FOR MANAGING SHOULDER DYSTOCIA</th>
<th>(Some of the following steps/tasks should be performed simultaneously.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td><strong>GENERAL MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Tells the woman (and her support person) what is going to be done and encourage them to ask questions.</td>
<td></td>
</tr>
<tr>
<td>2. Shout for help.</td>
<td></td>
</tr>
<tr>
<td>3. Provides continual emotional support and reassurance, as feasible.</td>
<td></td>
</tr>
<tr>
<td><strong>SKILL/ACTIVITY PERFORMED SATISFACTORILY</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SPECIFIC MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Make an adequate episiotomy. (See Checklist 5: Episiotomy and Repair.)</td>
<td></td>
</tr>
<tr>
<td>2. Asks the woman to flex both thighs, bringing her knees as far up as possible toward her chest.</td>
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</tr>
<tr>
<td>3. Wearing high-level disinfected gloves, apply firm downward pressure on the fetal head to move shoulder that is anterior under symphisis pubis.</td>
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</tr>
<tr>
<td>4. At the same time, have an assistant apply suprapubic pressure downward to assist delivery.</td>
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</tr>
<tr>
<td>5. If the shoulder is still not delivered, wearing high-level disinfected gloves, insert a hand into vagina and apply pressure to shoulder that is anterior to rotate shoulder and decrease shoulder diameter.</td>
<td></td>
</tr>
<tr>
<td>6. If necessary, apply pressure to shoulder that is posterior in the direction of sternum.</td>
<td></td>
</tr>
<tr>
<td>7. If the shoulder is not delivered, insert a hand into vagina and grasp the humerus and sweep the arm across the chest.</td>
<td></td>
</tr>
<tr>
<td>STEP/TASK</td>
<td>CASES</td>
</tr>
<tr>
<td>-----------</td>
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</tr>
<tr>
<td><strong>SKILL/ACTIVITY PERFORMED SATISFACTORILY</strong></td>
<td></td>
</tr>
<tr>
<td><strong>POST-PROCEDURE TASKS</strong></td>
<td></td>
</tr>
<tr>
<td>1. Removes gloves and discards them in a leakproof container or plastic bag if disposing of or decontaminate them in 0.5% chlorine solution if reusing.</td>
<td></td>
</tr>
<tr>
<td>2. Wash hands thoroughly.</td>
<td></td>
</tr>
<tr>
<td><strong>SKILL/ACTIVITY PERFORMED SATISFACTORILY</strong></td>
<td></td>
</tr>
</tbody>
</table>
MIDCOURSE KNOWLEDGE ASSESSMENT QUESTIONNAIRE:

INFECTION PREVENTION PRACTICES

1. HIV/HBV/HCV can be transmitted from clients to health care workers through:
   a) Contaminated needles or other sharp instruments that pricked the health worker’s skin
   b) Splashes of contaminated blood or body fluids to health workers clothes
   c) Skin contact with clients
   d) Touching HIV/HBV/HCV clients clothes

2. The single-most practical procedure for preventing the spread of infection is
   a) Wearing gloves
   b) Wearing a mask
   c) Hand washing
   d) Cleaning skin with alcohol before injections

ANTENATAL CARE

3. A history of past pregnancies should be obtained at:
   a) The first antenatal visit
   b) The second antenatal visit
   c) The third antenatal visit
   d) Every antenatal visit

4. Focused antenatal care should ideally
   a) Be provided by physicians
   b) Be individualized and woman-centered
   c) Be provided monthly after the fourth month and twice per week during the last 2 months
   d) Be provided by traditional birth attendants

VAGINAL BLEEDING IN EARLY PREGNANCY

5. The immediate management of ectopic pregnancy involves
   a) Cross-matching blood and arranging for immediate laparotomy
   b) Making sure that blood is available for transfusion before surgery is performed
   c) Observing the woman for signs of improvement
   d) Surgery performed only when patient’s condition deteriorated
6. The MVA procedure is complete when
   a) the wall of the uterus feels smooth
   b) the vacuum in the syringe decreases
   c) red or pink foam and no more tissue is visible in the canula
   d) the uterus relaxes

Rapid Initial Assessment and Management of Shock

7. Rapid initial assessment should be carried out
   a) Only on women who present with abdominal pain and vaginal bleeding
   b) Only on women who present with abdominal pain
   c) Only on women who present with vaginal bleeding
   d) On all women of childbearing age who present with a problem

8. A woman who suffers shock as a result of an obstetric emergency may have
   a) A weak, fast pulse
   b) High blood pressure
   c) Normal breathing
   d) A good urine output

Childbirth Care

9. The Partograph is a record of
   a) Labor for women who experience problems
   b) Observations during labor with the main element being the plotting of cervical dilatation
   c) Maternal well-being
   d) Fetal well-being

10. Plotting on the partograph should begin
    a) In the active phase of the first stage of labor
    b) In the latent phase
    c) When the cervix reaches full dilatation
    d) When the woman is admitted to the labor ward

11. During the active phase of labor the woman should:
    a) Be encouraged to take light meals/food as tolerated
    b) Be given fluids only
    c) Not be given food or fluids
    d) Be started on IV normal saline

12. Before applying controlled cord traction during active management of the third stage of labor
    a) Oxytocin is administered intramuscularly and the attendant waits for the uterus to contract
    b) The mother is asked to push
    c) Pressure is applied to the fundus
    d) The bladder is catheterized
13. Active management of the third stage of labor is believed to
   a) Reduce maternal effort
   b) Shorten the third stage of labor and reduce blood loss
   c) Minimize the risk of infection during labor
   d) Help rapid recovery of mother

14. For repair of vaginal and perineal tears, local anaesthetic should be infiltrated
   a) Only beneath the vaginal mucosa
   b) Only beneath the skin of the perineum
   c) Only deeply into the perineal muscle
   d) Beneath the vaginal mucosa, skin of the perineum and deep into the perineal muscle

**UNSATISFACTORY PROGRESS OF LABOR**

15. Cervical dilatation plotted to the right of the alert line on the partograph indicates
   a) Satisfactory progress of labor
   b) Unsatisfactory progress of labor
   c) The end of the latent phase
   d) The end of the active phase

16. Condition for vacuum extraction include:
   a) A preterm fetus
   b) A fully dilated cervix
   c) Fetal head is 3/5 or more above the symphysis pubis
   d) A brow presentation

17. Signs of impending uterine rupture include
   a) Normal maternal pulse
   b) Persistent abdominal pain and suprapubic tenderness with signs of fetal distress
   c) Fetal heart rate increase at every contraction
   d) Blood pressure increase

**MALPOSITIONS AND MALPRESENTATIONS**

18. When assessing fetal presentation in labor
   a) the examination should be done during a contraction
   b) vaginal examinations should not be performed
   c) examination should be performed every 30 minutes during the active phase
   d) the woman should be resting in a supine position and the examination should be done
      between contractions
19. External rotation of the fetal head indicates that the shoulders are:
   a) in the anterior diameter of the pelvic outlet
   b) in the posterior diameter of the pelvic outlet
   c) in the antero-posterior diameter of the pelvic outlet
   d) stuck behind the symphysis pubis

20. In performing a breech delivery
   a) when the buttocks are seen, traction should be applied
   b) meconium is a sign of fetal distress
   c) suprapubic pressure should be avoided during delivery of the head
   d) the newborn should be held by the hips, not by the flank or abdomen

HEADACHE, BLURRED VISION, CONVULSIONS OR LOSS OF CONSCIOUSNESS, ELEVATED BLOOD PRESSURE

21. Diastolic blood pressure 90 mmHg or more before 20 weeks of gestation is symptomatic of
   a) Mild Pre-Eclampsia
   b) Chronic Hypertension
   c) Superimposed mild pre-eclampsia
   d) Pregnancy-induced hypertension

22. Elevated blood pressure and proteinuria in pregnancy define
   a) Pre-Eclampsia
   b) Chronic hypertension
   c) Pyelonephritis
   d) None of the above

23. Eclamptic fits may occur in the
   a) antepartum period only
   b) intrapartum period only
   c) postpartum period only
   e) antepartum, intrapartum or postpartum periods

24. Pulmonary edema in a woman who has Pre-Eclampsia should be considered a sign of
   a) Tuberculosis
   b) Mild Pre-eclampsia
   c) Severe Pre-Eclampsia
   d) Pneumonia

25. The loading dose of Magnesium sulfate is given by
   a) IV over 5 minutes, followed by deep IM injection into each buttock
   b) IV over 5 minutes, followed by deep IM injection into one buttock
   c) Simultaneously IV and IM injections
   d) IV bolus, followed by deep IM injection into each buttock
26. An antihypertensive drug should be given for hypertension in severe Pre-Eclampsia or Eclampsia if diastolic blood pressure is
   a) Between 100 and 110 mmHg
   b) 110 mmHg or more
   c) 115 mmHg or more
   d) 120 mmHg or more

**VAGINAL BLEEDING AFTER CHILDBIRTH**

27. Postpartum hemorrhage is defined as
   a) vaginal bleeding of any amount after childbirth
   b) sudden bleeding after childbirth
   c) vaginal bleeding in excess of 300 mL after childbirth
   d) vaginal bleeding in excess of 500 mL after childbirth

28. Immediate postpartum hemorrhage is most commonly due to
   a) Contracted uterus
   b) Aortic compression
   c) Atonic uterus
   d) Coagulation defect

29. Tears of the cervix, vagina or perineum should be suspected when there is immediate postpartum hemorrhage with
   a) A complete placenta and contracted uterus
   b) An incomplete placenta and a contracted uterus
   c) A complete placenta and an atonic uterus
   d) An incomplete placenta and an atonic uterus

30. If a retained placenta is undelivered after 30 minutes of oxytocin administration and controlled cord traction and the uterus is contracted
   a) More aggressive controlled cord traction should be attempted
   b) Controlled cord traction and fundal pressure should be attempted
   c) Manual Removal should be attempted
   d) Ergometrine should be given

31. If manual removal of the placenta is performed
   a) Give ergometrine prior to the procedure
   b) Give antibiotics 24 hours after the procedure
   c) Place one hand in the uterus and use the other hand to apply traction on the cord
   d) Place one hand in the uterus and one hand on the abdomen to provide counter traction on the uterine fundus
32. If there is continued heavy bleeding after manual removal of the placenta
   a) Ergometrine 0.2 mg should be given by mouth
   b) Ergometrine 0.2 mg should be given IM
   c) Oxytocin 10 units should be given as an IV bolus
   d) Prostaglandin 2.5 mg should be given IM

FEVER

33. Factors that may predispose to postpartum infection
   a) Prolonged labor and prolonged rupture of membranes
   b) Frequent passing urine
   c) No hand washing before palpating the abdomen
   d) Giving plenty of drinks during labor

34. A reddened, wedge-shaped area on the breast is a typical sign of
   a) Breast abscess
   b) Mastitis
   c) Breast engorgement
   d) Post partum breast

NEWBORN

35. The newborn loses heat
   a) If the surface of the body is wet
   b) If the skin of the baby comes in contact with mother’s skin
   c) If the newborn is in a baby’s box
   d) If the baby is bottle fed

36. To help prevent heat loss, the newborn should be
   a) Dried thoroughly immediately after birth
   b) Dried thoroughly after the cord has been cut
   c) Dried thoroughly and covered with a clean cloth immediately after birth
   d) Covered with a clean, dry cloth after the cord has been cut

37. Newborn cord care involves
   a) Applying a dry dressing to the cord stump
   b) Swabbing the cord stump with alcohol and applying a dry dressing
   c) Keep the cord stump dry without putting any substance on it
   d) Covered with antiseptic soaked wet gauze

38. Clearing the airway before beginning resuscitation of the newborn involves
   a) Suctioning the mouth only
   b) Suctioning the nose only
   c) Suctioning the mouth then the nose
   d) Suctioning the nose and then the mouth
39. The correct rate for ventilating a newborn is:
   a) 20 breaths per minute
   b) 30 breaths per minute
   c) 40 breaths per minute
   d) 60 breaths per minute

40. A baby should be
   a) Exclusively breastfed for 6 month and then given a varied diet with no breastfeeding
   b) Exclusively breastfed for 6 months and then should be introduced to complimentary foods in addition to breast milk
   c) Exclusively breastfed for 3 months and then should begin receiving complimentary foods in addition to breast milk
   d) Introduced to complimentary foods at 12 months
OPTIONAL CASE STUDIES
OPTIONAL CASE STUDY 1:
VAGINAL BLEEDING IN LATER PREGNANCY

CASE STUDY

Fatima, who is 32 weeks pregnant, gravida three, has two healthy children. She has attended antenatal care regularly and all findings were within normal limits until her clinic visit 10 days ago. At that visit her blood pressure was noted to be 120/96 mm Hg; there were no other signs or symptoms of pregnancy-induced hypertension. Fatima was counseled about danger signs and what to do if they occur and asked to return to the clinic in 2 weeks. She presents at the health center 2 days before her next clinic visit, accompanied by her mother-in-law, with vaginal bleeding, abdominal pain, and a bad headache.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Fatima’s physical examination will help you make a diagnosis and identify her problems/needs, and why?

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

DIAGNOSIS (Identification of Problems/Needs)

You have completed your assessment of Fatima and your main findings include the following:
- Fatima’s pulse rate is 120 beats/minute and weak, blood pressure is 110/60 mm Hg, respiration rate is 20 breaths/minute and her temperature is 37°C.
- Her skin is pale and sweaty.
- Fatima has constant abdominal pain, her uterus is tender on palpation, and the fetal heartbeat could not be heard.
- She has heavy vaginal bleeding containing some old, clotted blood.
- Coagulopathy was not detected.

4. Based on these findings, what is Fatima’s diagnosis, and why?

5. What laboratory tests would be appropriate at this time?

CARE PROVISION (Planning and Intervention)

6. Based on your diagnosis, what is your plan of care for Fatima, and why?

EVALUATION

- Half an hour after admission, Fatima’s condition has been stabilized, although she continues to bleed vaginally.
- Her cervix is found to be 3 cm dilated.
• Fetal heart sounds cannot be detected.
• Her blood clotting test is normal.

7. Based on these findings, what is your continuing plan of care for Fatima, and why?

REFERENCES

Managing Complications in Pregnancy and Childbirth: pages C-1; C-10 to C-11; S-1 to S-2; S-18 to S-20
OPTIONAL CASE STUDY 2: VAGINAL BLEEDING IN LATER PREGNANCY

CASE STUDY

Sabera is a healthy 20-year-old primigravida. Her pregnancy has been uncomplicated. At 38 weeks gestation, Sabera walks into the emergency department at the health center, accompanied by her husband. She reports that she has painless, bright red vaginal bleeding that started 2 hours ago. Sabera has visited the antenatal clinic three times during her pregnancy. At her last antenatal clinic visit, which was 2 weeks ago, there were no abnormal findings.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Sabera’s physical examination will help you make a diagnosis and identify her problems/needs, and why?

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

DIAGNOSIS (Identification of Problems/Needs)

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

- Sabera’s pulse rate is 88 beats/minute, her blood pressure is 110/80 mm Hg, her respiration rate is 16 breaths/minute and her temperature is 37°C.
- Vaginal bleeding is found to be light to moderate and bright red, and Sabera reports soaking 12 pads before coming to the health center.
- Uterine consistency is normal and there is no abdominal pain. The lie is longitudinal, the presentation is vertex, and the head is well above the pelvic brim. The fetus is active and the fetal heart rate is 120 beats/minute.
- It has not been possible to do an ultrasound scan.

4. Based on these findings, what is Sabera’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Sabera, and why?

EVALUATION

- Sabera has had light vaginal bleeding for 2 days since admission to the health center.
- Her condition has been stable, the fetus has remained active, and the fetal heart rate has ranged from 120 to 140 beats/minute.
- On the morning of the third day in the health center, the bleeding increases from light to
moderate and is bright red.
- It has still not been possible to do an ultrasound scan.

6. Based on these findings, what is your continuing plan of care for Sabera, and why?

REFERENCES

Managing Complications in Pregnancy and Childbirth: pages S-6; S-21 to S-23
OPTIONAL CASE STUDY 3: MALPOSITION

CASE STUDY

Mariam is a 26-year-old gravida three, para two. She was brought to the health center in active labor at 2:00 pm; membranes ruptured 30 minutes before her arrival; the fetal head was palpable at 3/5 above the symphysis pubis; the cervix was 5 cm dilated; contractions were two in 10 minutes, each lasting 20–40 seconds. Amniotic fluid is clear. There were no abnormal findings on admission.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

1. What will you include in your ongoing assessment (monitoring progress in labor) of Mariam, and why?

DIAGNOSIS (Identification of Problems/Needs)

Ongoing assessment of Mariam’s progress in labor reveals the following:

- On abdominal examination at 6:00 pm, the lower part of the abdomen is flattened and fetal limbs are palpable anteriorly.
- Contractions are three in 10 minutes, each lasting 20–40 seconds.
- Mariam complains of continuous and severe backache, worsening with contractions.
- On vaginal examination, the posterior fontanelle is felt toward the sacrum.
- The cervix is 8 cm dilated. Amniotic fluid is clear.

2. Based on these findings, what is Mariam’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

3. Based on your diagnosis, what is your plan of care for Mariam, and why?

EVALUATION

- At 8:00 pm Mariam is having three contractions in 10 minutes, each lasting more than 40 seconds.
- Her partograph recordings show that her vital signs are normal, the fetal heart rate is within normal range, the cervix is fully dilated, the anterior fontanelle can be felt just behind the symphysis pubis, and the head is at +1 station.

4. Based on these findings, what is your continuing plan of care for Mariam, and why?

REFERENCES

Managing Complications in Pregnancy and Childbirth: pages S-69 to S-72; S-75 to S-76
OPTIONAL CASE STUDY 4:
FEVER AFTER CHILDBIRTH

CASE STUDY

Shahgul is 22 years old. She gave birth to a full-term baby 3 days ago at the hospital. The baby weighed 4 kg and Shahgul suffered a perineal laceration that required suturing. She was counseled about danger signs before leaving the hospital, including the need to seek care early if any danger signs occur. Shahgul has come to the health center today complaining that her perineal wound has become increasingly tender during the past 12 hours. She also says that she feels hot and unwell.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

1. What will you include in your initial assessment of Shagul, and why?
2. What particular aspects of Shahgul’s physical examination will help you make a diagnosis or identify her problems/needs, and why?
3. What screening procedures/laboratory tests will you include (if available) in your assessment of Shahgul, and why?

DIAGNOSIS (Identification of Problems/Needs)

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

- Shahgul’s temperature is 38°C, her pulse rate is 88 beats/minute, her blood pressure is 120/80 mm Hg and her respiration rate is 20 breaths/minute.
- Her perineal wound is tender, with pus draining from the center.
- The wound is not edematous but there is slight erythema present extending beyond the edge of the incision.
- She has no abdominal pain or tenderness.
- Her lochia is red, normal in amount, and does not have an offensive odor.

4. Based on these findings, what is Shahgul’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Shahgul, and why?
EVALUATION

- Shahgul returns to the health center the next day.
- Her temperature is 37.6°C.
- Her perineal wound is slightly less tender and there is less discharge.

6. Based on these findings, what is your continuing plan of care for Shahgul, and why?

REFERENCES

Managing Complications in Pregnancy and Childbirth: pages S-107 to S-108; S-113 to S-114
OPTIONAL CASE STUDY 5: 
FEVER AFTER CHILDBIRTH

CASE STUDY

Meena is 17 years old. She gave birth to her first baby 3 weeks ago at the hospital. Her birth was uncomplicated and the baby was healthy and of normal birth weight. You last saw Meena 2 days after the birth, when she and her newborn were found to be doing well. She has come to the health center today because she has breast pain and tenderness and feels unwell.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

1. What will you include in your assessment of Meena, and why?
2. What particular aspects of Meena’s physical examination will help you make a diagnosis or identify her problems/needs, and why?
3. What screening procedures/laboratory tests will you include (if available) in your assessment of Meena, and why?

DIAGNOSIS (Identification of Problems/Needs)

You have completed your assessment of Meena and your main findings include the following:
- Her temperature is 38º C, her pulse rate is 120 beats/minute, her blood pressure is 120/80 mm Hg and her respiration rate is 20 breaths/minute.
- She has pain and tenderness in her left breast, and there is a wedge-shaped area of redness in one segment of the breast.
- Meena reports that for the first week or so after birth, her newborn seemed to have difficulty taking the nipple into his mouth, but more recently she thinks that he has been doing better.
- He feeds about six times in a 24-hour period and is given water between feedings.
- Meena had breastfed the newborn less than an hour before you examined her.

4. Based on these findings, what is Meena’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Meena, and why?

EVALUATION

- Three days later Meena reports that she is feeling better and has stopped taking her medication.
- Her temperature is 37.6º C, her pulse is 90 beats/minute, her blood pressure is 120/80 mm Hg and her respiration rate is 20 breaths/minute.
- There is less pain and swelling in her breast.
- She reports that she has stopped giving her newborn water and he has been feeding more than
six times in 24 hours.

- She also reports that the newborn seems to be attaching better to the breast.

6. Based on these findings, what is your continuing plan of care for Meena, and why?

REFERENCES

Managing Complications in Pregnancy and Childbirth: pages S-107 to S-108; S-112
OPTIONAL CASE STUDY 6: VAGINAL BLEEDING AFTER CHILDBIRTH

CASE STUDY

Karima is 20 years old. She gave birth at the health center 6 days ago to a healthy baby, with no apparent complications. She has come back to the health center today complaining that she feels weak, light-headed and generally unwell. She says that she has vaginal bleeding equal to a heavy period.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Karima’s physical examination will help you make a diagnosis or identify her problems/needs, and why?

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

DIAGNOSIS (Identification of Problems/Needs)

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

- Karima’s pulse rate is 90 beats/minute, her blood pressure is 120/80 mm Hg, her respiration rate is 20 breaths/minute and her temperature is 37º C.
- Her uterus is soft and almost to the level of her umbilicus.
- She has no signs of cervical, vaginal or perineal trauma.
- However, vaginal bleeding has become progressively heavier and Karima’s lochia now has a slightly offensive odor.
- She also has mild conjunctival and palmar pallor, and her hemoglobin is 9 g/dL.
- Karima’s record does not indicate blood loss after childbirth or whether the placenta was complete.

4. Based on these findings, what is Karima’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Karima, and why?

EVALUATION

- Two hours later Karima is resting after having had placental remnants removed from her uterus.
- Her uterus is now well-contracted and she has light vaginal bleeding.
- Her pulse is 82 beats/minute, her blood pressure is 120/80 mm Hg, her respiration rate is 20 breaths/minute and her temperature 37.2º C.

6. Based on these findings, what is your continuing plan of care for Karima, and why?
REFERENCES

Managing Complications in Pregnancy and Childbirth: pages S-25 to S-34
OPTIONAL CASE STUDY 7: SHOULDER DYSTOCIA

CASE STUDY

Amina is a 35-year-old gravida seven, para six. She was brought to the health center in active labor at 10:00 pm. Labor has progressed well, as indicated on her partograph. It is now 4:00 am and the fetal head has just delivered and remains tightly applied to the vulva.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

1. What will you include in your immediate assessment of Amina, and why?

DIAGNOSIS (Identification of Problems/Needs)

Immediate assessment of the situation reveals the following:

- The chin retracts and depresses the perineum.
- Traction on the head fails to deliver the shoulder, which is caught behind the symphysis pubis.

2. Based on these findings, what is Amina’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

3. Based on your diagnosis, what is your plan of care for Amina, and why?

EVALUATION

- Five minutes have lapsed since the head delivered. No further progress has been made.

4. Based on these findings, what is your continuing plan of care for Amina, and why?

REFERENCES

*Managing Complications in Pregnancy and Childbirth*: pages S-83 to S-85
OPTIONAL CASE STUDY 8:
VAGINAL BLEEDING IN EARLY PREGNANCY

CASE STUDY

Adela is 28 years old. She is 12 weeks pregnant when she presents at the health center complaining of light vaginal bleeding. This is Adela’s first pregnancy. It is a planned pregnancy, and she has been well until now.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Adela’s physical examination will help you make a diagnosis or identify her problems/needs, and why?

3. What causes of bleeding do you need to rule out?

DIAGNOSIS (Identification of Problems/Needs)

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

- Adela’s temperature is 36.8º C, her pulse rate is 82 beats/minute and her blood pressure is 110/70 mm Hg.
- She has no skin pallor or sweating.
- She has slight lower abdominal cramping/pain and light vaginal bleeding.
- Her uterine size is equal to dates, she has no uterine tenderness and no cervical motion tenderness, and the cervix is closed.

4. Based on these findings, what is Adela’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Adela, and why?

EVALUATION

- Adela returns to the health center in 3 days.
- She reports that the bleeding became heavier last night, and that since then she has been having cramping and lower abdominal pain.
- She has not passed any products of conception, her uterus corresponds to dates and her cervix is now dilated.
- She has no signs or symptoms of shock.
- Adela is very upset about the possibility of miscarrying.

6. Based on these findings, what is your continuing plan of care for Adela, and why?
REFERENCES

Managing Complications in Pregnancy and Childbirth: pages C-1 to C-2; S-7 to S-8; S-10 to S-13
OPTIONAL CASE STUDY 9:
PROLAPSED CORD

CASE STUDY

Basri is a 35-year-old gravida seven, para six. You have provided antenatal care at two antenatal visits, during which Basri’s pregnancy was found to be progressing well. Her last antenatal visit was 1 week ago. She is now 37 weeks pregnant and has come to the health center to report that labor pains started 2 hours ago.

ASSESSMENT (History, Physical Examination, Screening Procedures/Laboratory Tests)

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

2. What particular aspects of Basri’s physical examination will help you make a diagnosis or identify her problems/needs, and why?

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

DIAGNOSIS (Identification of Problems/Needs)

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

• Basri is having two contractions in 10 minutes, each lasting 20–40 seconds.
• Her cervix is 4 cm dilated.
• The presentation is vertex and the head is not engaged. The fetal heart rate is 130 beats/minute.
• Basri’s vital signs are normal.

4. Based on these findings, what is Basri’s diagnosis, and why?

CARE PROVISION (Planning and Intervention)

5. Based on your diagnosis, what is your plan of care for Basri, and why?

EVALUATION

• Two hours after admission, Basri’s membranes rupture.
• On vaginal examination, the cord is felt below the head, which is at 0 station.
• The cervix is 6 cm dilated.
• The fetal heart rate is 160 beats/minute.

6. Based on these findings, what is your continuing plan of care for Basri, and why?
REFERENCES

Managing Complications in Pregnancy and Childbirth: pages S-97 to S-98
# FINAL COURSE EVALUATION FORM

<table>
<thead>
<tr>
<th>Please evaluate the following statements:</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. For the work I do, the training was appropriate.</td>
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<td>2. Training facilities and arrangements were satisfactory.</td>
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<td>3. The facilitators were knowledgeable and skilled.</td>
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<tr>
<td>4. The facilitators were fair and friendly.</td>
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<td>5. The training updated my knowledge and skills.</td>
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<td>6. Training objectives were met.</td>
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<td>7. Teaching aids were useful.</td>
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<tr>
<td>8. Practice in the clinical areas was important and helpful.</td>
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</tbody>
</table>

Please answer the following questions. Use the back for more writing space if needed.

9. What was the most useful part of the training course for you:

10. What part of the training course was not useful to you:

11. What suggestions do you have to improve the training course:

12. Other comments:

Thank You
HANDOUTS
Objectives

- Summary of global situation of maternal mortality
- Review maternal and newborn health status in Afghanistan
- Review maternal and newborn health services in Afghanistan
- The way forward in maternal newborn health in Afghanistan

What is Safe Motherhood?

- A woman’s ability to have a SAFE and healthy pregnancy and childbirth
Maternal Mortality: A Global Tragedy

- Annually, approximately 600,000 women die of pregnancy related complications
  - 99% in developing world
  - ~ 1% in developed countries

Maternal Death Watch

- 380 women become pregnant
- 190 women face unplanned or unwanted pregnancy
- 110 women experience a pregnancy related complication
- 40 women have an unsafe abortion
- 1 woman dies from a pregnancy-related complication

Maternal Mortality

- MATERNAL DEATH:
  - The death of a woman while pregnant or within 42 days after termination of pregnancy, irrespective of the site and duration of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.
  - Is the TIP OF THE ICEBERG – For every maternal death 16 – 100 mothers suffer from morbidity due to the consequences of pregnancy and child birth.
  - ICD –10 Late maternal death: the death of a woman from direct or indirect obstetric causes more than 42 days but less than one year after termination of pregnancy
Maternal Mortality Ratio in Afghanistan

- MMR 1600 per 100,000 live births
- About? deaths every year
- About? maternal deaths every day
- Direct Causes
  - Prolonged and obstructed labour/Ruptured Uterus
  - Sepsis
  - Haemorrhage
  - Pre-eclampsia and Eclampsia
  - Complications of abortion
- Indirect causes:
  - Malaria and Anaemia

Status of Maternal Health Services Afghanistan (AHS 2006)

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled Antenatal Care (at least 1 visit, excluding TT)</td>
<td>32.3%</td>
</tr>
<tr>
<td>Pregnant Women Receiving at least 2 Doses of Tetanus Toxoid</td>
<td>23.8%</td>
</tr>
<tr>
<td>Skilled Birth Attendance</td>
<td>18.9%</td>
</tr>
<tr>
<td>Exclusive Breastfeeding (%)</td>
<td>83%</td>
</tr>
</tbody>
</table>

MDG 5 - Improve Maternal Health

- Target:
  1. Reduce by three quarters, by 2015, the maternal mortality ratio
  2. To achieve universal access to reproductive health by 2015
- NEED
  - Increase the proportion of births that are attended by skilled health personnel to 40% by 2013, SBA based on NRVA 2008 was 23.9%
20 years after Safe Motherhood introduced

- Maternal deaths are not predictable
- Major obstetric complications are not predictable
- A substantial proportion of maternal deaths take place in hospital
- Most maternal deaths occur during labour, delivery or the first 24H postpartum
- 80% of maternal deaths are preventable by appropriate treatment

The three delays....

Neonatal Health - Scope Of Problem

- Every year: 4 million neonatal deaths (first month of life)
- Of those who die in the 1st month of 2/3 die in the first week.
- Of those who die in the first week, 2/3 die in the first 24 hours.
- Eight neonatal deaths every minute
- 4 million still births
Neonatal Health status - Afghanistan

- Newborn death rate
- 60 per 1000 live births
- Causes:
  - Asphyxia
  - Infection
  - Preterm

What are the key interventions to reduce maternal and neonatal mortality?

- Skilled attendants during pregnancy and childbirth
- Availability and use of emergency obstetric care services
- Fully functioning health services 24/7
- Increased utilization of Family Planning
- Essential newborn care
- Effective referral system

Evidence based care

- For years, much of basic and emergency obstetric and newborn care was provided according to “tradition” and “routine” practice rather than according to evidence.
- Today, we know that to be effective, care should be evidence-based. And yet the “evidence” and current “best practices” in maternal and newborn care has failed to catch up with our teaching of students and in refresher trainings.
The evidence

- Recent global evidence shows that availability and use of Emergency Obstetric Care (EmOC) and skilled attendants at birth are key to the reduction of maternal mortality
- Access to skilled care during pregnancy and childbirth is a woman’s basic human right.

The evidence base for Maternal and Newborn Care (MNC) interventions

- Recognition that most deaths occur in the postpartum period and that programs needed to be adjusted accordingly
- Better understanding of emergency obstetric care (EmOC) and ‘best practices’ in labour and delivery
- Enhanced appreciation of the role that community mobilization, birth preparedness, and a continuum of care make

Proven Interventions for Maternal Survival

- Partogram
- Cesarean Section
- Clean Delivery
- Antibiotics
- Tetanus Toxoid
- Family Planning
- Postabortion Care
- Magnesium Sulfate
- Calcium
- Iron Folate
- Nutrition Counseling
- Iron Folate
- IPTp, Malaria Control
- Active Management of the Third Stage of Labor
- Misoprostol
- Cesarean Section
- Parenteral Analgesia
- Vacuum Assisted Delivery
- Other Causes

Emergency Obstetric Care

- In guidelines jointly issued in 1997 by WHO, UNICEF, and UNFPA, it is recommended that for every 500,000 people there should be FOUR facilities offering basic and one facility offering comprehensive essential obstetric care.

EmONC Signal Functions (2008)

<table>
<thead>
<tr>
<th>Basic EmONC</th>
<th>Comprehensive EmONC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Administer parenteral antibiotics</td>
<td>Perform EmOC Signal functions 1-7, plus</td>
</tr>
<tr>
<td>2) Administer uterotonic drugs (e.g. parenteral oxytocin, misoprostol)</td>
<td>8) Perform surgery (e.g. cesarean delivery)</td>
</tr>
<tr>
<td>3) Administer parenteral anticonvulsants (e.g. magnesium sulfate)</td>
<td>9) Perform blood transfusion</td>
</tr>
<tr>
<td>4) Perform manual removal of placenta</td>
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<tr>
<td>5) Perform removal of retained products (e.g. MVA)</td>
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<tr>
<td>6) Perform assisted vaginal delivery (e.g. vacuum extraction)</td>
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<tr>
<td>7) Perform neonatal resuscitation (e.g. w/ bag and mask)</td>
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</tr>
</tbody>
</table>

Why the signal functions work well

- Focus on emergencies and life-threatening complications
- Demonstrate facility functioning
- Stimulate review of policies
- Identify interventions needed
  ▪ Clinical training
  ▪ Supportive supervision
  ▪ Standardized protocols
  ▪ Distribution of equipment and maintenance
  ▪ Logistics for drugs and supplies
  ▪ Community mobilization
What do women want?

- Respectful provider attitude and availability of drugs and medical equipment
- Culturally appropriate services
- Women friendly care – kindness, respect, information

EmONC Building Blocks Framework

The right to Safe Motherhood

- Maternal death is the biggest challenge in strengthening health systems….If we can get maternal health services to perform, then we are very nearly perfecting the entire health system."
- The MOPH in Afghanistan is committed to increasing accessibility of mothers and women of child bearing age to quality reproductive health services

(Omaswa 2007)
Our goal- for BEmONC training!

- Do the right things, and do things right

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Afghanistan health system services
Health system priorities

- Health Service
- BPHS (Basic Package of Health Service)
- EPHS (Essential Package of Hospital Service)
- Establish and expand of preventive programs

---

Afghanistan Health System Services

- Definition of BPHS:
  - BPHS is the infrastructure of Afghanistan’s health system which includes all primary health activities and primary health care elements.
EPHS objectives:

- Specification of standard health system package at all hospitals level
- Preparation of guide to organize the hospital staff, instrument, materials and drugs for MOPH, private sectors, NGOs and donors
- Develop high-quality referral system and coordination among BPHS and hospitals

EPHS and BPHS levels

- **BPHS**
  - Health post
  - Sub center
  - Mobile teams
  - BHC
  - CHC
  - CHC plus
  - DH

- **EPHS**
  - DH
  - PH
  - RH (including specialized hospital)

BPHS Framework

<table>
<thead>
<tr>
<th>Coverage population</th>
<th>Minimum number of personnel</th>
<th>Type of health facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000-1500</td>
<td>2 CHWs (male, female)</td>
<td>Health post</td>
</tr>
<tr>
<td>3500-5000</td>
<td>1 nurse, midwife, male nurse</td>
<td>Health sub center</td>
</tr>
<tr>
<td>15000-30000</td>
<td>1 doctor, male nurse, midwife, auxiliary midwife, 2 vaccinators</td>
<td>BHC</td>
</tr>
<tr>
<td>30000-60000</td>
<td>2 doctors (male, female), PH, midwife, 2 vaccinators, lab tech, pharmacist</td>
<td>CHC</td>
</tr>
<tr>
<td>30000-60000</td>
<td>General surgeon, 4general medicine doctors, 2 pediatricians, 2 anesthesiologists, 2 nurses, 2 midwives, lab tech, pharmacy tech, 2 vaccinators, community supervisor (CHS) and admin</td>
<td>CHC plus</td>
</tr>
<tr>
<td>100000-300000</td>
<td>General surgeon, 4 general medicine doctors, 4 pediatricians, 2 anesthesiologists, 2 dentists, 4 midwives, 5 male nurses, 5 female nurses, 4 lab tech, 4 pharmacy tech, 2 vaccinators, CHS and admin</td>
<td>DH</td>
</tr>
</tbody>
</table>
Divide into Groups of 3–5 Participants

- Discuss the following questions:
  - How would you define “women-friendly care”?
  - Why is women-friendly care important?
  - Give some examples of care you have seen that is not women-friendly.
  - Give some examples of care that is women-friendly.
  - How can you help ensure that your students will value and learn to provide women-friendly care?

After Small Group Discussion . . .

- . . . Reconvene as a large group to share your thoughts, conclusions and recommendations . . .
Discussion Guide for Facilitator

- The next slides will have some points you will want to bring out during the discussion.

- Be sure to allow, and build on, participant contributions as much as possible in summarizing the discussions.

How would you define “women-friendly care”?

- Provides services that are acceptable to the woman:
  - Respects beliefs, traditions, and culture
  - Includes family, partner, or other support person in care
  - Provides relevant and feasible advice

- Empowers woman and her family to become active participants in care

- Considers the rights of the 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 health care staff use good interpersonal skills

- Considers the emotional, psychological and social well-being of the woman

Why is women-friendly care important?

- Women-friendly care is life-saving, as studies have shown that women may refuse to seek care from a provider who “abuses” them or does not treat them well, even if the provider is skilled in preventing and managing of complications.
Give some examples of care that is not women-friendly

- Does not respect woman or her culture or background
- Rude, offensive, demeaning language by health personnel
- Physically restrains, pushes or hits the woman
- Insists on routine procedures that are convenient for the health care provider but may be shameful or disgusting to the woman, e.g., lithotomy position only, routine episiotomy, frequent vaginal exams, assembly-line fashion of care
- Excludes partner or companion from care
- Separates mother and baby

Give some examples of care that is women-friendly

- Individualizes care to woman’s needs
- Recognizes the richness and spiritual significance of community and culture:
  - Is aware of traditional beliefs regarding pregnancy and childbirth
  - Cooperates and liaises with traditional health care system when possible
  - Provides culturally sensitive care
- Respects and supports the mother-baby dyad:
  - Encourages bonding
  - Keeps baby with mother
  - Places baby on mother’s abdomen (at breast) immediately after birth

Give some examples of care that is women-friendly (cont.)

- Speaks to the woman in her own language
- Observes rules and norms of her culture as appropriate
- Is aware of who makes decisions in her life and involves that person in discussions and decisions
- Works with traditional birth attendants when possible
- Learns about traditional practices:
  - Promotes/builds on positive traditional practices
  - Offers alternatives to those that are harmful
How can you help ensure that your students will value and learn to provide women-friendly care?

- Consistent role modeling of women-friendly care
- Use of women-friendly approaches in simulated settings, e.g., with anatomic models
- Emphasis of women-friendly care during teaching of all procedures and types of care
Best Practices in Infection Prevention

Best Practices in Maternal and Newborn Care

Session Objectives

- By the end of session, participants will be able to:
  - Describe disease treatment cycle
  - Outline key IP principles
  - Discuss appropriate hand washing and antisepsis
  - Discuss appropriate gloving and personal protective equipment
  - Outline safe handling of sharps
  - Discuss proper instrument processing and waste disposals

The six Components of the Disease Transmission Cycle

1. Agent: Disease-producing microorganisms
2. Reservoir: Place where agents lives, such as in or on humans, animals, plants, 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
Question?

- How can we prevent the spread of infection?

How we can prevent the spread of infection?

- Break disease-treatment agent (applying antiseptic to skin prior to surgery)
- Inhibit or kill infectious agent (applying antiseptic to skin prior to surgery)
- Block agent’s means of getting from infected person to susceptible person (hand washing or using alcohol-based rub)
- Ensuring that people, especially healthcare workers, are immune or vaccinated

How we can prevent the spread of infection? (Cont…)

- Providing health care workers with proper protective equipment to prevent contact with infectious agents.
- Give some example of ways to break transmission cycle (see notes)
Why is infection prevention important?

- Protects patients/clients—helps provide quality care that is also safe
- Lowers health care costs—prevention less expensive than treatment
- Prevents infection among health care staff and community
- Limits number and spread of infectious agents that can become antibiotic-resistant

Question?

- What is the most important infection prevention practice?

Hand washing

- The single most practical procedures for preventing infection: Hand washing
- When to wash hands:
  - Before and after examining client
  - After contact with blood, body fluids or soiled instrument, even if gloves are worn
  - Before and after removing gloves
  - Upon arriving at and before leaving workplace
Hand washing: How to wash hands

- **Steps:**
  - Use a plain or antiseptic soap
  - Vigorously rub lathered hands together for 10 – 15 seconds
  - Rinse with clean running water from a tap or bucket
  - Dry hands with a clean towel or air dry them

  Source: Larsen 1995

Alcohol-Based Hand rub

- More effective than hand washing unless hands are visibly soiled
- 2 mL emollient (e.g., glycerin) + 100 mL ethyl or isopropyl alcohol 60-90%
- Use 3 to 5 mL for each application and continue rubbing the solution over the hands until dry

Antisepsis

- Antisepsis for mucous membranes:
  - Ask about allergic reaction
  - Use water-based product (e.g., ionosphere or chlorhexidine), as alcohols may burn or irritate mucous membranes

- Skin preparation for injections:
  - If skin clean, antisepsis is not necessary
  - If skin appears dry, wash with soap and water
  - Before giving injection, dry with the towel
When to glove

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

Guideline for Gloving

- Wear separate pair of gloves for each woman/newborn to prevent spreading infection from client to client
- What kind of gloves do you wear for:
  - Procedures involving contact with broken skin or tissue under skin?
  - Starting IV, drawing blood, or handling blood or body fluid?
  - Cleaning instruments, handling waste and cleaning up blood and body fluid?
  - Never wear gloves that are cracked, peeling or have holes

Personal Protective Equipment

- Gloves: utility, examination, HLD/sterile
- Eyewear: face shields, goggles, glasses
- Aprons
  - Should be fluid-resistant
  - Should be decontaminated after use
- Protective footwear
Global Statistics on Occupational Exposure

- 3 million health care workers (HCWs) per year report needlestick injuries per year
- 2.5% HIV infections among HCWs are transmitted by needlestick injuries
- 40% of Hepatitis C and Hepatitis B infections among HCWs are transmitted by needlestick injuries (WHO, 2002)

Safe Handling of Sharps

- Never pass sharp instruments from one hand directly to another person’s hand
- After use, decontaminated syringes and needles flushing three times with chlorine solution
- Immediately dispose of sharps in puncture-proof container
- Which is greatest, the risk of acquiring Hepatitis B or HIV from a needlestick injuries?
Safe Handling of Sharps (Con.)

- Do not recap, bend, break, or disassemble needles before disposals
- Always use needle holder when suturing
- Never hold or guide needle with finger

Instrument Processing

- **Decontamination:**
  - Should be done immediately after use
  - Makes objects safer to handle
  - How do you make a 0.5% chlorine solution for decontamination

- **Cleaning:**
  - Most effective way to reduce number of organisms
  - Removes visible dirt and debris

Instrument Processing (Con.)

- **Sterilization:**
  - Destroys all microorganisms
  - Includes autoclave, dry heat, chemicals

  **High-level disinfection (HLD)**
  - Destroys all microorganisms except bacterial endospers
  - Includes boiling, steaming, soaking

- **Storage:**
  - After processing, must remain dry and clean
What is wrong with this picture?

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
Housekeeping (Cont...)

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

Waste Disposal

Contaminated waste includes blood and other body fluids, and items that come into contact with them such as dressing

- Separate contaminates waste from non contaminated waste
- Use puncture-proof container for sharps and destroy when two-thirds full

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
Summary

- Everyone (staff and patients) is at risk for infection
- This risk can be reduced through rigorous adherence to IP practices:
  - Hand washing or using alcohol-based hand rub
  - Antisepsis
  - Personal protective equipment, including gloving
  - Safe handling of sharps and needles
  - Instrument processing
  - Housekeeping and waste disposal
BEST PRACTICES IN FOCUSED ANTENATAL CARE
RATIONAL, COMPONENTS AND TOOLS

Best Practices in Maternal and Newborn Care

Session Objectives
- Describe focused antenatal care (FANC)
- Describe basic elements of FANC assessment and care
- Define the elements of effective counseling
- Describe the elements of Birth Preparedness and Complication Readiness
- Demonstrate the provision of focused antenatal care

Objective of ANC
- A healthy pregnancy
- A healthy outcome for mother and newborn
- Promotion of physical, mental, and social health
Benefits of FANC

- ANC visits are a unique opportunity for early diagnosis and treatment of problems:
  - Maternal problems: anemia, vaginal bleeding,
  - Pre-eclampsia/eclampsia, infection, abnormal fetal position after 36 weeks
  - Fetal/newborn problems: abnormal fetal growth or movement, syphilis, malaria, malnutrition

ANC - Is There a Problem?

- ANC coverage is high
  - Average number of visits: 2.5
  - 32.3% pregnant women in Afghanistan have at least 1 ANC visit
- MMR REMAINS HIGH
- Significant maternal and neonatal mortality preventable through FANC

ANC - Why Is There a Problem?

- Quality of care is poor
  - We gather information but do not use it to manage patient eg. Anemia
  - Poor clinical management of problems – eclampsia, bleeding in pregnancy
  - Failure to record relevant information
- Not woman friendly –
  - Inhumane 'factory assembly line' ANC system
  - Women treated poorly so do not return
- Poor communication
  - Poor counseling skills
  - Information and education is not relevant to the woman
A Midwife says:

- “What I dislike about the assembly line system was that I alone had to palpate about 150 pregnant women a day. There was no privacy during history taking and the women did not give us correct information . . It was tedious work…..”

  *A care provider*

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**What Focused ANC Means?**

- An approach to ANC that emphasizes
- Individualized care
- Client centered
- Fewer but comprehensive visits
- Disease detection not risk
- Categorisation
- Care by a skilled provider

---

**Four Goals of Focused ANC**

- Early detection and treatment of problems and complications
- Prevention of complications and disease
- Birth preparedness and complication readiness
- Health promotion
### The Focused ANC System

- Privacy/ confidentiality are assured
- Continuous care provided by same provider
- Promotes partner/ support person involvement
- Adheres to national protocols
- Referral facilitated
- ANC, PNC and family planning services are linked and housed within the same location if possible

### “High risk” women and “low risk” women

- What are the benefits of assigning women to “risk” categories?
- What are the problems with assigning women to “risk” categories?

### Why Risk Approach Is Not Effective?

- Complications cannot be predicted: all pregnant women are at risk.
- Risk factors are not usually the direct cause of complications
- Many low risk women develop complications
- Most high risk women give birth without complications
Focused ANC Visit Schedule For The Healthy Client

- **FOUR VISITS**
  - FIRST  <16 WEEKS
  - SECOND  20-24
  - THIRD  28-30
  - FOURTH  36

- It Means Good Clinical Decisions Must Be Made At Each Visit

Making Good Clinical Decisions at ANC

- **The steps**
  - Gather information (history, exam, labs, us etc)
  - Interpreting information gathered
  - Developing a care plan
  - Implementing care plan
  - Evaluating care plan

GATHERING INFORMATION: HISTORY

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Personal History</td>
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</tr>
<tr>
<td>Present Preg History</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td>LMP, Complaints</td>
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<tr>
<td>Past pregnancy History</td>
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<tr>
<td>Medical History</td>
<td>*</td>
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<td></td>
</tr>
<tr>
<td>Family/Social History</td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>
GATHERING INFORMATION: examination

1  2  3  4
- General
  - Pulse, Resps, BP
- Breast *
- Chest *
- Abdomen/Preg * *
- Genital *
- Pelvic Assess PRN only

GATHERING INFORMATION: Lab / other investigations

1  2  3  4
- Blood *
  - Hgb, RPR, HIV
- Urine - according to local protocols
  - Albumin, Sugar
- Ultrasound (PRN, NOT routine in FANC)

CARE PLAN: Appropriate counseling, information and education

- Relevant to client needs
- Relevant to gestation
- Address discomforts of pregnancy
Basic Care Plan

- Minimum of four visits for the healthy client
- Anemia prevention
- Malaria prevention
- Treatment/Prevention STIs
- Tetanus immunization
- Preparing birth and complication preparedness plan
- EDUCATE and COUNSEL – nutrition, family planning, infant feeding, hygiene

CARE PLAN: Anaemia Prevention

- Iron supplementation
- Folate supplementation
- TREAT ANY FACTORS THAT CAN CAUSE ANEMIA: WORMS, MALARIA etc.
- Nutrition – foods rich in iron, folate, and vitamin C

Question?

- Why bother with a birth
- Preparedness and complication readiness plan?
Why bother?

- Time of labor or time of emergency is not the time to decide what to do
- Increase the likelihood of using a skilled attendant as arrangements have been made
- Frequently women/families do not seek help because they do not know they have a problem – don’t know danger signs
- Some complications, e.g., hemorrhage take only 2 hours until death – all plans must be in place

Question?

- What are the elements of a birth preparedness and complication readiness plan

The Birth and Complication Readiness Plan

- Facility or place of birth
- Skilled provider
- Transportation
- Funds
- Support person
- Decision maker
- Blood donor
- Danger signs in labour
## Birth Preparedness and Complication Readiness Plan

- Where does she plan to deliver her baby?
- Who will accompany her in labour to her chosen center?
- How will she get to the health center?
- Does she have money and other needed items ready and accessible?

## Birth Preparedness and Complication Readiness (BP/CR) Plan

- If she develops a complication before or during labour how will she reach the nearest health facility?
- Where will she find money for any additional cost e.g. CS?
- If she needs blood who will donate?

## Group work and Discussion

- Divide into groups of four
- Discuss the elements in BP/CR for:
  - Mother
  - Family
  - Community
  - Facility and providers
  - Policy makers
- Write answers on flip chart
- Discuss answers with group when reassembled
The benefits of FANC…

“Since I started practicing individualized AN care, work has become very interesting. I know my clients better, they share their problems with me because of the privacy provided. Clients feel relaxed and at ease with me.

I feel more concerned and also more obliged to address their health needs. My clients seem to appreciate more the care I give to them and sometimes shower me with thank you cards and gifts. This makes me feel great….”

ANC care provider
Best Practices in Management of Bleeding in Early Pregnancy

Best Practices in Maternal and Newborn Care

Session Objectives

- To describe best practices for diagnosis of vaginal bleeding in early pregnancy
- To describe best practices for management of vaginal bleeding during early pregnancy
- To list post-abortion family planning options

Definition

- Vaginal bleeding that occurs during first 22 weeks of pregnancy
Bleeding in Early Pregnancy: General Management

- Rapid evaluation of woman’s general condition including vital signs (pulse, blood pressure, respiration, temperature)
- If shock suspected, immediately begin treatment.
- If woman is in shock, consider ruptured ectopic pregnancy.
- Start an IV infusion and infuse IV fluids.

What may cause bleeding...?

- . . . in early pregnancy?

Bleeding in Early Pregnancy: Diagnosis of Abortion

- Threatened abortion
- Complete abortion
- Inevitable abortion
- Incomplete abortion
- Ectopic pregnancy
- Molar pregnancy
**Bleeding in Early Pregnancy: Management of Threatened Abortion**

- Medical treatment usually not necessary.
- Advise woman to avoid strenuous activity and sexual intercourse; bed rest not necessary.
- If bleeding stops, followup in antenatal clinic. Reassess if bleeding recurs.
- If bleeding persists, assess for fetal viability (pregnancy test/ultrasound) or ectopic pregnancy (ultrasound). Persistent bleeding, esp. in the presence of uterus larger than expected may indicate twins or molar pregnancy.

Do not give medications such as hormones (e.g. estrogens or progestins) or tocolytic agents (e.g. salbutamol or indomethacin) as they will not prevent miscarriage.

**Bleeding in Early Pregnancy: Management of Inevitable Abortion**

- If pregnancy is less than 16 weeks, plan for evacuation of uterine contents. If evacuation not immediately possible:
  - Give ergometrine 0.2 mg IM (repeated after 15 min. if necessary) OR misoprostol 400 mcg by mouth (repeated once after 4 hours if necessary); 
  - Arrange for evacuation as soon as possible.
- Ensure follow-up after treatment.

**Inevitable abortion (Cont…)**

- If pregnancy is greater than 16 weeks:
  - Await spontaneous expulsion of products of conception and then evacuate uterus to remove any remaining products of conception
  - If necessary, infuse oxytocin 40 units in 1 L IV fluids at 40 drops/min to help expulsion of products of conception
Management of Incomplete Abortion: Less than 16 Weeks

- If bleeding light to moderate, use fingers or ring (or sponge) forceps to remove products of conception protruding through cervix.
- If bleeding heavy, evacuate uterus:
  - Manual vacuum aspiration (MVA) is preferred method. Sharp curettage should only be done if MVA not available
  - If evacuation not immediately possible, give ergometrine 0.2 mg IM (repeated after 15 min. if necessary) OR misoprostol 400 mcg orally (repeated once after 4 hours if necessary).
- Ensure followup of the woman after treatment.

Management of Incomplete Abortion: Greater than 16 Weeks

- Infuse oxytocin 40 units in 1 L IV fluids at 40 drops/min. until expulsion of POC occurs
- Evacuate any remaining products of conception from uterus by dilatation and curettage
- If necessary, give misoprostol 200 mcg vaginally every 4 hours until expulsion, but do not administer more than 800 mcg.
- Ensure follow up of the woman after treatment.

Bleeding in Early Pregnancy: Management of Complete Abortion

- Evacuation of the uterus usually not necessary
- Observe for heavy bleeding
- Ensure followup of woman after treatment
Bleeding in Early Pregnancy: Followup after Abortion

- Tell woman that spontaneous abortion is common.
- Reassure woman that chances for subsequent successful pregnancy are good unless there has been sepsis or unless cause of abortion is identified that may have an adverse effect on future pregnancies (rare).

Follow-up after spontaneous abortion

- Encourage her to delay next pregnancy until completely recovered.
- Provide counseling for women who have had unsafe abortion. If pregnancy not desired, certain FP methods can be started immediately (within 7 days) if:
  - There are no severe complications requiring further treatment
  - Woman receives adequate counseling and help in selecting most appropriate FP method.

Ectopic Pregnancy: Clinical Diagnosis

- Symptoms:
  - Pain: 90-100% of patients
  - Amenorrhea/abnormal menses: 75-95%
  - Irregular bleeding: 50-80%
  - Pregnancy symptoms: 10-25%

Ectopic pregnancy: Clinical Diagnosis (Cont...)

- Signs:
  - Afebrile
  - Abdominal tenderness: 80-95%
  - Rebound tenderness: 45%
  - Palpable mass: 50% (often opposite side)
  - Normal sized uterus: 71%
- Use combination testing to increase sensitivity and specificity

Ectopic Pregnancy

- Pregnancy which is outside the uterine cavity
- Can be in the tube, ovary, abdomen or other locations
- Treated surgically by removal of the pregnancy or tube
- Also treated medically, although not available in developing countries
- If ruptures can lead to hemorrhage and death

Bleeding in Early Pregnancy: Signs and Symptoms of Unruptured Ectopic Pregnancy

- Symptoms of early pregnancy
  - Irregular spotting or bleeding
  - Nausea
  - Swelling of breasts
  - Bluish discoloration of vagina and cervix
  - Softening of cervix
  - Slight uterine enlargement
  - Increased urinary frequency
- Abdominal and pelvic pain
### Bleeding in Early Pregnancy: Signs and Symptoms of Ruptured Ectopic Pregnancy

- Collapse and weakness
- Fast, weak pulse (≥ 110/minute)
- Hypotension
- Hypovolemia
- Acute abdominal and pelvic pain
- Abdominal distension
- Rebound tenderness
- Pallor

### Bleeding in Early Pregnancy: Differential Diagnosis for Ectopic Pregnancy

- Threatened abortion
- Acute or chronic PID
- Ovarian cysts
- (torsion or rupture)
- Acute appendicitis
- Remember: A ruptured ectopic pregnancy could be life-threatening!

### Molar Pregnancy

- If diagnosis of molar pregnancy is certain, evacuate the uterus:
  - Use vacuum aspiration
    - Risk of perforation using a metal curette is high
    - Have three syringes cocked and ready for use as uterine contents are copious and must be evacuated rapidly
  - Infuse oxytocin 20 units in 1 L IV (NS or RL) at 60 drops/minute to prevent hemorrhage once evacuation is under way

- Subsequent management:
  - Use contraception for at least one year
  - Follow up every 8 weeks for at least one year to monitor for trophoblastic disease or choriocarcinoma
Summary

- Vaginal bleeding in early pregnancy could be caused by:
  - Threatened abortion
  - Incomplete abortion
  - Complete abortion
  - Ectopic pregnancy
  - Molar pregnancy
- Diagnosis can often be made clinically, saving time and expense
Session Objectives

- Describe the initial assessment of a woman bleeding in early pregnancy
- Define the stages of abortion
- Describe pain management in postabortion care
- Discuss postabortion family planning
- Describe the management of problems that may occur with Manual Vacuum Aspiration

RAPID Initial Assessment

- Rapid evaluation of woman’s general condition including vital signs (pulse, blood pressure, respiration, temperature)
- If shock suspected, immediately begin treatment
- If woman is in shock, consider ruptured ectopic pregnancy
- Start an IV infusion and infuse IV fluids
Stages of Abortion

- Threatened abortion
- Inevitable abortion
- Incomplete abortion
- Complete abortion

Note: Bleeding in pregnancy can also be caused by ectopic or molar pregnancies.

MVA: Pain Management

Keys to pain management:
- Supportive attention from staff before, during and after the procedure
- A provider who is comfortable working with patients who are awake and is trained to handle instruments gently
- Selection of an appropriate level of pain medication
- Use of verbacaine

MVA: Pain Management (Cont…)

Tips for working with patients who are awake:
- Explain each step of the procedure prior to performing it
- Wait a few second after performing each task
- Move slowly, without jerky or quick motion; use instruments with confidence
- Talk with the patient throughout the procedure
MVA: Pain Management (Cont…)

The need for supplemental medication or paracervical block depends on:
- The emotional status of the patient
- How open (dilated) the cervix is
- Anticipated length of the procedure

Problems and Complications during MVA

Technical problems:
- Syringe full
- Cannula withdrawn prematurely
- Cannula clogged
- Syringe does not hold vacuum

Procedural problems:
- Little, if any, tissue
- Incomplete evacuation

Management of Problems and Complications during MVA

- Syringe full:
  - Close the pinch valve of the syringe
  - Disconnect the syringe from the cannula
  - Empty the syringe into a container
  - Re-establish a vacuum in a syringe, reconnect and resume the aspiration
Management of Problems and Complications during MVA (Cont…)

- Cannula withdrawn prematurely:
  - Remove the syringe and cannula
  - Close the pinch valve of the syringe
  - Detach the syringe from the cannula, empty the syringe, the re-establish the vacuum in the syringe
  - Reinsert the cannula
  - Reconnect the syringe release the valve and continue aspiration

- Cannula clogged:
  - Close the pinch valve
  - Remove the syringe and cannula
  - Remove the material from the opening in the cannula using a sterile or HLD forceps
  - Reinsert the cannula, attach a prepared syringe and release the pinch valve

Complications during MVA

- Uterine perforation
- Cervical perforation
- Shock, severe vaginal bleeding and post-MVA infection
- Air embolism
### Postabortion Family Planning

**What all PAC patients should understand:**
- They can become pregnant again before the next menses
- There are safe methods to prevent or delay pregnancy
- Where and how they can obtain family planning services and methods

### Factors Limiting Provision of Postabortion Family Planning Services

- Health care staff may have misconceptions about which contraceptive methods are appropriate.
- Providers of emergency postabortion care may NOT view the provision of contraceptive services as their responsibility.
- In hospitals, there may be administrative divisions (Ob/Gyn and FP services).

### Factors Limiting Provision of Postabortion Family Planning Services (Cont…)

- Often, emergency PAC and FP services are not coordinated
- Women who have been treated for incomplete abortion may not realize that their fertility will return soon
- Women may not know where FP and other reproductive health services are available
Postabortion Family Planning (Cont…)

**Components of good postabortion FP care:**
- Information and counseling about methods, their characteristics, effectiveness and side effects
- Choice of methods
- Assurance of contraceptive resupply
- Access to follow-up care

---

**Question?**

What methods of family planning can be used postabortion and how long after the abortion do you need to wait to begin each method?

---

**PAC Contraceptive Methods**

- Those methods can be started immediately for every woman who meets criteria:
  - Oral contraceptives
  - Progestin-only contraceptives
  - Patches
  - Implants
  - Condoms
PAC Contraceptive Methods (Cont…)

- These methods can be started once infection is ruled out or resolved:
  - Female sterilization
  - IUD
  - Fertility awareness such as ‘safe period’ (i.e. unprotected intercourse)

---

PAC Contraceptive Methods (Cont…)

- Postabortion family planning should be based on an individual assessment of every woman’s situation:
  - Her personal characteristics, needs and reproductive goals
  - Her clinical condition

---

Summary of FP Methods after Postabortion Care

<table>
<thead>
<tr>
<th>Type of FP Method</th>
<th>Advise to start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hormonal</td>
<td>Immediately</td>
</tr>
<tr>
<td>Condoms</td>
<td>Immediately</td>
</tr>
<tr>
<td>IUD or Voluntary Tubal Ligation</td>
<td>Immediately, if infection present or suspected, delay insertions/surgery until cleared, if Hb&lt; 7 g/Dl, delay until anemia improves, provide interim method (e.g., condom)</td>
</tr>
</tbody>
</table>
Vaginal Bleeding in Late Pregnancy and Labor

Best Practices in Maternal and Newborn Care

Session Objectives

- To describe best practices for the diagnosis and management of abruptio placenta
- To describe best practices for the diagnosis and management of placenta previa

Definition

- Vaginal bleeding that occurs:
  - After 22-28 weeks of pregnancy (late)
  - (In many countries 28 weeks)
  - During labor before childbirth
Question?

- What are the most common causes of bleeding in late pregnancy?

Bleeding In Late Pregnancy
Antepartum Haemorrhage

- Abruptio placenta
- Placenta previa
- Others: Vasa Praevia, Cervical, Vaginal diseases

Bleeding in Late Pregnancy:
Abruptio Placenta

- Definition: Detachment of normally located placenta from uterus before fetus is delivered
Bleeding in Late Pregnancy: Diagnosis of Abruptio Placenta

- Bleeding (may be retained in uterus) after 22 weeks gestation
- INTERMITTENT OR CONSTANT ABDOMINAL PAIN
- Symptoms sometimes present:
  - Shock
  - TENSE/TENDER UTERUS
  - Decreased/absent fetal movements
  - Fetal distress or absent fetal heart sounds
  - Ultrasound Confirmation
Management of Abruptio Placenta

- Assess clotting status: E.g. bedside clotting test. (No clot after 7 minutes or soft clot that breaks down easily, suggests coagulopathy).
- Manage Shock
- Transfuse as necessary
- If bleeding is heavy, deliver as soon as possible:
  - If the cervix is fully dilated, deliver by vacuum extraction
  - If vaginal delivery not imminent, deliver by C/Section
- Note: In every case of abruptio placenta, be prepared for postpartum hemorrhage.

Management of Abruptio Placenta

- If bleeding is light to moderate (the mother is not in immediate danger), the course of action depends on fetal heart sounds:
  - If fetal heart sounds are normal or absent, rupture membranes with amniotic hook or Kocher clamp:
    - If contractions are poor, augment labor with oxytocin
    - If cervix is unfavorable, perform cesarean section
  - If fetal heart sounds abnormal (< 100 or > 180 beats/min):
    - Perform rapid vaginal delivery
    - If vaginal delivery not possible, deliver by immediate C/Section

Question?

- What is placenta previa?
Bleeding in Late Pregnancy: Placenta Previa

- Placenta previa: implantation of placenta at or near cervix
- Three types:
  - Low placental implantation
  - Partial placenta previa
  - Complete placenta previa

Placenta Previa

Bleeding in Late Pregnancy: Diagnosis of Placenta Previa

- Bleeding after 22-28 weeks gestation
- Symptoms sometimes present:
  - Shock
  - Bleeding may be precipitated by intercourse
  - Relaxed uterus
  - Fetal presentation not in pelvis/lower uterine pole feels empty
  - Normal fetal condition
Bleeding in Late Pregnancy: Confirming Placenta Previa

- Localize placenta with ultrasound, if available
- If placenta previa is confirmed:
  - Plan delivery if fetus is mature
  - Manage expectantly if fetus is less than 37 weeks and bleeding is not life threatening.
- If diagnosis is uncertain:
  - Manage expectantly as placenta previa until 37 weeks gestation
  - If pregnancy is 37 weeks or more, examine under double-set up

Bleeding in Late Pregnancy: Expectant Management of Placenta Previa

- Assess amount of bleeding:
  - Do not perform a vaginal examination
  - If bleeding is heavy and continuous, deliver by cesarean section regardless of gestation
- Consider expectant management if:
  - Bleeding is light or has stopped
  - Fetus is alive but less than 37 weeks gestation

Bleeding in Late Pregnancy: Expectant Management

- Keep woman in hospital until delivery.
- Correct anemia with oral iron
- Ensure blood is available for transfusion
- If bleeding recurs, weigh benefits and risks for woman and fetus of further expectant management versus delivery
Bleeding in Late Pregnancy: Delivery for Placenta Previa

- Plan delivery by cesarean section if:
  - Hemorrhage is severe enough to cause risk to mother
  - Fetus is at least 37 weeks gestation
  - Fetus is dead or cannot survive
  - Major praevia
- Vaginal delivery may be possible with low placental implantation
- Women with placenta previa are at high risk for postpartum hemorrhage and placenta accreta

Summary

- Vaginal bleeding in late pregnancy and labor can be catastrophic:
  - Evaluate rapidly
  - Resuscitate if patient in shock
  - Differentiate abruptio placenta and placenta previa because of difference in mode of delivery
Session Objectives

- To discuss best practices for the initial assessment of obstetrical patients
- To discuss best practices in the management of shock
- To discuss adult resuscitation
- To describe an emergency tray/trolley
- To discuss the management of emergencies and emergency drills

A quick check and rapid initial assessment

- A quick check of a woman’s condition when she presents with a problem to rapidly determine her degree of illness is good practice.

- What would you include in a rapid initial assessment?
Assess Condition

- Airway and breathing
- Circulation (sign of shock)
- Vaginal bleeding (early or late pregnancy or after childbirth)
- Unconscious or convulsing
- Dangerous fever
- Severe abdominal pain

ABC of Adult Resuscitation: What To Do!

A - Airway: check airway: if not breathing:
Clear airway, position to prevent tongue falling back, insert an airway

B - Breathing: no breaths or chest movements
Help client breath by ventilating (mouth to mouth, mouth to mask, Ambu bag) with/or without oxygen

C - Circulation - no pulse or heart beat:
Begin cardiac massage and check response
(5:1 heart compressions: respiration effort)

Assess Circulation

- Examine:
  - Skin: Cool and moist
  - Pulse: Fast (110 beats/min. or more) and weak
  - Blood Pressure: Low (systolic less than 90 mm Hg)

- Consider shock even if blood pressure is normal
Definition of Shock

- Failure of circulatory system to maintain adequate perfusion of vital organs
- LIFE-THREATENING
- REQUIRES IMMEDIATE AND INTENSIVE TREATMENT

Question?

When would you anticipate shock?

When to Expect or Anticipate Shock

- Bleeding:
  - Early pregnancy (e.g. abortion, ectopic pregnancy, molar pregnancy)
  - Late pregnancy or labor (e.g., placenta previa, abruption placement, ruptured uterus)
  - After childbirth (e.g., ruptured uterus, uterine atony)
- Infection (e.g., unsafe or septic abortion, metritis)
- Trauma (e.g., injury to uterus or bowel during abortion, ruptured uterus)
Question?

What are the signs and symptoms of shock?

Symptoms and signs of Shock

- Fast, weak pulse (110 beats/min. or more)
- Low blood pressure (systolic less than 90)
- Pallor (inner eyelids, palms, around mouth)
- Sweatiness or cold clammy skin
- Rapid breathing (30 breathing/min. or more)
- Anxiousness, confusion, unconsciousness
- Low urine output (less than 30 mL/hour)

Immediate Management of Shock

- Shout for help—mobilize personnel
- Monitor vital signs
- Position woman onto her side
- Keep woman on her side
- Elevate her legs
- Collect blood for testing
Specific Management

- Start IV infusion (two if possible)
  - Infuse fluids at a rate of 1 L in 15-20 min., then give at least 2L of fluids in first hour
  - If shock results from bleeding, more rapid infusion is necessary
- Monitor vital signs
- Catheterize bladder
- Give oxygen at 6-8 L/min
- Blood work: Hemoglobin, cross-match
- Manage specific cause

Shock: Further Management

- Continue IV infusion at 1L in 6 hours and oxygen at 6-8 L/min
- Monitor closely
- Perform lab tests for hematocrit, blood grouping, Rh typing and cross-match
- If facilities available, check serum electrolytes, serum creatinine and blood pH

Question?

What could you do to help your staff be ready for an emergency?
The Emergency Team

- Remember: Everybody can resuscitate when necessary
- Have a recognized team who are trained and ready for emergencies
- The roles: Change Person, Runner, Supplier, Assistant

Responsibilities - Person One: Charge Person

- Receive patients
- Does quick assessment/rapid appraisal and decide on management steps
- Stabilizes patients (massage uterus, gives oxygen, initiates immediate resuscitation, gives directions to other)
- Stays with patients until specialized care arrives for referral
- Documents findings and actions taken

Person Two: Runner

-Sounds alarm, telephones or runs to inform doctors when alarm is raised
-Brings emergency tray or trolley to site
-Assists as needed (e.g., gathers equipments, starts, administers emergency drugs, ventilation, cardiac massage, etc.)
-Monitors vital signs
-Records vital signs and treatment given
Person Three: Supplier

- Checks emergency tray at the beginning of each shift
- Brings emergency tray to site of emergency
- Brings protective wear to site when alarm is raised
- Brings trolley/drips stands, etc., as needed
- Takes sample to labs
- Calls lab technicians if beside lab work necessary

Person Four: Assistant

- Care for newborn if well
- Reassure relatives/friends—escort family members away from bed; keeps family informed of situation
- Assist with crowd control as needed
- Assist in clean up of patient

Emergency Tray/ Trolley

Items List:
- Ambu bag + face mask
- Airway
- Sphygmomanometer
- Stethoscope
- Cotton dressings
- Gauze dressing
- Plaster
- Scissors
- Tourniquet
- Gloves
- Syringe and needles
- Emergency packs:
  - e.g. PPH, eclampsia
- Iv fluids
- Drugs
- Oxygen source + tube
- Foley catheter
O/G Emergency Packs

Surgical/for shock
- IV Fluids 1l(N/S or rI)
- IV Cannula (X2)
- Blood-giving set
- Specimen cont (G/xm)
- Foley catheter
- Pair of gloves
- Drugs
  - Oxytocin 20 u (x2)
  - Ergot 0.2 mg (X2)

Medical/ e. g., eclampsia
- IV fluid 1l(D/S or rI)
- Iv cannula (X2)
- Administration set
- Specimen container
- Pair of gloves
- Foley catheter
- Drugs
  - Mag SO4
  - NIFEDIPINE 20mg
  - HYDRALAZINE 20mg
  - Calcium gluconate

Implementing a Rapid Assessment Scheme

- Train all staff to act in coordinated way when woman arrives at facility
- Practice clinical or emergency drills with staff
- Ensure that access is not blocked, equipment is in working order and staff are properly trained
- Clearly identify women in waiting room who needs prompt or immediate attention
- Agree on schemes by which woman with emergencies can be exempted from payment

Team Work

- Roles and responsibilities are defined on each shift
- PROMPT RESPONSE to emergency call
  - Emergency tray must always be in ready
Using the Partograph (Cont…)

- Molding:
  - 1: sutures apposed
  - 2: sutures overlapped but reducible
  - 3: sutures overlapped and not reducible
- Cervical dilatation: Assess at every vaginal examination, mark with cross (X)
- Alert line: Line starts at 4 cm of cervical dilatation to the point of expected full dilatation at the rate of 1 cm per hour
- Action line: Parallel and 4 hours to the right of the alert line

Using the Partograph (Descent)

- Descent assessed by abdominal palpation: Part of head (divided into 5 parts) palpable above the symphysis pubis; recorded as a circle (O) at every vaginal examination. At 0/5, the sinciput (S) is at the level of the symphysis pubis.

Using the Partograph (Timing)

- Hours: Time elapsed since onset of active phase of labor (observed or extrapolated)
- Time: Record actual time
- Contractions: Chart every half hour; palpate the number of contractions in 10 minutes and their duration in seconds
  - Less than 20 seconds:
  - Between 20 and 40 seconds:
  - More than 40 seconds:
Basic Postpartum Care Provision (Cont...)

- During every visit:
  - Assessment of condition of mother and baby
  - Provide all elements of basic care package
  - If abnormal signs or symptoms provide additional care
  - Integrate maternal and newborn care visits when possible
- During return visit:
  - Make necessary changes to care plan (based on assessment)
  - Review and update mother’s and newborn’s complication readiness plan
  - Reinforce key messages
  - Replenish supply of supplements and drugs/medications

Using the Partograph (Vital Signs and Urine)

- Temperature: Record every 2 hours
- Pulse: Record every 30 minutes and mark with a dot (•)
- Blood pressure: record every 4 hours and mark with arrows
- Protein, acetone and volume: Record every time urine is passed

The Modified WHO Partogrpah
- Sample Partograph for Normal Labor

- Partograph Showing Obstructed labor

- Partograph Showing Inadequate Uterine Contractions Corrected with Oxytocin (Oxytocin should have been started 2 hours earlier – hour 2)
Restricted Use of Episiotomy

- Implications for practice: Clear evidence to restrict use of episiotomy in normal labor
- Further trials needed to assess use of episiotomy at:
  - Assisted delivery (forceps or vacuum)
  - Preterm delivery
  - Breech delivery
  - Predicted macrosomia
  - Presumed imminent tears (threatened 3rd degree tear or history of 3rd degree tear with previous delivery)

Clean Delivery

- Infection accounts for 11% of all maternal deaths
- Infection/pneumonia accounts for 26% of newborn deaths
- Tetanus accounts for 7% of newborn deaths
- These deaths can be largely avoided with infection prevention practices

Infection Prevention Practices

- Wear protective clothing (shoes, apron, glasses)
- Wash hands
- Wear gloves during vaginal examination, during birth of newborn and when handling placenta
- Use disposable materials once and decontaminate reusable materials throughout labor and childbirth
- Wash perineum with soap & water and keep it clean
- Ensure that surface on which newborn is delivered is kept clean
- Sterile or high-level disinfect instruments, gauze and ties for cutting cord
Neglected Area of Care

- Few women receive postpartum care.
- An estimated 70% of women in developing countries do NOT receive postpartum care.
- In a study by Forte et al. of 29 countries, those women who received PPC receive it within 2 days, but for the other nine countries, the peak of PPC occurs 7-41 days after birth.
- (Forte A et al. 2006. Postpartum Care Levels and Determinants in Developing Countries.)

Best Practices: Third Stage of Labor

- Offer active management of third stage for ALL women:
  - Oxytocin administration
  - Controlled cord traction
  - Uterine massage after delivery of the placenta to keep the uterus contracted
  - Routine examination of the placenta and membranes
  - Routine examination of vagina and perineum for lacerations and injury

Question?

- How effective is active management of the third stage of labor at preventing postpartum hemorrhage?
ICM/FIGO Joint Statement on Active Management of the Third Stage of Labor (AMTSL)

- AMSTL has been proven to reduce the incidence of postpartum hemorrhage, reduce the quantity of blood loss and reduce the use of transfusion
- AMSTL should be offered to all women who are giving birth
- Every attendant at birth needs to have the knowledge, skills, and critical judgement needed to carry out AMSTL

Best Practices: Labor and Childbirth

- Use non-invasive, non-pharmacological methods of pain relief during labor (massage, relaxation techniques, etc.):
- Offer oral fluids throughout labor and childbirth

Position in Labor and Childbirth

- Allow freedom in position and movement throughout labor and childbirth
- Encourage any non-supine position:
  - Side lying
  - Squatting
  - Hands and knees
  - Semi-sitting
  - Sitting
Position in Labor and Childbirth (continued)

- Use of upright or lateral position compared with supine or lithotomy position is associated with:
  - Shorter second stage of labor
  - Fewer assisted deliveries
  - Fewer episiotomies
  - Fewer reports of severe pain
  - Less abnormal heart rate patterns for fetus
  - More perineal tears
  - Blood loss > 500 mL

Gupta and Nikodem 2000.

4 Million Newborn Deaths - When?

- Up to 50% of neonatal deaths occur in the first 24 hours
- 75% of neonatal deaths occur in the first week
- 3 million deaths

Source: Lawn JE et al Lancet 2005, Based on analysis of 47 DHS datasets (1990-2003), 10,048 neonatal deaths

Presence of Female Relative During Labor:

- Support from female relative improves labor outcomes including:
  - Shorter labours
  - Improved newborn outcomes
  - Reduced incidence post partum depression
  - And many others
Best Practices in Managing Labor Using the Partograph

Best Practices in Maternal and Newborn Care

Question?

- What basic care should be included in care of the postpartum mother?

Usefulness of the Partograph

- Assessment of fetal well-being
- Assessment of maternal well-being
- Assessment of progress of labor
Measuring Fetal Well-Being during Labor

- Fetal heart rates and pattern
- Degree of molding, caput
- Color of amniotic fluid

Measuring Maternal Well-Being during Labor

- Pulse, temperature, blood pressure, respiration
- Urine output, ketones, protein

Measuring Progress of Labor

- Cervical dilatation
- Descent of presenting part
- Contractions
  - Duration
  - Frequency
- Alert and action lines
Using the Partograph

- Patient information: Name, gravida, para, hospital number, date and time of admission and time of ruptured membranes
- Fetal heart rate: Record every half hour
- Amniotic fluid: Record the color at every vaginal examination:
  - I: membranes intact
  - C: membranes ruptured, clear fluid
  - M: meconium-stained fluid
  - B: blood-stained fluid

Using the Partograph (Cont…)

- Molding:
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Basic Postpartum Care Provision (Cont...)

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Partograph Showing Inadequate Uterine Contractions Corrected with Oxytocin (Oxytocin should have been started 2 hours earlier – hour 2)
Best Practices in Inspection and Repair of Vaginal Sulcus, Periurethral and Cervical Tears

Best Practice in Maternal and Newborn Care

Breastfeeding and Breast Care
- Early and exclusive breastfeeding
- Breast care
- Breastfeeding information and support – provide as needed

Objectives of Repair of Vaginal Sulcus, Periurethral and Cervical Tears
- Prevent blood loss
- Facilitate return of genital tract to sexual and reproductive health
**Question?**

- What is the difference between a vaginal sulcus, periurethral and cervical tear?

---

**Definitions**

- **Vaginal Sulcus Tear(s):** One or more lacerations/tears of one or both sides of the vagina
- **Periurethral Tear(s):** One or more lacerations/tears near the urethra
- **Cervical Tear(s):** One or more lacerations/tears of the cervix

---

**Question?**

- What anesthesia is generally used for repair of a vaginal sulcus or periurethral tear?
Anesthesia for Repair of Vaginal Sulcus or Periurethral Tear

- Anesthesia of choice – 0.5% lignocaine.
- Use approximately 10mL of lignocaine. If more that 40mL is needed, add adrenaline to the solution. Do not use more that 50mL.
- Aspirate to be sure that no vessel is penetrated.
- Anesthetize at least 2 minutes prior to suturing, and test that anesthesia has been effective.

Question?

What anesthesia is generally used for repair of a cervical tear?

Anesthesia for Cervical Tear

- Anesthesia is not required for most cervical tears:
  - Emotional support and encouragement is needed. Relief of anxiety is important in reducing discomfort
  - If tears are high and extensive, give pethidine and diazepam IV slowly (do not mix in same syringe) or use ketamine.
Suture

- For vaginal sulcus tear, use 2-0 chromic or vicryl suture
- For periurethral tears, use 3-0 or 4-0 chromic or vicryl suture
- For cervical tears, use 0 chromic suture

Tips

- Start suture 1cm above apex of vaginal or cervical tears to catch any vessels that may have retracted
- Insert a catheter before beginning repair of periurethral tears to prevent damage to urethra
- Always use forceps, NEVER your fingers, to handle/maneuver needle

Post-Procedure Counseling

- Change pad/cloths frequently to keep wound dry
- Do sitz/warm soapy baths 3-4 times per day
- Do not insert anything in the vagina
- Get rest and good nutrition
- Delay intercourse to avoid breaking sutures
- Do not return for suture removal as they are absorbable
- Return within a week for check-up
Best Practices in Postpartum Care of the Mother

Session Objective

- By end of session, participants will be able to:
  - Describe the significance of postpartum care
  - Describe client assessment during the postpartum period
  - Describe the elements of care provision of the postpartum mother

Basic Postpartum Care Provision

- Mother and baby should be seen at 6 hours after birth, and again before discharge if in a facility; or approximately 6 hours after birth if delivered at home
- Every mother and baby should be visited again by a provider or trained community health worker by 72 hours after birth
When is the mother most vulnerable? (evidence from Matlab, Bangladesh)

4 Million Newborn Deaths - When?

Neglected Area of Care

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**Basic Postpartum Care Provision (Cont...)**

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  - Assessment of condition of mother and baby
  - Provide all elements of basic care package
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- During return visit:
  - Make necessary changes to care plan (based on assessment)
  - Review and update mother’s and newborn’s complication readiness plan
  - Reinforce key messages
  - Replenish supply of supplements and drugs/medications

**Question?**

- What basic care should be included in care of the postpartum mother?

**Basic Postpartum Care Provision (Cont...)**

- Ongoing supportive care up to discharge
- Basic care package:
  - Breastfeeding and breast care
  - Complication readiness plan
  - Support for mother-baby-family relationships
  - Family planning
  - Nutritional support
  - Self-care and other healthy practice
  - Immunizations and other preventive measures
Breastfeeding and Breast Care

- Early and exclusive breastfeeding
- Breast care
- Breastfeeding information and support – provide as needed

Question?

- For how many months is it recommended that a woman should continue breastfeeding?

Breastfeeding and Breast Care (Cont...)

- Feeding guidelines:
  - Initiation of breast feeding especially colostrum within an hour of birth
  - Breastfeed exclusively for first 6 months – no other food or fluids
  - Breastfeed on demand day and night – every 2-3 hours during first weeks
Breastfeeding and Breast Care (Cont...)

- Additional advice:
  - Choose position that is comfortable and effective
  - Use both breasts at each feed; do not limit time at either
  - Ensure adequate sleep/rest – take nap when baby sleeps
  - Ensure adequate food/fluid intake

Breastfeeding and Breast Care (Cont...)

- Breast care:
  - To prevent engorgement, breastfeed every 2-3 hours
  - Wear supportive (but not tight) bra or binder
  - Keep nipples clean and dry
  - Wash nipples with water only once per day – no soap

Complication Readiness Plan

- At first visit after birth:
  - Introduce concept and each element
  - Assist in developing plan
- Return visits:
  - Check arrangements made
  - Note changes and problems
- Components:
  - Appropriate healthcare facility for emergency care
  - Emergency transportation
  - Emergency funds
  - Decision-maker/decision-making process
  - Support person/companion
  - Blood donor
  - Danger signs for mother and newborn
Complication Readiness Plan (Cont...)

- Danger signs: ensure that woman and family know danger signs for her and her newborn, which indicate need to enact complication readiness plan

Question?

- What are the primary indications for use of the vacuum extractor?

Complication Readiness Plan (Cont...)

- Maternal danger signs:
  - Vaginal bleeding (heavy or sudden increase)
  - Breathing difficulty
  - Fever
  - Severe abdominal pain
  - Severe headache/blurry vision
  - Convulsions/loss of consciousness

- Foul-smelling discharge from vagina or tears/incisions
- Pain in calf, with or without swelling
- Verbalization/behavior indicating she may hurt self or baby; hallucinations
Support for Mother-Baby-Family Relationships (Cont...)

- Bonding
  - Encourage touching, holding, exploring
  - Encourage the baby to sleep with the mother

- Challenges
  - Discuss woman’s increased need for rest and (if breastfeeding) intake of food/fluids with family

Support for Mother-Baby-Family Relationships (Cont...)

- Support
  - Encourage sharing in care of newborn
  - Assist in devising strategies for overcoming challenges

- Information
  - Discuss key aspects of postpartum and newborn care
  - Encourage questions

- Encouragement and praise
  - Help build confidence
  - Provide reassurance that woman is capable of caring for newborn

Family Planning

- Discuss:
  - Birth spacing – healthy timing and spacing
    - Intervals of 2 - 5 years beneficial to women and babies
  - Woman’s previous experience, beliefs, preferences regarding contraception
  - Safe methods for postpartum women – benefits and limitations of each
  - Available methods and how to access them
Family Planning (Cont...)

- Discuss (cont.):
  - Return of fertility after birth:
    - Not predictable
    - Can occur before menstruation resumes
    - On average, women who:
      - Do not breastfeed, ovulate by 11 weeks
      - Breastfeed exclusively for 3 months, ovulate by 4-5 months
      - Breastfeed exclusively for 6 months, ovulate by 7 months (due to lactational amenorrhea)
      - Ovulation can occur as early as 4-6 weeks after birth

Family Planning (Cont...)

- Discuss (Cont...):
  - Limitations of LAM, for women who choose this method
  - Dual protection with condoms
  - Assist the woman in choosing a method that best meets her needs and fertility goals
  - Ensure that she receives an appropriate method or has access to the service

Nutritional Support

- General guidelines:
  - 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
    - Folic acid, vitamin A, zinc, calcium, iron and other nutrients if micronutrient requirements cannot be met through food sources
Flexion

When flexion is complete, the shortest anteroposterior diameter, the suboccipitobregmatic (dotted line), is passing through the pelvic inlet. The solid dark line indicates the mentoccipital diameter.

Self Care and Other Healthy Practices

- Tips:
  - Individualize messages based on woman’s history and other relevant findings
  - Encourage woman’s family to be present during these discussions

Self Care and Other Healthy Practices (Cont…)

- Prevention of infection/hygiene:
  - Good general hygiene (handwashing, safe food and water preparation/handling, bathing and general cleanliness)
  - Good genital hygiene – especially important for postpartum women because more susceptible to infection
Self Care and Other Healthy Practices (Cont...)

- Good genital hygiene (cont.):
  - Keep vulvar/vaginal area clean and dry
  - Wash hands before and after touching
  - Wash genitals after using toilet
  - Change pads/cloths 6 times/day in first week; then 3 times/day

Self Care and Other Healthy Practices (Cont...)

- Rest and activity:
  - Increase rest time
    - All postpartum need additional rest to speed recovery
    - Breastfeeding women need even more rest
  - Wait at least 4 to 5 weeks to resume normal activity; start back gradually

Self Care and Other Healthy Practices (Cont...)

- Sexual relations and safer sex:
  - Avoid sex for at least 2 weeks and until it is comfortable
  - Increased susceptibility to STIs during postpartum period
  - Consistent use of condoms
Immunization and Other Preventive Measures

- Tetanus toxoid immunization
- Iron/folate supplementation
- Region/population-specific preventive measures, e.g., malaria prevention

Immunization and Other Preventive Measures (Cont...)

<table>
<thead>
<tr>
<th>Tetanus Toxoid Immunization Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TT Injection</strong></td>
</tr>
<tr>
<td>TT 1</td>
</tr>
<tr>
<td>TT 2</td>
</tr>
<tr>
<td>TT 3</td>
</tr>
<tr>
<td>TT 4</td>
</tr>
<tr>
<td>TT 5</td>
</tr>
</tbody>
</table>

Engagement

Engagement is defined as the point when the widest diameter of the presenting part (in a cephalic occipital presentation, the biparietal diameter) has passed through the pelvic inlet. In most circumstances, when the head is engaged, the lowermost part of the presenting part is at the level of ischial spines, or 0 station.
Immunization and Other Preventive Measures (Cont...)

- In areas of endemic disease/deficiency:
  - Insecticide-treated nets (ITNs) for malaria – both mother and baby should sleep under one
  - Presumptive treatment for hookworm infection
  - Vitamin A supplements
  - Iodine supplements

Scheduling a Return Visit

- Advise her to bring her relative with her if possible
- Ensure that she understands that she should not wait for next appointment if she or newborn is having problems or develops any danger sign
- Review maternal and newborn danger signs and complication readiness plan

Summary

- Postpartum care provision includes:
  - Ongoing supportive care up to discharge
  - Basic care provision for mother and newborn
    - Breastfeeding and breast care
    - Complication readiness plan
    - Support for mother-baby-family relationships
    - Newborn care
    - Family planning
    - Nutritional support
    - Self-care and other healthy practices
    - Immunizations and other preventive measures
  - Care is individualized according to woman’s and newborn’s needs, history, and other findings
Session Objectives

- To identify best practices for managing breech birth:
  - Procedures to assist in delivery
  - Post-procedure tasks

Indications for Vaginal Breech Birth

- Frank or complete breech presentation
- Cervix completely dilated
- No evidence of cephalopelvic disproportion
Breech Presentations

Frank  Complete

Overall Tasks

- Plot all parameters on partograph during labor
- Start an IV infusion
- Provide emotional support and encouragement
- Perform all maneuvers gently and without force

Procedure: Delivery of Buttocks and Legs

- Once buttocks are in vagina, tell woman she may push
- Perform episiotomy if perineum is tight.
- Allow buttocks to deliver until shoulder blades are seen.
- Gently hold buttocks in one hand, but do not pull. Do not hold by flanks or abdomen as this may cause kidney or liver damage.
Holding the Baby at the Hips

Procedure: If Legs Do Not Deliver Spontaneously

- Deliver one leg at a time
- Push behind the knee to bend the leg
- Grasp the ankle and deliver the foot and leg
- Repeat for other leg
- **DO NOT PULL THE BABY WHILE THE LEGS ARE BEING DELIVERED**

Procedure: Normal Delivery of the Arms

- If the arms are felt on the chest:
  - Allow arms to disengage spontaneously
  - After delivery of first arm, lift buttocks toward mother’s abdomen
  - If arm does not delivery spontaneously, place one or two fingers in elbow and bend arm, bringing down over baby’s face.
PROCEDURE

- Lovset’s Maneuver

Procedure: If the Baby’s Body Cannot Be Turned to Deliver Anterior Arm first

- Lift baby up by ankles
- Move baby's chest towards woman's inner leg. The shoulder that is posterior should deliver.
- Deliver the arm and hand
- Lay the baby back down by ankles so that anterior shoulder now delivers with arm and hand.

PROCEDURE – Delivery of head

- Mauriceau Smellie Veit Maneuver
Procedure: If Head is Entrapped

- Catheterize bladder
- Have and assistant hold the baby while you apply piper forceps
- Wrap baby in cloth or towel and hold baby up
- Use forceps to flex and deliver that baby’s head
- Apply firm pressure above the woman’s pubic bone to flex baby’s head

PROCEDURE

- Complete steps as normal delivery after delivering the baby, including active management of third stage of labor

Post-Procedure Tasks

- Keep baby warm and dry
- Examine the woman carefully for tears of the vagina, perineum and cervix, and repair episiotomy
- Complete records
Best Practices in Management of Headache, Convulsions, Loss of Consciousness or Elevated Blood Pressure

Best Practices in Pregnancy and Childbirth

Session Objectives

- Discuss best practices for diagnosing and managing hypertension, pre-eclampsia and eclampsia
- Describe strategies for controlling hypertension
- Describe strategies for preventing and treating convulsions in eclampsia

What is the problem?

- Pregnant or recently postpartum woman who:
  - Has elevated blood pressure
  - Complains of headache or blurred vision
  - Is found unconscious or convulsing
Elevated Blood Pressure

- Classifications:
  - Chronic hypertension
  - Pregnancy-induced hypertension
    - Pregnancy-induced hypertension without proteinuria
    - Mild pre-eclampsia
    - Severe pre-eclampsia
    - Eclampsia

Questions?

- What is pre-eclampsia?
- When can it occur?

Pre-Eclampsia

- Woman over 20 weeks gestation with:
  - Diastolic blood pressure > 90 mm Hg AND
  - Proteinuria
  - Predisposes woman to develop eclampsia
Mild Pre-eclampsia

- Two readings of diastolic blood pressure 90-110 mm Hg 4 hours apart after 20 weeks gestation
- Proteinuria up to 2+
- No other signs/symptoms of severe pre-eclampsia

Severe Pre-eclampsia

- Diastolic blood pressure > 110 mm Hg
- Proteinuria > 3+
- Other signs and symptoms sometimes present:
  - Epigastric tenderness
  - Headache
  - Visual changes
  - Hyperreflexia
  - Pulmonary edema
  - Oliguria

Predicting Pre-eclampsia: What do the Studies* Tell Us?

- Those women who developed gestational hypertension at an earlier gestational age were more likely to progress to pre-eclampsia.
- Approximately 15–25% of women initially diagnosed with gestational hypertension will develop pre-eclampsia
- It is difficult to predict who will develop pre-eclampsia

*Saudan et al 1998; Moutquin et al 1985
Eclampsia: Typical signs

- Convulsions occurring after 20 weeks gestation in a woman without a previously known seizure disorder. (Can also occur in first few days postpartum.)
- Proteinuria 2+ or more
- Blood pressure 90 mm Hg or more
  - A small proportion of women with eclampsia have normal blood pressure

Strategies for Preventing Eclampsia

- Antenatal care and recognition of hypertension
- Identification and treatment of pre-eclampsia by skilled attendant
- Timely delivery

- 3.4% of women with severe pre-eclampsia will have convulsion
- Eclampsia is the number one cause of in-hospital maternal death in Nepal
- Eclampsia is abrupt in onset, without warning signs in about 20% of women

Question?

- What should be your initial response when you find a woman in late pregnancy who is convulsing?
Initial Assessment and Management of Eclampsia

- Shout for help - mobilize personnel
- Rapidly evaluate breathing and state of consciousness
- Check airway, blood pressure and pulse
- Position on left side
- Protect from injury but do not restrain
- Start IV infusion with large bore needle (16-gauge)
- Give oxygen at 4 L/minute

Antihypertensive Drugs

- Drugs
  - Hydralazine
  - Labetolol
  - Nifedipine
- Principles:
  - Initiate antihypertensives if diastolic blood pressure > 110 mm Hg
  - Maintain diastolic blood pressure 90-100 mm Hg to prevent cerebral hemorrhage

Emergency!!!

- Question:
  - What do you do if a woman is suddenly convulsing?
Management During a Convulsion

- Give magnesium sulfate IM
- Gather emergency equipment (O2, mask, etc.)
- Position on left side
- Protect from injury but do not restrain

Anticonvulsive Drugs

- Magnesium sulfate – the best drug!
- Diazepam
- Phenytoin

Post-convulsion Management

- Prevent further convulsions
- Control blood pressure
- Prepare for delivery (if undelivered)
Magnesium Sulfate

- Use magnesium sulfate in
  - Women with eclampsia
  - Women with severe pre-eclampsia necessitating delivery
- Start magnesium sulfate when decision for delivery is made
- Continue therapy until 24 hours after delivery or the last convulsion, whichever occurs last

Magnesium Sulfate vs. Placebo in Women With Pre-Eclampsia: Results

- In women with severe pre-eclampsia, eclampsia occurred 11 times less often in women receiving magnesium sulfate than in women receiving placebo

Monitoring Hourly

<table>
<thead>
<tr>
<th>Assess</th>
<th>Normal Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of consciousness</td>
<td>Sleepy but arousable</td>
</tr>
<tr>
<td>Diastolic blood pressure</td>
<td>Should be maintained between 80-100mmHg</td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>16 breaths/minute or more</td>
</tr>
<tr>
<td>Deep tendon reflexes</td>
<td>Minimal but present</td>
</tr>
<tr>
<td>Fetal heart sounds (if undelivered)</td>
<td>Decrease in variability</td>
</tr>
</tbody>
</table>
**Monitoring Hourly**

<table>
<thead>
<tr>
<th>Assess</th>
<th>Abnormal Finding</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lungs</td>
<td>Pulmonary edema</td>
<td>Discontinue magnesium sulfate</td>
</tr>
<tr>
<td>Urine output</td>
<td>Falls below 30 mL/hour or 120 mL/4 hours</td>
<td>Discontinue magnesium sulfate</td>
</tr>
<tr>
<td>Uterus (after delivery)</td>
<td>Atonic uterus (postpartum bleeding)</td>
<td>Consider oxytocin for 24 hours after delivery</td>
</tr>
</tbody>
</table>

**Principles of Management**

- Timing and route of delivery: condition of mother vs. maturity of fetus.
- In eclampsia delivery should occur within 12 hours of onset of convulsions.
- Assessment of fetus: evidence of fetal compromise.
- Control of convulsions.
- Control of hypertension.
- Referral due to other organ complications: pulmonary, renal, central nervous system.

**Summary**

- There are many manifestations of increased blood pressure in pregnancy.
- It is not possible to predict which patients are at risk for severe pre-eclampsia or eclampsia.
- Vigilant care is needed to make the diagnosis.
- Once the diagnosis is made, timely, appropriate treatment can reduce morbidity and mortality.
- Anticonvulsants should be used, with magnesium sulfate being the first line.
- Antihypertensives should be employed as needed.
- Close monitoring is needed for side effects.
- Ensure woman and family are fully informed.
BEST PRACTICES IN MANAGING FEVER AFTER CHILDBIRTH

Best Practices in Maternal and Newborn Care

Objectives

- By the end of the session the learner will be able to
- Discuss the Prevalence of Post Partum Infection
- Describe Risk Factors for and Diagnosis of Post Partum Infection
- Discuss Strategies for Preventing Postpartum Infection
- Describe Clinical Treatment Approaches
- Programmatic Approaches for Prevention and Treatment

Questions?

- Would you consider the use of the partograph an important intervention for reducing post partum infection?
### Distribution of Maternal Deaths


<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unclassified</td>
<td>6%</td>
</tr>
<tr>
<td>Other Indirect</td>
<td>12%</td>
</tr>
<tr>
<td>Ectopic Pregnancy</td>
<td>0%</td>
</tr>
<tr>
<td>Embolism</td>
<td>0%</td>
</tr>
<tr>
<td>Other Direct</td>
<td>2%</td>
</tr>
<tr>
<td>Anaemia</td>
<td>13%</td>
</tr>
<tr>
<td>Obstructed Labor</td>
<td>9%</td>
</tr>
<tr>
<td>Abortion</td>
<td>6%</td>
</tr>
<tr>
<td>Sepsis</td>
<td>12%</td>
</tr>
<tr>
<td>Hypertensive</td>
<td>9%</td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>31%</td>
</tr>
</tbody>
</table>

### Asia Specific Distribution

- [4](#)

### Question?

- What are some natural barriers to maternal infection?

### Natural Barriers to Maternal Infection

- Amniotic fluid is a wonderful culture medium!
- Placental membranes form a barrier at the uterine level
- Mucus plug in the cervix
- Lochia (post partum discharge) is a natural effluent which keeps pathogens flowing outward
- Increased pelvic blood flow at the systemic level
Risk Factors for Postpartum Infections

- Frequent vaginal examinations
- Prolonged and obstructed labor – Length of Labor
- Prelabour rupture of membranes – Length of ROM
- Cesarean section
- Preterm birth
- Episiotomies, vacuum extractions, forceps delivery, catheterization
- Poor maternal hygiene
- Maternal anemia
- Micronutrient deficiencies
- Sexually transmitted infections

Question?

- What are some causes of fever after childbirth?

Vaginal Bleeding after Childbirth (Cont…): Management

- If signs of uterine atony:
  - Massage uterus
  - Start IV infusion (plus oxytocin 20 units/liter IV fluids) or ORS
  - Give oxytocin 10 units IM*
  - Ensure bladder empty (catheterize if needed)
Postpartum Infections and Subsequent Maternal Morbidity

- Pelvic inflammatory disease
- Chronic pelvic pain
- Dysmenorrhoea
- Menorrhagia
- Infertility

Prevention Strategies At the Time of Childbirth

- Reduce the length of labor
  - Partograph
  - Ambulation
  - Labor support
  - Appropriate controlled augmentation of labor
- Reduce the time of rupture of membranes
  - Delay artificial rupture of membranes
  - Shorten labor
- Reduce the number of vaginal exams
  - Partograph helps to schedule vaginal examination

Prevention Strategies At the Time of Childbirth

- Infection prevention practices for every delivery:
  - Hand washing
  - Minimum manipulation
  - High-level disinfected or sterile gloves for examination
  - Avoid unnecessary procedures (e.g., episiotomy)

- 5 Cleans:
  - Clean hands and nails
  - Clean surface
  - Clean blade
  - Clean tie
  - Clean perineum
Providing Prophylactic Antibiotics for Cesarean Section: Cochrane Review

- Objective: To determine which antibiotic regimen is most effective in reducing infectious morbidity in women undergoing cesarean section
- Methods: 51 randomized controlled trials
- Outcomes: Fever, wound infection, urinary tract infection, other serious infections, adverse reactions, cost, newborn outcomes

Hopkins and Smaill 2000.

Results:
- Ampicillin and 1st generation cephalosporin have similar efficacy in reducing postoperative endometritis
  - No need for more broad spectrum agents
  - Single dose is same as multiple doses
  - Need randomized controlled trial to test optimal timing (pre-operative vs. at cord clamp)


Managing Metritis: Cochrane Review

- Results:
  - Combination antibiotics are necessary for metritis
  - Should include a penicillin (ampicillin), an aminoglycoside (gentamicin) and clindamycin/metronidazole
  - Single daily dosing of gentamicin is effective
  - Continued oral antibiotics after clinical improvement is not necessary in cases of uncomplicated endometritis

Antibiotics for Metritis

- IV antibiotics:
  - Ampicillin every 6 hours
  - Gentamicin every 24 hours
  - Metronidazole every 8 hours
- Continue until fever-free for 48 hours
- No oral antibiotics after treatment:
  - Not proven to add any benefit
  - Only add to expense

Post Partum Infections: Summary

- Post Partum Infection/Sepsis remains an important cause of maternal morbidity and mortality
- 3 biggest risk factors are:
  - Prolonged labor, prolonged ROM and multiple exams (Ahhh, the partograph!)
- Most common diagnosis of post partum fever is Metritis
- Antibiotics: Less is more!
Best Practices in the Management of Vaginal Bleeding After Childbirth

Best Practices in Maternal and Newborn Care

Session Objectives

- By end of session, participants will be able to:
  - Describe the significance of postpartum hemorrhage
  - Discuss the causes of postpartum hemorrhage
  - Discuss the prevention of postpartum hemorrhage
  - Describe the management of postpartum hemorrhage

Vaginal Bleeding after Childbirth

- WARNING: Rapid action in response to PPH is critical!
- More than half of all maternal deaths occur within 24 hours of childbirth, mostly due to excessive bleeding.
- Uterine atony is the major factor of postpartum hemorrhage (PPH) which causes more than one-quarter of all maternal deaths worldwide.
Definition

- Vaginal bleeding in excess of 500ml or any amount sufficient enough to cause cardiovascular compromise.
- Primary and secondary PPH
- FACT
- Estimated amounts of blood loss are notoriously low, often half the actual loss.
- The lower the Hb level the poorer is the woman’s tolerance of blood volume loss.

The Causes

- Atonic uterus
- Retained placenta or fragments
- Tears of uterus, cervix, vagina, perineum
- Coagulation defects
- Inversion of uterus
- Infection (delayed PPH)

Management

- This is a life threatening complication which must be managed promptly and effectively.
- Get all the help you can.
- Prevention is the best management.
Question?

- What measures can we take to prevent postpartum hemorrhage?

Prevention

- CLIENT CARE
- Prevent Prolonged Labor
- Active Management of the Third Stage of Labor
- Avoid perineal/vaginal trauma
- Monitor closely

Emergency Preparedness

- Have emergency PPH pack ready

ICM/FIGO Joint Statement on Active Management of the Third Stage of Labor (AMSTL)

- AMSTL has been proven to reduce the incidence of postpartum hemorrhage, reduce the quantity of blood loss and reduce the use of transfusion
- AMSTL should be offered to all women who are giving birth
- Every attendant at birth needs to have the knowledge, skills, and critical judgement needed to carry out AMSTL
Prevention: Be prepared

- ALL women are at risk of PPH!
- Women who are predisposed to fatal consequences of PPH include women with:
  - Over distended uterus (Twins, big baby, Polyhydramnios)
  - Prolonged labour
  - Severe Pre-eclampsia/Eclampsia
  - Prolonged Intrauterine Death
  - APH (weakens)
  - Anemia (weakens)

Question?

- What are the first things you should do when you encounter a woman with bleeding after third stage (postpartum hemorrhage)?

General Management Steps

- Call for help
- Perform Rapid Evaluation (Vital Signs - BP, pulse, Respiratory Rate, Pallor & Cause )
- Massage Uterus
- If shock is present start Immediate Resuscitation
  - Start IV Infusion 1 litre/15 min
  - Take Blood for Grouping and Cross-matching
  - Give Oxygen
  - Elevate feet and keep woman warm.
Iv Fluid Replacement: In Shock

- Start resuscitation with intravenous fluids (Normal saline or Ringers lactate)
- Use large bore cannula (16 or bigger)
- Volume to give
  - First 1000 ml (500 ml x 2) rapidly in 15-20 mins
  - GIVE AT LEAST 2000 ml (500 X 4) IN FIRST HOUR
  - Aim to replace 2-3x the volume of estimated blood loss.
  - If condition stabilizes then adjust rate to 1000 mls / 6 hrly
- Monitor BP, Pulse every 15 mins and Urine output hourly (> 30 ml/hr)
- Avoid Dextran: They interfere with grouping and x matching as well as coagulation of blood

Management: Rapid Assessment

- Assess for signs of following conditions and perform appropriate action before proceeding with additional care:
  - Uterine atony (uterus soft/not contracted)
  - Tears of perineum, vagina, cervix
  - Retained placenta or placental fragments
  - Ruptured or inverted uterus
  - Delayed postpartum hemorrhage (PPH)

Vaginal Bleeding after Childbirth (Cont…): Management

- If signs of uterine atony:
  - Massage uterus
  - Start IV infusion (plus oxytocin 20 units/liter IV fluids) or ORS
  - Give oxytocin 10 units IM*
  - Ensure bladder empty (catheterize if needed)
Vaginal Bleeding after Childbirth: Management (Cont…)

- If bleeding continues:
  - Perform bimanual compression of uterus OR compression of abdominal aorta (per next two slides)
  - Give additional oxytocics e.g. Misoprostol, Ergometrine, Prostaglandins if available.
- If bleeding continues, facilitate urgent referral/transfer
- If bleeding stops, proceed with additional care plus measure woman’s hemoglobin in 2 or 3 hours

Bimanual Compression of the Uterus

- Wearing HLD gloves, insert hand into vagina; form fist.
- Place fist into anterior fornix and apply pressure against anterior wall of uterus.
- With other hand, press deeply into abdomen behind uterus, applying pressure against posterior wall of uterus.
- Maintain compression until bleeding is controlled and uterus contracts.

Compression of Abdominal Aorta

- Apply downward pressure with closed fist over abdominal aorta through abdominal wall (just above umbilicus slightly to patient’s left)
- With other hand, palpate femoral pulse to check adequacy of compression
  - Pulse palpable = inadequate
  - Pulse not palpable = adequate
- Maintain compression until bleeding is controlled
Atonic Uterus!
First Action Is Massage Uterus

<table>
<thead>
<tr>
<th>DRUG</th>
<th>DOSE &amp; ROUTE</th>
<th>CONT. DOSE</th>
<th>MAX DOSE</th>
<th>CONTRA-INDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>OXYTOCIN</td>
<td>IM 10 U OR IV 20 U in 1000 ml NS at &gt;60 drp/min OR S-10 U slow IV push</td>
<td>IV 20 u in 1500ml at 40 drp/min</td>
<td>Not &gt; 40 U infused at rate of 0.02-0.04 U/min.</td>
<td>No IV admin., not even slow IV push unless IV fluids are running</td>
</tr>
<tr>
<td>ERGOMETRINE</td>
<td>IM OR IV Slowly 0.2mg</td>
<td>Repeat 0.2mg after 15 mins if required every four hours</td>
<td>Five doses (Total 1.0 mg)</td>
<td>High BP, Heart Disease</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DRUG</th>
<th>DOSE &amp; ROUTE</th>
<th>CONT. DOSE</th>
<th>MAX DOSE</th>
<th>CAUTIONS &amp; CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MISOPROSTOL (CYTOTEC)</td>
<td>ORAL/SL INTRAVAG RECTAL 200-400mcg (600mcg)</td>
<td>200mg Every 4 hours</td>
<td>2000mg</td>
<td>Asthma, Heart Dis*</td>
</tr>
<tr>
<td>PROSTAGLAN DIN F2a</td>
<td>IM only 0.25mg</td>
<td>0.25mg Every 15 Minutes</td>
<td>Total 8 Doses=2 mg</td>
<td>Asthma, Heart Dis*</td>
</tr>
</tbody>
</table>

Question?
- If a woman with postpartum hemorrhage has no signs of atonic uterus, what should you do?
Management of Atonic Uterus (Cont…)

- If no signs of uterine atony:
  - Examine vagina, perineum, cervix for tears
  - Start IV infusion or oral rehydration solution (ORS) – if woman is conscious
  - Keep woman warm; elevate legs
  - Ensure bladder empty (catheterize if needed)
  - Proceed with assessment

Additional Management (Cont…)

- If signs of tears:
  - If extensive tears (3rd or 4th degree), facilitate urgent referral/transfer
  - If 1st or 2nd degree tears, perform repairs
  - If signs of retained placenta, perform appropriate management to deliver placenta
  - If signs of retained placental fragments, perform appropriate management to remove fragments

Anaesthesia and Analgesia:
Local anaesthesia

- Lidocaine
- Only use in concentration of 0.5%. (Drug is usually available in 1% & 2% preparations)
- If more than 40 ml is required add adrenaline to delay dispersion
- MAX safe dose is 4mg/kg BW for plain and 7mg/kg BW with adrenaline.
- Anaesthetic effect can last for 2hrs
- Dose can be repeated after 2hr as needed
- Avoid injecting into vessel
Retained Placenta

- If you can see the placenta, ask the woman to push it out – kneeling on bed may help
- If you can feel the placenta in the vagina, remove it
- If the placenta is still not delivered:
  - Give oxytocin 10 units IM (if not already given for AMTSL) and attempt CCT with the next contraction
  - Catheterize the bladder using aseptic technique if not already done
  - If CCT unsuccessful, attempt manual removal of the placenta

Managing Retained Placenta

- Ensure Bladder is Empty
- Apply Controlled Cord Traction: If fails
- Repeat Oxytocin 10u IV: If no success of CCT in 30 minutes
- Attempt Manual Removal of Placenta
  - Give Diazepam 10mg IM/IV
  - Give antibiotics: (Ampicillin 2g + Metronidazole 500mg)
  - Give Oxytocin 10IU IM
  - If heavy bleeding give Oxytocin 20IU /1000 mls NS or RL at 60 dpm
  - Monitor BP, Pulse, Pad and Urine output closely
  - Add Ergot or Prostaglandin if bleeding continues
  - Transfuse PRN and treat for anemia

Anaesthesia and Analgesia for short procedures ≤30 mins

- Pethidine 1mg/kg BW
  - IM or IV slowly
  - (max 100mg dose)
  - Give Promethazine (Phenergan) if vomiting occurs
- Diazepam 10mg IV at rate of 1mg every two mins.
- Monitor RR closely Stop if
- RR<10/min
- DO NOT MIX THE TWO DRUGS IN SAME SYRINGE
- Ketamine for procedures < 60 mins
  - Dose 6-10 mg/ kg BW by IM or IV bolus or IV Infusion
  - 2 mg/Kg BW IV slowly last for 15 mins
  - 200mg in 1 litre D/S at 20 dpm infusion for longer procedures
  - Give Atropine 0.6 mg IM as premedication
  - Give O2  6-8L/min by mask
  - Add Diazepam 10 mg IV to avoid hallucinations
- Contraindicated in HIGH BP and Heart Disease
Retained Placenta (Cont…)

- If bleeding continues, ACT NOW! facilitate urgent referral/transfer
- If bleeding stops, continue with basic care
- Two to three hours after bleeding stops, measure the woman’s hemoglobin
  - If Hgb less than 7g/dL, facilitate urgent transfer
  - If Hgb is 7-11g/dL, treat anemia with iron/folate
- DO NOT give ergometrine as it causes tonic contractions
- AVOID forceful CCT and fundal pressure as they may cause uterine inversion

Vaginal Bleeding after Childbirth Management (Cont…)

- If signs of retained placental fragments:
  - Give uterotonic drug according to guidelines
  - Assess cervix for dilation

- If cervix is not dilated, facilitate urgent referral/transfer
- If cervix is dilated, perform appropriate management to remove fragments/tissue
  - If bleeding continues, perform bimanual compression of uterus OR compression of abdominal aorta
  - Note: Very adherent tissue may be placenta accreta. Efforts to extract fragments that do not separate easily may result in heavy bleeding or uterine perforation, which usually requires hysterectomy
Vaginal Bleeding after Childbirth Management (Cont…)

- If signs of ruptured uterus, facilitate urgent referral/transfer
- If signs of inverted uterus, perform manual correction of inverted uterus

Summary

- All women should receive AMTSL – the 3 components
- Timely and effective interventions for PPH can save women’s lives
- Ensure all women who have a blood loss of 500ml or more are noted in delivery register as having PPH
Problems

- The umbilical cord lies in birth canal below fetal presenting part
- The umbilical cord is visible at vagina following rupture of membranes

General Management

- Give oxygen at 4-6 L/minute by mask or nasal cannulae
Session Objective

- Define essential elements of early newborn care
- Discuss best practices for promoting newborn health
- Use relevant data and information to develop appropriate recommendations for essential newborn care

Specific Management (Cont…)

OR

- Turn the woman into knee – chest position (ensuring privacy) and wearing high-level disinfected gloves, insert hand into vagina and push presenting part up to decrease pressure on cord – keep hand on presenting part until cesarean section can be performed
- If cord is pulsating, the fetus is alive (cont.):
  - If available give salbutamol 0.5 mg IV slowly over 2 minutes
  - Perform immediate cesarean section

Specific management

If woman is in second stage of labor:
- Expedite delivery with episiotomy and vacuum extraction or forceps
- If breech presentation, perform breech extraction and apply forceps to after-coming head
- Prepare for resuscitation of newborn
Specific Management (Cont…)

- If cord is not pulsating, the fetus is dead. Deliver in manner that is safest and most comfortable for woman
Session Objective

- Define essential elements of early newborn care
- Discuss best practices for promoting newborn health
- Use relevant data and information to develop appropriate recommendations for essential newborn care

Newborn Deaths

- Every year:
  - 8.1 million infant deaths
  - 4 million neonatal deaths
    - 40% of all under-five mortality
  - Eight neonatal deaths every minute
  - 4 million stillbirths
  - Under-five and under-one mortality has declined significantly – but NMR has declined little
Question?

- What are the main causes of newborn mortality?

Causes of Newborn Death – Lawn et al 2006

Risk by Week of Life for the First 5 Years: The Early Postnatal Period

Newborn Deaths

- Birth process was the antecedent cause of 2/3 of deaths due to infections:
  - Lack of hygiene at childbirth and during newborn period
  - Home deliveries without skilled birth attendants

- Birth asphyxia in developing countries:
  - 3% of newborns suffer mild to moderate birth asphyxia
  - Prompt resuscitation is often not initiated or procedure is inadequate or incorrect

Newborn Deaths (Cont...)

- Low birth weight:
  - An extremely important factor in newborn mortality

- Hypothermia and newborn deaths:
  - Significant contribution to deaths in low birth weight infants and preterm newborns
  - Social, cultural and health practices delaying care to the newborn

- Countries with high STI prevalence and inconsistent prophylactic practices:
  - Ophthalmia neonatorum is a common cause of blindness

Effectiveness

- Vacuum failure rates range from 2–27%.
- Metal cups have slightly higher success rates than plastic cups, but also higher rates of adverse outcomes.
- Greater failure rate of vacuum versus forceps when the position was posterior and silastic cup was used.
- Highest VE success rate with a non-metal cup was with the M-cup, which has a delivery rate as high as forceps.
Question?

- What is the essential care for a newborn immediately after birth?

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**Essential Newborn Care Interventions**

- Clean childbirth and cord care:
  - Prevent newborn infection
- Thermal protection:
  - Prevent and manage newborn hypo/hyperthermia
- Early and exclusive breastfeeding:
  - Started within 1 hour after childbirth
- Initiation of breathing and resuscitation:
  - Early asphyxia identification and management

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**Essential Newborn Care Interventions (Cont...)**

- Eye care:
  - Prevent and manage ophthalmia neonatorum
- Immunization:
  - At birth: Bacille Calmette-Guerin (BCG) vaccine, oral poliovirus vaccine (OPV) and hepatitis B virus (HBV) vaccine (WHO)
- Identification and management of sick newborn
- Care of preterm and/or low birth weight newborn

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Cleanliness to Prevent Infection

- Principles of cleanliness essential in both home and health facilities childbirths
- Principles of cleanliness at childbirth:
  - Clean hands
  - Clean perineum
  - Clean delivery surface
  - Cleanliness in cord clamping and cutting
  - Clean cord tie

Cleanliness to Prevent Infection (Cont...)

- Infection prevention/control measures at health care facilities and after discharge
- Caretaker and all others should wash hands before touching or caring for baby
- Avoid contact with sick children and adults

Cord Care

- Do not apply dressings or substances of any kind
- If cord bleeds, re-tie
- Usually falls off 4–7 days after birth
- Until the cord falls off, place the cord outside the nappy to prevent contamination with urine/feces
- Wash with soap and clean water only (if soiled)
Thermal Protection

- **Newborn physiology:**
  - Normal temperature: 36.5–37.5°C
  - Hypothermia: < 36.5°C
  - Stabilization period: 1st 6–12 hours after birth:
    - Large surface area
    - Poor thermal insulation
    - Small body mass to produce and conserve heat
    - Inability to change posture or adjust clothing to respond to thermal stress

- **Increased hypothermia:**
  - Newborn left wet while waiting for delivery of placenta
  - Early bathing of newborn (within 24 hours)

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Hypothermia Prevention

- Deliver in a warm room
- Dry newborn thoroughly and wrap in dry, warm cloth
- Give to mother as soon as possible:
  - Skin-to-skin contact first few hours after childbirth
  - Promotes bonding
  - Enables early breastfeeding
- Check warmth by feeling newborn’s feet every 15 minutes
- Bathe after temperature is stable (after 24 hours)

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Early and Exclusive Breastfeeding

- Early contact between mother and newborn:
  - Enables breastfeeding
  - Rooming-in policies in health facilities prevents nosocomial infection
- Best practices:
  - No prelacteal feeds or other supplement
  - Giving first breastfeed within 1 hour of birth
  - Correct positioning to enable good attachment of the newborn
  - Breastfeeding on demand
  - Psycho-social support to breastfeeding mother
Early and Exclusive Breastfeeding (Cont...)  

- Starting to breastfeed:
  - Colostrum is the first milk secreted and is important for the baby for nutrition and disease protection
  - Most babies are ready to feed 15-55 minutes after birth; success at the first feeding often indicates successful later breastfeeding

- Self-attachment:
  - Place baby face down on mother’s abdomen
  - Support baby as it moves toward breast
  - Allow the baby time to mouth the nipple before taking it into the mouth

Source: SNL 2004

Early and Exclusive Breastfeeding (Cont...)  

- Signs that baby is getting enough milk:
  - The baby passes urine at least 6 times in 24 hours
  - You can hear the baby swallow the feeding
  - The mother’s breast feels softer after a feed
  - The baby gains weight over time (after the first week)
  - The baby seems content after feeding

Source: SNL 2004

Breathing Initiation and Resuscitation  

- Spontaneous breathing (> 30 breaths/min.) in most babies:
  - Gentle stimulation, if at all

- Newborn resuscitation may be needed:
  - Fetal distress
  - Thick meconium staining
  - Vaginal breech deliveries
  - Preterm

- Effectiveness of routine oro-nasal suctioning unknown:
  - Biologically plausible advantages – clear airway
  - Potentially real disadvantages – cardiac arrhythmia

  Bulb suctioning preferred (but every baby should have own bulb to prevent infection transmission)

Source: Hamilton 1999
Routine eye care

- Tetracycline 1% to both eyes all babies after birth


Immunization

- BCG vaccinations in all population at high risk of tuberculosis infection
- Single dose of OPV at birth or in the 2 weeks after birth
- HBV vaccination as soon as possible where perinatal infections are common

Counseling

- Even if the mother is being discharged a few hours after childbirth, she should be counseled about:
  - Exclusive breastfeeding
  - Hygiene — eye and cord care
  - Thermal protection
  - Danger signs and what to do about them
Question?

- What are the newborn danger signs?

Complication Readiness Plan

- Newborn danger signs:
  - Breathing difficulty
  - Convulsion, spasms, loss of consciousness, or arching of back
  - Cyanosis (blueness)
  - Hot to touch (fever)
  - Cold to touch
  - Bleeding
  - Jaundice (yellowness)

- Pallor
- Diarrhea
- Persistent vomiting or abdominal distension
- Not feeding or poor sucking
- Pus or redness of umbilicus, eyes or skin
- Swollen limb or joint
- Floppiness
- Lethargy

Summary

The essential components of normal newborn care include:

- Clean delivery and cord care
- Thermal protection
- Early and exclusive breastfeeding
- Monitoring
- Eye care
- Immunization
References

- Ganges F. 2006. Normal Newborn Care, a presentation in Accra, Ghana, Basic Maternal and Newborn Care Technical Update. (April).

References (Cont...)

Best Practices in Vacuum Extractor-Assisted Birth

Best Practices in Maternal and Newborn Care

Updated by Annie Clark, CNM

Session Objectives

1. State indications and contraindications for the use of the vacuum extractor.
2. State complications associated with vacuum extractor use for mother and baby.
3. Compare advantages and disadvantages of vacuum extractor versus forceps.
4. Compare advantages and disadvantages of soft cups and metal cups.

Mechanism of Labor

- Flexion
- Synclitism
- Descent
- Internal Rotation
- Extension
- Restitution
Station

- Station is the relationship of the lowermost part of the presenting part to an imaginary line drawn between the ischial spines.

Engagement

Engagement is defined as the point when the widest diameter of the presenting part (in a cephalic occipital presentation, the biparietal diameter) has passed through the pelvic inlet. In most circumstances, when the head is engaged, the lowermost part of the presenting part is at the level of ischial spines, or 0 station.

Flexion

When flexion is complete, the shortest anteroposterior diameter, the suboccipitobregmatic (dotted line), is passing through the pelvic inlet. The solid dark line indicates the mentoccipital diameter.
Question?

- What are the primary indications for use of the vacuum extractor?

Indications

1. Non-reassuring fetal heart rate, the most important indication, may include bradycardia, tachycardia, repetitive deep variables or late decelerations.
2. Maternal exhaustion is an indication when the mother is unable to complete second stage spontaneously because of inadequate expulsive efforts or ineffective bearing down.

Contraindications to Use of Vacuum Extractor

- Incompetent or inexperienced provider
- Severe caput
- Prematurity (less than 37 weeks)
- Malpresentation (breech, footling, face, brow, shoulder, transverse)
- Inability to achieve proper suction
- Uncertainty concerning fetal position
- Suspicion of CPD
- Known or suspected fetal coagulation defect
- Prior failed forceps
- OP position of fetus and no posterior cup available
### Requirements for Use of a Vacuum Extractor

- Vertex presentation
- Term fetus
- Cervix fully dilated
- Head at least 0 station or no more than 2/5 above symphysis pubis
- Ruptured membranes
- Adequate pelvis – no clinical evidence of CPD (no severe molding)

### What is a vacuum extractor?

### Mityvac Vacuum Pump

- No electricity required
- Trigger vacuum release for complete control throughout delivery by midwife or assistant
- Precision gauge color coded, calibrated in cm and inches of Hg
- Minigrip contoured handle
- May be autoclaved or gas sterilized
Care of Vacuum Extractor Pump, Cup and Tubing

- Pistol style pump is cleaned with a damp cloth (if pump is contaminated, wipe with 0.5% chlorine, then immediately with clear water).
- When fluid trap is used, it prevents fluid from being sucked into pump.
- If fluid is in pump, immerse in distilled water, pump until water expelled is clear, squeeze handles to air dry; do not leave fluid in the pump.
- Do not use soap or other cleaning solutions; they affect operation of pump.
- Cup and tubing should be soaked in 0.5% chlorine for 10 minutes, washed with soapy water and rinsed with clean water. Cup should be autoclaved. Tubing should be soaked for another 20 minutes in 0.5% chlorine, rinsed with clean water and air dried.

Clinical and Technical Principles

Location of the Flexion Point

Courtesy of: Aldo Vacca, M.D.
Placement of the Vacuum Cup

Correct Application of the Cup

Pulling Downward

Courtesy of: Aldo Vacca, M.D.
Do Not Continue to Pull If:

- The head does not advance with each pull
- The fetus is undelivered after three contractions without reducing pressure between contractions
- The fetus is undelivered after 20 minutes when pressure is reduced between contractions
- The cup comes off the head and scalp laceration or abrasion is seen.
- The cup comes off the head twice

Advantages of Vacuum Compared to Forceps – Baby and Delivery Factors

- Less force to fetal head
- Allows autorotation of fetal head
- Can be used to correct deflection and asynclitism
- Augments pushing and assists vaginal delivery
Shoulder Dystocia

Effectiveness

- Vacuum failure rates range from 2–27%.
- Metal cups have slightly higher success rates than plastic cups, but also higher rates of adverse outcomes.
- Greater failure rate of vacuum versus forceps when the position was posterior and silastic cup was used.
- Highest VE success rate with a non-metal cup was with the M-cup, which has a delivery rate as high as forceps.

Metal Cups

Advantages
- Posterior metal cups are effective for:
  - Posterior position
  - Large baby
  - Significant caput
  - Deflexed head
  - Can be autoclaved
  - Already available in many locations where newer cups cannot be purchased
  - Still used and available

Disadvantages
- More difficult to apply
- More uncomfortable
- Higher incidence of fetal scalp injuries
### Soft Cups

**Advantages**
- Easier assembly and application
- Faster from application to effective traction
- Less pronounced chignon
- Fewer superficial scalp injuries
- Less retinal hemorrhage

**Disadvantages**
- Higher rate of delivery failure

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### Complications – Maternal

- Perineal, vaginal and cervical lacerations are more likely with:
  - Nullipara
  - Use of forceps
  - Use of episiotomy
  - Posterior presentation
  - Prolonged delivery time
  - Increased birth weight
  - Midpelvic station
  - Greater than 45 degrees of rotation

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### Complications – Newborn Caput

- Results from pressure applied to fetal scalp from:
  - Dilating cervix
  - Pelvic soft tissues
  - Vacuum
- Caput occurs at vacuum cup application site; also called chignon
- Interstitial hemorrhages and fluid accumulate to form caput; longer 2nd stage and longer procedure leads to more accumulation
- Makes tissue more vulnerable to abrasion, laceration, hematoma
- Resolves spontaneously in a few days
Complications – Newborn Cephalhematoma

- Cephalhematoma:
  - Vessel ruptures between periosteum and outer edge of fetal skull
  - Hemorrhage is self-limited since periosteum is attached to edges of cranial plates
  - Most common over parietal bone; does not cross suture lines
  - Takes 4-6 weeks to resolve
  - Mean incidence 6% with VE deliveries

- May calcify and cause deformity (rare)
- Increase in bilirubin has been reported
- Not associated with long-term sequelae
- A vacuum chignon located over one of the parietal bones can be mistaken for cephalhematoma
- Over-diagnosed, as much as 4 fold
- Same incidence whether vacuum is intermittent or continuous
- Increased with higher station, increasing degree of asynclitism, greater time from application to delivery
- No increase with spontaneous rotation

Complications – Newborn Retinal Hemorrhage

- Retinal hemorrhage:
  - Retinal hemorrhage less when:
    - 2nd stage less than 1 hour
    - C/S
    - Breech birth
    - Forceps
  - May result from changes in intracranial venous pressure
  - Not increased with non-reassuring fetal heart rate
  - Rate with vacuum higher than normal birth
  - With vacuum, hemorrhage more common in right eye
  - Transient sign
  - No long term consequences
  - Pathophysiology unknown
Complications – Newborn Scalp Injuries

- Scalp injuries:
  - Bruising and swelling are common
  - Cup disengagement contributes to abrasions, bruising, bleeding, swelling
  - Incidence is greater if:
    - Vacuum procedure lasts longer than 10 minutes
    - 2nd stage is longer than 2 hours
    - Cup application is paramedian
  - With metal cup, twisting causes cookie-cutter or semi-circumferential laceration

Complications – Newborn Intracranial Hemorrhage

- Intracranial hemorrhage:
  - Occurs in 1 of 860 VE deliveries, 1 of 1,900 spontaneous deliveries
  - Higher when delivery is by vacuum, forceps or C/S as compared to normal vaginal delivery
  - If C/S is before labor starts, incidence is not increased, suggesting that cause is related to abnormal labor rather than mode of delivery
  - Rate markedly decreased with soft plastic cups

Complications – Newborn Subgaleal (Subaponeurotic) Hemorrhage

- Collection of blood under scalp
- Potential space can accommodate half or more of the blood volume of the neonate
- May cause coagulopathy, difficult to control
- Mortality almost 1 in 4
- Risk factors: use of vacuum, primipara, macrosomia, prolonged labor, CPD, prematurity, male gender, birth in Africa
- Occurs in approximately 1 in 1,000 VE deliveries
Subgaleal Hemorrhage (Cont...)

- More likely to occur when vacuum applied over anterior fontanelle
- Watch for early signs of shock such as pallor, hypotonia, tachycardia, tachypnea, increasing head circumference
- Late signs include anemia and boggy, ballotable cranium
- Do hourly head circumference for 8 hours
- Draw a baseline umbilical cord hematocrit

F F F F
Shoulder Dystocia

Problem

- The fetal head has been delivered but the shoulders are stuck and cannot be delivered

General Management

- Be prepared for shoulder dystocia at all deliveries, especially if a large baby is anticipated
- Have several persons available to help

Shoulder dystocia cannot be predicted.
Diagnosis

- The fetal head is delivered but remains tightly applied to vulva
- The chin retracts and depresses the perineum
- Traction on head fails to deliver the shoulder, which is caught behind symphysis pubis

Management

- Make an adequate episiotomy to reduce soft tissue obstruction and allow space for manipulation
- With the woman on her back, ask her to:
  - Flex both knees
  - Bring her knees as far up as possible towards her chest
- Ask two assistants to push her flexed knees firmly up onto her chest

Management (Cont...)

- Wearing high-level disinfected gloves:
  - Apply firm, continuous traction downwards on fetal head (AVOID excessive traction on head)
  - Have assistant simultaneously apply suprapubic pressure downwards to assist delivery of shoulder (DO NOT apply fundal pressure)
Management (Cont...)

- If shoulder is still not delivered:
  - Wearing high-level disinfected gloves, insert a hand into vagina
  - Apply pressure to shoulder that is anterior, in direction of baby’s sternum
  - Rotate shoulder to decrease shoulder diameter
  - If needed, apply pressure to shoulder that is posterior, in direction of baby’s sternum

Management (Cont...)

- If shoulder is still not delivered despite above measures:
  - Insert hand into vagina
  - Grasp humerus of arm that is posterior and, keeping arm flexed at elbow, sweep arm across baby’s chest

Management (Cont...)

- If all the above measures fail to deliver shoulder:
  - Fracture clavicle to decrease width of shoulders
  - Free anterior shoulder
  - Apply traction with hook in the axilla to extract posterior arm
Session Objectives

- By the end of the session, the learner will be able to:
  - Discuss key elements in recognizing the newborn with problems
  - Discuss the recognition and management of the newborn needing resuscitation
  - Discuss the recognition and management of the low birthweight and/or preterm newborn
  - Discuss the recognition and management of sepsis in the newborn

Management of Newborn Problems

- Education of families to recognize danger signs
- Working with families to develop/revise complication readiness plan
- Early recognition and appropriate management
  - Preparation at every birth
  - Immediate assessment and care
  - Resuscitation if needed
  - Special care for low birth weight (<2.5Kg), premature and sick newborns
Minimum Preparation for EVERY Birth

- These should be available and in working order:
  - Two blankets or towels plus small cloth to position head
  - Heat source
  - Mucus extractor
  - Self-inflating bag of newborn size
  - 2 masks (for normal and small newborns)
  - 1 clock (or watch)
  - At least one person skilled in newborn resuscitation present at birth

Signs of Good Health at Birth

Objective measures
- Breathing**
- Heart rate above 100 beats/minute

Subjective measures
- Vigorous cry
- Pink skin
- Good muscular tone
- Good reactions to stimulus

**Assessing breathing FIRST
Taking time to assess all of the above delays resuscitation if needed

Immediate Care of the Newborn

- Assess breathing
- Keep head in a neutral position
- IMMEDIATELY assess respirations and need for resuscitation
Incidence Birth Asphyxia (failure to initiate and sustain breathing at birth)

Factors Associated with Asphyxia

- Fetal distress
  - Meconium
  - Abnormal presentation
- Prolonged or obstructed labor
  - Prolonged rupture of membranes
- Complicated, traumatic or instrumental delivery
- Severe maternal infections
- Maternal sedation, analgesia or anesthesia
- Antenatal or intrapartal hemorrhage
- Preterm or post-term birth
- Congenital anomalies

Who will need resuscitation?

- About 3-10 percent of all newborns
- Sometimes the need for resuscitation can be predicted, but often it cannot, so...
- PREPARE FOR RESUSCITATION AT EVERY BIRTH
Equipment

What about….?

- Oxygen?
- Room air is sufficient in most cases
- Cardiac Massage?
- Dangerous when done incorrectly
- Slow heart rates in newborns almost always respond to breathing assistance only
- Drugs
- Very rarely needed if prompt and sufficient ventilation provided

Harmful and Ineffective Resuscitation Practices

- Practices to be avoided include:
  - Routine aspiration of the newborn’s mouth and nose as soon as the head is born
  - Routine aspiration of the newborn’s stomach at birth
  - Stimulation of the newborn by slapping or flicking the soles of her/his feet
  - Postural drainage and slapping the back
  - Routine giving of sodium bicarbonate to newborns who are not breathing
  - Intubation by an unskilled person

WHO 1998.
Documentation

- Details of the resuscitation to be recorded include:
  - Identification of newborn
  - Condition at birth
  - Procedures necessary to initiate breathing
  - Time from birth to initiation of spontaneous breathing
  - Clinical observations during and after resuscitation
  - Outcome of resuscitation
  - In case of failed resuscitation, possible reasons for failure
  - Names of healthcare providers involved

Post-Resuscitation Tasks: Successful Resuscitation

- Do not separate mother and newborn
- Leave newborn skin-to-skin with mother
- Measure temperature, count breaths, observe for in-drawing and grunting every 15 minutes for 2 hours
- Encourage breastfeeding within 1 hour after birth
- Encourage mother to remain for at least 24 hrs so baby can be observed and to ensure feeding well

Post-Resuscitation Tasks: Unsuccessful Resuscitation

- Inform patients fully
- Provide counseling, as needed
- If culturally appropriate, allow parents private time with dead newborn
- Burial should be arranged according to regulations and parents’ wishes
The Low Birth Weight Newborn

- Birth weight = Gestation duration + intrauterine growth
- Less than 2500g
  - Most low birth weight newborns in developing countries are term or near term (Small for gestation age)
  - Increased risk of hypothermia, hypoglycemia, and poor growth
  - Reported separately in Register

The Preterm Newborn

- Born before 37 weeks
- Associated problems with prematurity:
  - Feeding
  - Respiratory
  - Jaundice
  - Intracranial bleeding
  - Hypoglycemia
  - Temperature instability

Principles of Management for Low Birth Weight (LBW) and Preterm Newborns

For stable LBW and preterm newborns:
- Warmth
- Feeding
- Detection and management of complications
Feeding

- Early and exclusive breastfeeding
- Breastmilk = best nourishment
- Already warm temperature (if given directly from breast)
- Facilitated by kangaroo care

Warmth

- As for all newborns:
  - Lay newborn on mother’s abdomen or other warm surface
  - Dry newborn with clean (warm) cloth or towel
  - Remove wet towel and wrap/cover (including the head) with a second dry towel

Warmth: Problem with Incubators

- Potential source of infection
- Often temperature controls malfunction
- Often share incubator for more than one newborn
- Often not the best method for keeping baby warm
- Need alternative method: skin to skin care
**Definition of Kangaroo or Skin-to-skin care**

- Early, prolonged and continuous skin-to-skin contact between a mother and her low birthweight newborn
- This could begin in the facility or after early discharge and continue at home

**Benefits of Kangaroo Care**

- Is efficient way of keeping newborn warm
- Helps breathing of newborn to be more regular; reduce frequency of apneic spells
- Promotes breastfeeding, growth and extra-uterine adaptation
- Increases the mother’s confidence, ability and involvement in the care of her small newborn
- Seems to be acceptable in different cultures
- Contributes to containment of cost—salaries, running costs (electricity, etc.)

**Sepsis - General Principles**

- Sepsis can appear any time from birth to end of newborn period
- Sepsis is primary diagnosis for babies with multiple findings
- Sepsis is more likely if associated with history of rupture of membrane for 18 hours or longer
- Signs of sepsis and asphyxia can coexist

*References:
### Types of Newborn Infections

- **Localized**
  - Umbilical Cord Infection – no pus/discharge with enduration less than 1 cm; no signs of sepsis
  - Skin Infection – Fewer than 10 pustules or covering less than half the body
  - Eye Infection – No pus, more than 7 days old
- **General sepsis** – infections more serious than the above or with signs of sepsis

### General Sepsis

- Signs may be difficult to recognize because they are not specific, but may include:
  - Difficulty waking the baby
  - Not able to suck
  - Rapid or slow breathing or indrawing
  - Periods of apnea >20 seconds
  - Pale, gray or blue color
  - Rigid or limp limbs
  - Severe jaundice
  - Distended abdomen
  - Signs of severe eye, skin or cord infection

### Care for Newborn with Sepsis

- Give starting dose of antibiotics
  - For a baby 2 kg or more: ampicillin 50 mg/kg IM and gentamicin 5 mg/kg IM
  - For a baby < 2 kg: ampicillin 50 mg/kg IM and gentamicin 4 mg/kg IM
  - Refer, following referral guidelines*
  - Encourage breastfeeding, but use cup or spoon or syringe if unable to suck
  - Keep baby warm
  - * If referral is impossible, continue antibiotics for 10-14 days, giving ampicillin every 12 hrs if <7 days old and every 8 hrs if >7 days old and giving gentamicin once daily
Summary

- Skilled care at all births when possible
- Have equipment available and working
- Quick assessment (breathing, etc)
- Begin resuscitation immediately if needed
  - Ventilate
  - Reassess frequently
- Skin-to-skin care to keep baby warm—especially LBW babies
- Sepsis is the primary diagnosis for the newborn with multiple findings
Session Objectives

- To describe the principles of pain relief in essential obstetric care
- To describe different methods of pain relief in essential obstetric care

Basic Requirements of Pain Relief

- Supportive attention from staff before, during and after procedure to reduce anxiety
- Method of pain relief that is:
  - Appropriate for procedure
  - Adequate for pain relief
  - Safe for woman (and baby)
- Skill and expertise of provider in using instruments gently and minimizing tissue damage
Pain Relief in Labor

- Non-pharmacological methods of pain relief include:
  - Support from birth companion
  - Encouragement, compassion and support from provider
  - Ambulation and change of position
  - Back, shoulder and neck massage
  - Breathing techniques
  - Warm showers and baths

Pain Relief in Labor (Cont…)

- If non-pharmacological methods of pain relief are not adequate:
  - Give:
    - Pethidine 1 mg/kg body weight (maximum dose 100 mg) IM or IV slowly OR
    - Morphine 0.1 mg/kg body weight IM
  - Give drug every 4 hours as needed
  - Give promethazine 25 mg IM or IV if vomiting occurs
  - WARNING: The newborn may suffer from respiratory depression if the woman is given these drugs. They must not be given unless Naloxone is available for the newborn.

Local Anesthesia

- Blocks sensory nerves
- Commonly used preparation is Lignocaine 0.5%
- Premedication with pethidine and diazepam may be required for longer procedures
  - Because the woman will be awake during the procedure:
    - Counsel her before the procedure to increase cooperation and reduce fears
    - Tell her what you are doing at each step of the procedure
    - Wait until the anesthetic has taken full effect before performing procedure
Local Anesthesia (Cont...)

- Prevent complications of local anesthesia by:
  - Using dilute solutions (0.5% preferred)
  - Adding adrenaline when more than 40 mL will be used
  - Using lowest effective dose
- Not exceeding maximum dose:
  - Without adrenaline: 4 mg/kg body weight
  - With adrenaline: 7 mg/kg body weight
- Injecting slowly
- Avoiding IV injection

Nerve Blocks

- Target specific nerves to anesthetize a region of the body
- Paracervical block can be used for dilatation and curettage and manual vacuum aspiration
- Pudendal block can be used for instrumental delivery, breech delivery, episiotomy, and repair of perineal tears

Group Discussion

- Divide into 3 groups
- Discuss what you can do in your facilities to improve pain management:
  - For women in labour
  - For women during assisted deliveries
  - Post op (such as Caesarean Section) and/or after painful procedures including episiotomy