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POPPHI
Prevention of Postpartum
Hemorrhage Initiative

INTEGRATED MATERNAL AND NEWBORN CARE BASIC SKILLS COURSE 2009

FACILITATOR'S GUIDE

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This publication is one in a series that make up the USAID/BASICS Newborn Health tool kit. The tool kit comprises:

Facility Level Tools:

- Reference Manual
- Technical Presentations
- Facilitator's Guide
- Participant's Notebook
- Clinical Logbook with Learning and Evaluation Checklists

Community Level Tools:

- Guide for Training Community Health Workers/Volunteers to Provide Maternal and Newborn Health Messages
- Set of Counseling Cards



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Abbreviations

AMTSL	active management of the third stage of labor
ANC	antenatal care
BP	blood pressure
CCT	controlled cord traction
DIC	disseminated intravascular coagulopathy
ENC	essential newborn care
FH	fundal height
FIGO	International Federation of Gynecology and Obstetrics
HB	hemoglobin
HLD	high-level disinfection
ICM	International Confederation of Midwives
IM	intramuscular
IMCI	integrated management of childhood illnesses
IP	infection prevention
IPTP	intermittent preventive treatment in pregnancy
IPTI	intermittent preventive treatment in infants
ITN	insecticide-treated bednets
IU	international unit
IUGR	intrauterine growth retardation
IV	intravenous
KMC	kangaroo mother care
LBW	low birth weight
MOH	Ministry of Health
MTCT	mother-to-child transmission of HIV/AIDS
PMTCT	prevention of mother-to-child transmission of HIV/AIDS
POPHI	Prevention of Postpartum Hemorrhage Initiative
PPC	postpartum care
PPH	postpartum hemorrhage
PPPH	prevention of postpartum hemorrhage
PROM	premature rupture of membranes
RAM	rapid assessment and management
TSL	third stage of labor
TT	tetanus toxoid
USAID	United States Agency for International Development
VVM	vaccine vial monitor
WHO	World Health Organization



INTRODUCTION

About the Learning Materials

This learning package for integrated maternal and newborn care consists of a reference manual, a series of technical presentations, a participant's notebook, a facilitator's guide, and a clinical logbook with the learning checklists and the evaluation checklists. This learning package was developed for use by nurses, midwives, and doctors providing childbirth and immediate postpartum care for the woman and newborn in peripheral health care facilities.

These documents comprise a set and should be used together.

- The **Reference Manual** contains the theoretical content for the training course. It is intended to serve as the “textbook” or reference for participants and facilitators.
- The series of **Technical Presentations** contains PowerPoint slides of the different sessions. These will help in having more uniform training sessions and, along with the checklists, provide the key elements of each topic for easier learning.
- The **Facilitator's Guide** includes lesson plans, knowledge evaluation tests (pre-test, mid-course test, and post-test) and their suggested answers, answers for learning exercises, and guidelines for conducting a clinical training program.
- The **Participant's Notebook** assists participants throughout the training program. The notebook has the following components: overview of and agenda for the training program, learning objectives, learning exercises, and additional printed materials.
- The **Clinical Logbook** contains clinical experience logs, learning checklists, and checklists for evaluation of competencies. **Note:** The checklists for evaluation of competencies are also available as a separate document to be used as a part of programmatic activities after training during follow-up supervision.

Community Level Tools

- Guide for Training Community Health Workers/Volunteers to Provide Maternal and Newborn Health Messages.
- A set of counseling cards

These resources are distinguished within the series by an identifying icon located on the top of the odd-numbered pages:

Reference Manual



Technical Presentations



Facilitator's Guide



Participant's Notebook



Clinical Logbook



Guide for Training Community Health Workers/Volunteers to Provide Maternal and Newborn Health Messages





PART I: Elements of Adult Competency-Based Learning

GENERAL PRINCIPLES

Training Goal

The goal of this training program is to provide participants the opportunity to acquire new skills and improve their ability to provide maternal and newborn care from pregnancy up to the immediate postpartum period. This training will equip participants to provide quality, safe, respectful, and friendly care to women, newborns, and their families, thereby encouraging mothers and families to use the health care system with confidence and improving health outcomes for women and newborns.

Training Objectives

By the end of this clinical training course, the participant should be able to:

1. Describe the importance and key components of preventing infection.
2. Explain the importance of and provide integrated maternal and newborn care.
3. Perform active management of the third stage of labor (AMTSL).
4. Provide care for the newborn at birth.
5. Perform resuscitation with a bag and mask, at least on the training model.
6. Assist the mother to breastfeed her newborn.
7. Describe how to manage breastfeeding problems.
8. Provide maternal care during the immediate postpartum period (from delivery of the placenta until discharge from the health care facility).
9. Perform a systematic examination of the newborn baby.
10. Provide postnatal care for the newborn.
11. Describe how to identify and provide basic care for low birth weight babies, including the practice of kangaroo mother care.
12. Describe how to identify and provide basic treatment of major and minor infections in the newborn at peripheral health centers, including the procedure for referral to higher centers.
13. Use clinical decision-making skills.

Learning Approach*

In a traditional educational system, learning is measured by the amount of time spent on particular content, and instruction is teacher-centered. In competency-based training (CBT), learning is indicated by mastery of knowledge and skills, and instruction is learner- or participant-centered. Two key terms used in CBT are:

- **Skill:** A task or group of tasks performed to a specific level of competency or proficiency, often involving the use of motor functions and typically requiring the manipulation of instruments and equipment (e.g., IUD insertion or Norplant® implants removal). Some skills, however, such as counseling, are knowledge- and attitude-based.
- **Competency:** A skill performed to a specific standard under specific conditions.

A competent clinician (e.g., physician, nurse, midwife, medical assistant) is one who is able to perform a clinical skill to a satisfactory standard. Competency-based training for reproductive health professionals, then, is training based upon the participant's ability to demonstrate attainment or mastery of clinical skills performed under certain conditions to specific standards (and the skills then become competencies). The five essential elements of CBT are:

* Copied from: Sullivan, R. JHPIEGO Strategy Paper 1995. Reproline Reading Room. Available at: <http://www.reproline.jhu.edu/english/6read/6training/cbt/cbt.htm#CBT> (Accessed October 10, 2008).



- The competencies to be achieved are carefully identified, verified, and made public in advance.
- The criteria to be used to assess achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance.
- The instructional program provides for the individual development and evaluation of each of the specified competencies.
- The assessment of competency takes the participant's knowledge and attitudes into account but requires actual performance of the competency as the primary source of evidence.
- Participants progress through the instructional program at their own pace by demonstrating the attainment of the specified competencies.

The Mastery Learning Approach[†]

The mastery learning approach, based on principles of adult learning, means that learning is participatory, relevant, and practical. This approach builds on what the participant already knows or has experienced and provides opportunities for practicing skills. Key features of mastery learning (defined below) are that it:

- uses behavior modeling,
- is competency-based, and
- incorporates humanistic learning techniques.

Behavior modeling: Social learning theory states that when conditions are ideal, a person learns most rapidly and effectively from watching someone perform (model) a skill or activity. For modeling to be successful, however, the teacher must clearly demonstrate the skill or activity so that participants have a clear picture of the performance expected of them.

Competency-based training means learning by doing. It focuses on the specific knowledge, attitudes, and skills needed to carry out the procedure or activity. How the participant performs (i.e., a combination of knowledge, attitudes and, most important, skills) is emphasized rather than just the information learned. Competency in the new skill or activity is assessed objectively by evaluating overall performance.

Humanistic learning techniques: The use of more humane (humanistic) techniques also contributes to better clinical learning. A major component of humanistic training is the use of anatomic models, which closely resemble the human body, and other learning aids. Working first with models rather than with patients allows participants to learn and practice new skills in a simulated setting, thereby reducing stress for the participant as well as the risk of injury and discomfort to the patient. Effective use of models (the humanistic approach) is an important factor in improving the quality of clinical training and, ultimately, service provision.

Before a participant performs a clinical procedure with a patient, two learning activities should occur:

- The clinical teacher should demonstrate the required skills and patient interactions several times, using an anatomic model, role plays, or simulations.

[†] Adapted from: MNH. *Managing complications in Pregnancy and Childbirth. Learning Resource Package: Guide for Teachers*. Available at: http://www.reproline.jhu.edu/english/2mnh/2mcpc/learningpkg_toc.htm (Accessed October 10, 2008).

- Under the guidance of the teacher, the participant should practice the required skills and patient interactions, using the model, role plays or simulations, and actual instruments in a setting that is as close as possible to the real situation.

Only when skill competency has been demonstrated on models should participants have their first contact with a patient.

When mastery learning, based on adult learning principles and behavior modeling, is integrated with CBT, the result is a powerful and extremely effective method for providing clinical training. And when humanistic training techniques, such as using anatomic models and other learning aids, are incorporated, training time and costs can be significantly reduced.

The learning approach used during this clinical skills course is based on the participants' learning needs. As such, the content of didactic sessions and the clinical practicum are designed to encourage learning, and each participant needs to take an active role in all aspects of learning.

Given the facilitator's training and previous experience, she/he will work with the participants as a subject matter expert and will help them acquire new knowledge, skills, and attitudes. In addition, the facilitator needs to create a positive learning environment that puts participants at ease and encourage activities that facilitate learning.

The clinical skills course has two phases:

- A **theoretical phase** which takes place in the classroom. The following techniques will be used: illustrated lecture, brainstorming, case studies, role plays, group work, demonstration, and practice on anatomic models.
- A **practical phase** which takes place at the clinical sites.

Team Approach

Participants will be paired with a learning partner throughout the training course. The two learning partners work as a team to study, discuss, work on learning activities, prepare for knowledge tests, work on demonstrations, and practice clinical skills in the clinical area. Learning partners should support, encourage, motivate, and help each other.

Facilitators should pair each participant with a learning partner and explain the use of the team approach. The make-up of each learning pair will differ from one group to another. However, the facilitator should carefully consider the following characteristics of each participant when creating a learning team:

- previous experience with competencies being taught during this training course,
- professional cadre (obstetrical nurse, nurse, midwife, general practitioner, pediatrician, obstetrician),
- previous experience attending births (Please note that any participants who do not have previous experience attending birth should not attempt to conduct a delivery or AMTSL or resuscitation during this training course, although they may observe the steps performed by the clinicians on the woman and the baby.),
- place of work. and
- language issues, if any.

While doing demonstrations and practicing in the clinical area, each member of the learning pair will take turns being the person that either "performs" a skill or "observes" a skill. This approach will help the participant learn more from all clinical experiences, those that he/she does and those that he/she watches. When working as a team, the observer will remind her learning



partner when she forgets something or does not remember how to do it correctly. The responsibilities of the two team members are described below.

When the participant **performs** the skill, he/she:

1. Reviews the appropriate learning checklists before performing the skill.
2. Performs the skill.
3. Evaluates her/himself using the learning checklists before being evaluated by the facilitator.
4. Meets with the facilitator to hear and discuss the facilitator's evaluation of the performance.

When the participant observes the skill, he/she:

1. Reviews the appropriate learning checklist before assisting with the skill.
2. Observes the person performing the skill and reminds her/him of any forgotten steps.
3. Evaluates the person performing the skill using the checklist.
4. Meets with the "performer" to discuss the evaluation of the skill he/she has observed.

Participants will first be put into teams (learning pairs) and then a facilitator will be assigned to each team. The facilitator will take primary responsibility for all participants assigned to him/her throughout the training program. A copy of the following table should be recreated on a flipchart and posted where participants and facilitators can refer to it.

Team	Participants	Facilitator
1		
2		
3		
4		

Selection Criteria for Facilitators[‡]

In selecting potential facilitators for this integrated maternal and newborn clinical skills course, the following criteria should be considered:

- **Demonstrated proficiency:** the individual must first be an expert service provider in either the maternal or newborn clinical skills to be taught.
- **Interest in training:** a health professional who is genuinely interested in training will be more likely to have the time necessary to learn and practice clinical training skills.
- **Humility:** a good training facilitator is able to admit when she or he makes a mistake and does not try to prove that participants will never attain his/her skill level.

[‡] Sullivan, R., Blouse, A., McIntosh, N., Schaefer, L., Lowry, E., Bergthold, G., Magarick, R. *Clinical training skills for reproductive health professional* (2nd Edition). Baltimore: JHPIEGO, 1999.

Selection Criteria for Participants

The following criteria should be considered when selecting participants for this clinical skills course:

- Participants must be health care professionals (doctors, midwives, nurses) who are currently providing maternal and newborn care.
- Participants must have an interest in providing quality services.
- The participant's institution should be capable of offering the services being taught in this course.
- Participants must have the support of their supervisors or managers.
- Participants must be motivated and ready to change their clinical practices where necessary to meet the standards and attitudes of quality client care.

If possible and appropriate, two individuals from each site should attend the same clinical skills course.

Supervisors who are not actively providing services may participate in the clinical skills course, but wherever there are time constraints or a shortage of cases, priority for clinical experiences should be given to participants who are currently providing services.

Classroom Requirements

In choosing a classroom, the facilitators should make sure that:

- This course is the only event scheduled in the room for the entire time period.
- The room is properly heated or cooled and ventilated.
- The classroom has:
 - adequate electric power
 - toilet facilities which are adequately maintained
 - furniture such as tables, chairs, and desks
- The classroom is large enough to accommodate:
 - the number of participants
 - space for audio-visual equipment
 - space for participants to work in small groups
 - space to set up clinical simulations
 - a table in front of the room where the facilitators can place their course materials
- The tables are arranged in a U-shape or other formation that will allow as many of the participants as possible to see one another and the facilitator.

Clinical Site Requirements

Ideally, **a ratio of one facilitator for every four participants** is recommended for a clinical skills course. This ratio will ensure that each participant's progress is followed closely and will improve his/her learning experience. Having at least one facilitator for every four participants also ensures client safety in the clinical area.

When selecting a site and planning for the clinical practicum, facilitators should keep in mind that the recommendations are to assign **four participants per delivery bed** at the site. That is, if the clinical site has two delivery beds, a maximum of eight participants should be assigned to that clinical site at any one time. Two learning teams will be present at each birth: one team to care for the woman, apply AMTSL, and provide essential newborn care (ENC); and one team that is present at the birth to resuscitate the baby if necessary. If the baby does not require



resuscitation, the resuscitation team leaves the delivery room after the baby is born and immediate care has been provided. When one learning team is providing care for a woman in labor, the other teams should be assigned to care for women and newborns in the recovery room or the postpartum ward.

When selecting a clinical site, the facilitator should make sure that:

- The site has an adequate client caseload/number of births.
- The site has sufficient space to accommodate the participants and facilitators without sacrificing the quality of services.
- The site has enough instruments and supplies to provide the services being taught in the clinical skills course.
- Staff at the site have appropriate service provision practices.
- The site is similar to where the participants work.
- Staff at the site are receptive to having participants.
- Staff at the site are open to new clinical practices.
- The clinical site is near the classroom.

Selecting a good clinical site will make the difference between a satisfying and frustrating clinical practicum.

Knowledge Assessment of the Participants

- A pre-course questionnaire is administered at the beginning of the clinical skills course.
- A mid-course questionnaire is given to evaluate acquisition of new knowledge at the mid-point.
- A post-course questionnaire is administered at the end of the clinical skills course and serves as the final knowledge assessment.
- A learning matrix with the list of required skills demonstrated on anatomic models, observed and actually performed (see p 26) is useful to assess individual and group learning needs and serves as a reference for choosing subjects that require additional attention.

Skills Assessment of the Participants

The evaluation of clinical skills is first done on an anatomic model, where participants must demonstrate competency before proceeding to the clinical practicum to work with actual patients.

A wall chart listing the names of participants and the clinical skills being taught should be posted in an area where participants and facilitators can easily refer to it. The cell corresponding to the skill will be checked off when the participant has demonstrated, observed, or practiced the skill in the clinical area.

The following clinical skills will be evaluated during the course:

- AMTSL and essential newborn care (ENC),
- care for the newborn at birth,
- monitoring the woman and the newborn in the first 6 hours postpartum,
- resuscitation for birth asphyxia,
- facilitating initiation of breastfeeding (early initiation of breastfeeding and correct positioning when breastfeeding),
- essential postnatal care of the mother, and

- examination of a normal newborn and postnatal care of the baby.

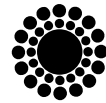
The number of procedures participants will need to observe, assist with, and perform using models will vary depending on their background and the number of cases available.

Evaluating the Clinical Skills Course

An evaluation of the course will be done by the participants at the end of each day, and they will also write a daily report. An evaluation form (see Participant's Notebook) will be completed by all the participants at the end of the clinical skills course.

Model Course

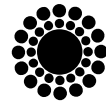
The schedule for a model course is shown on the next page.



Model Course Schedule

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Morning (4.5 Hours): 8:30-13:00					
Agenda and opening activity					
<p>Opening ceremony</p> <p>Introduction</p> <ul style="list-style-type: none"> Welcome Participant introductions Participant expectations Logistics Workshop norms Election of a person to represent the participants <p>Overview</p> <ul style="list-style-type: none"> Goals, objectives, schedule Approach to training Review of course materials <p>Pre-course questionnaire: 30 min</p> <p>Session 1: Preventing Infection: 1hr 15min</p> <p>Session 2: Clinical Decision-Making: 45min</p>	<p>Session 5: Routine Care during the Third Stage of Labor:</p> <ul style="list-style-type: none"> Preparations for child-birth: 45min AMTSL: 2hrs 15min <p>(Demonstration and simulated practice: AMTSL)</p> <ul style="list-style-type: none"> ENC integrated into AMTSL: 1hr <p>(Demonstration and simulated practice: ENC and AMTSL integrated)</p>	<p>Session 8: Resuscitation for Birth Asphyxia: 6hrs.</p> <p>(Demonstration and simulated practice in small groups on the mannequin: Resuscitation for birth asphyxia)</p>	<p>Session 9: Basic Systematic Examination of the Newborn At Peripheral Centers: 3hrs</p> <p>(Demonstration and simulated practice in small groups on the mannequin: Newborn exam)</p> <p>Session 10: Postnatal Care of the Newborn: 1hr</p>	<p>Sessions 12: Care of the Low Birth Weight Baby: 2hrs</p> <p>Session 13: Treatment of Infections in the Newborn (including referral): 2hrs</p>	<p>Validation of skills on anatomic models</p> <p>Briefing on the clinical practicum/Guide-lines for clinical experiences</p> <p>Mid-course questionnaire</p>
Lunch					

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Evening (3 Hours): 14:00-17:00					
Session 3: Maternal Care To Improve Maternal and Newborn Survival (with interactive game: Care During Pregnancy): 2hrs Session 4: Preventing PPH: 45 min	Session 6: Monitoring the Woman and Newborn during the First 6 Hours Postpartum: 1hr Session 7: Routine Postpartum Care for the Woman – 1hr 30min	Session 8: Resuscitation for Birth Asphyxia (continued) Test for competence: Resuscitation for birth asphyxia for those who are ready	Session 10: Postnatal Care of the Newborn (continued): 1hr 30 min Session 11: Diagnosing and Treating Breastfeeding Problems: 1hr	Sessions 13: Treatment of Infections in the Newborn (continued): 2hrs 30min	
Review of the day's activities / Evaluation					
Homework <ul style="list-style-type: none"> Review sessions in the Reference Manual Complete and correct learning activities for sessions 1-4 	Homework <ul style="list-style-type: none"> Practice/Get checked off on skills on anatomic models Review sessions in the Reference Manual Complete and correct learning activities for sessions 5-7 	Homework <ul style="list-style-type: none"> Practice/Get checked off on skills on anatomic models Review sessions in the Reference Manual Complete and correct learning activities for session 8 	Homework <ul style="list-style-type: none"> Practice/Get checked off on skills on anatomic models Review sessions in the Reference Manual Complete and correct learning activities for sessions 9-11 	Homework <ul style="list-style-type: none"> Practice/Get checked off on skills on anatomic models Review sessions in the Reference Manual Complete and correct learning activities for sessions 12 and 13 Prepare for the mid-course questionnaire 	Homework <ul style="list-style-type: none"> Get checked off on skills on anatomic models Prepare for clinical practicum by reviewing checklists and job aids



Skills to be evaluated	Day 7	Day 8	Day 9	Day 10	Day 11	
<ul style="list-style-type: none"> • AMTSL + essential newborn care (ENC) • Care for the newborn at birth • Facilitating initiation of breastfeeding (early initiation of breastfeeding and correct positioning when breastfeeding) • Monitoring the woman and newborn during the first 6 hours postpartum • Care for the newborn at discharge • Essential postpartum care for the woman • Examination and postnatal care of the newborn • Newborn resuscitation in the delivery/birth room <p>Group discussions:</p> <ul style="list-style-type: none"> • Organizational changes needed to promote postpartum care for the woman and newborn 	Morning (4.5 Hours): 8:30-13:00					
	<ul style="list-style-type: none"> • Agenda and pre-clinical meeting • Supervised clinical practice • Complete tests for competence on models for participants not evaluated earlier • For resuscitation for birth asphyxia, as there may not be adequate numbers of cases, participants will have to practice repeatedly on the model and be re-evaluated on the same during the period of clinical practicum 				Agenda and opening activity Session: Presentation of action plans to the group – 3h	
	Lunch					
	Evening (3 Hours): 14:00-17:00					
	Supervised clinical practice Pre-clinical meeting and review of the day's activities				<ul style="list-style-type: none"> • Retake of post-test • Formal evaluation of the clinical skills course • Recommendations • Next steps • Closing ceremony 	
Develop action plans			Finalize action plans Post-Test			

Responsibilities of a Facilitator⁴

Before the Course

Administrative tasks

- Arrange for the classroom and clinical site and inform all appropriate personnel about the upcoming clinical skills course.
- Confirm financial support (transport, per diem).
- Arrange transport and accommodation.
- Provide pertinent information to participants in advance.
- Verify that learning materials are prepared and will be available.
- Arrange meals and snacks.
- Prepare the classroom (cleaning, enough desks/chairs, whiteboard/pens, LCD projectors available).

General preparation

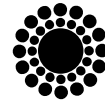
- Review the course syllabus.
- Review the course schedule.
- Study the course outline.
- Read and study the Reference Manual, PowerPoint Presentations, Facilitator's Guide, Participant's Notebook, and Clinical Logbook.
- Review the knowledge assessment tools: pre-, mid-, and post-course questionnaires.
- Make copies of all learning materials needed: Reference Manual, Technical Presentations (PowerPoint slides), Participant's Notebook, Facilitator's Guide, Clinical Logbook, knowledge evaluation questionnaires. It is good to make copies of the technical presentations in case the electricity goes out and the LCD projector cannot be used.
- Check all audiovisual equipment and arrange for microphones where possible.
- Practice clinical skills with the models. Ensure that there is agreement on all issues among the facilitators and that they all carry out the steps in a similar manner.
- Obtain information about the participants who will be attending, such as why they enrolled, their experience and clinical background, and what types of clinical activities they will perform in their daily work after the training.

Preparation of needed equipment and materials

To conduct a successful clinical skills course for maternal and newborn essential care, all of the following equipment, supplies, and materials will need to be available and in good working order:

- An obstetric model for AMTSL demonstration, plus five pieces of cloth, each about one meter square.
- A mannequin for training and practicing resuscitation that can demonstrate elevating the chest with ventilation with a bag and mask.
- A doll for demonstrating routine baby care and for role plays (keep the mannequin only for resuscitation).

⁴Sullivan, R., Blouse, A., McIntosh, N., Schaefer, L., Lowry, E., Bergthold, G., Magarick, R. *Clinical training skills for reproductive health professional* (2nd Edition). Baltimore: JHPIEGO, 1999.



- Materials for infection prevention practices:
 - chlorine,
 - buckets,
 - liquid soap,
 - towels,
 - detergent,
 - cleaning brushes, and
 - utility gloves.

- Materials for providing care at birth:
 - 2 scissors,
 - 2 Kocher clamps,
 - a stethoscope,
 - a fetal stethoscope,
 - a sphygmomanometer,
 - oxytocin ampoules, and
 - syringes and needles.

- Equipment for care of the baby, including resuscitation:
 - a heat and light source
 - a table for resuscitation with a mattress with a clean washable surface covered with a clean cloth. This could be part of the warming table.
 - 3-5 pieces of clean cloth to dry and wrap the baby, including the head
 - a cap/bonnet (where available) and a blanket where required
 - gauzes/compresses/pieces of cloth
 - disposable sterile (preferable)/high-level disinfected gloves
 - suction equipment with suction tubes/catheters
 - a self-inflating bag (240-500 mL, 500 mL preferable) and masks (sizes 1 and 0)
 - a stethoscope
 - a sterile blade with scalpel
 - an oxygen source (if available)
 - a wall clock with a second hand
 - a wall thermometer
 - baby scales
 - a clinical thermometer to record the axillary temperature of the baby
 - disposable syringes (1ml, 2ml, 10ml)
 - ampoules of vitamin K1
 - eye drops or ointment
 - registers and maternal newborn cards for documentation
 - learning and evaluation checklists
 - algorithms

- Training materials:
 - a flipstand and flipchart,
 - LCD projector,
 - computer,
 - power point and hard copies of presentations (both for retention by participants and also for use during training in case of electrical failures),

- arrangements for microphones (if feasible),
- markers,
- binders,
- notebooks, and
- pens.

Finalizing the schedule

Facilitators will need to agree upon and finalize the schedule before the clinical skills course begins. During this time the facilitators will:

- Review and revise the schedule and agree upon a time for a facilitators' meeting at the end of each day to review activities and make necessary adjustments for the following day.
- Coordinate facilitation of teaching sessions, demonstrations, return demonstrations, and clinical practice. Each facilitator needs to carefully review his/her sessions and lesson plans.
- Select a moderator and coordinate moderation for each day of the clinical skills course. The moderator for the day will also be responsible for writing a daily report and moderating the facilitators' meeting at the end of the day.
- Coordinate division of the facilitators' tasks. A co-facilitator is designated for each session to assist the principal facilitator.
- Check materials and equipment needed for the sessions and distribute them to appropriate facilitators.
- Prepare all learning materials and documents.
- Standardize each other's skills either on an anatomic model or in the clinical area.

During the Course

Daily tasks

Each day the facilitators will need to:

- Provide information to participants about the sessions that will be presented the next day and ask them to prepare by reading the Reference Manual, completing the learning activities, and reviewing the checklists.
- Review:
 - key points to cover in the session,
 - the learning approach to use,
 - the prepared presentation, ensuring that it is interactive,
 - relevant learning/practice and evaluation checklists,
 - job aids, materials, or equipment necessary for any demonstrations that will be performed, and
 - all of the steps for the demonstration, ensuring that all of the facilitators responsible for facilitating the demonstration perform the skill in a standardized way. As noted above, each facilitator who is responsible for a demonstration should have demonstrated the skill being taught to other facilitators to ensure that all of the facilitators are teaching the skill in the standardized way.
- Leave all of the materials needed for the demonstration in the classroom, making sure they are ready to be used and will be safe where they are left.
- Encourage participants to complete and correct the learning activities found in the Participant's Notebook.



- Validate participants' skills on an anatomic model when they indicate they are ready to be evaluated.

Tasks before presenting a session

Before facilitating a session, the facilitator should:

- Carefully read the content for the session in the Reference Manual, Technical Presentations, Facilitator's Guide, Clinical Logbook, and Participant's Notebook.
- Prepare all needed materials for the learning activities that will take place during the session (case studies, demonstrations, etc.).
- Review the PowerPoint Presentation and written suggestions for the presentation (notes to the facilitator) where present.

Tasks while presenting a session

When facilitating a session, the facilitator needs to:

- Present the goals and objectives.
- Make sure that the PowerPoint presentation is interactive to ensure that participants can participate actively in the session, rather than just listen to a lecture (see the checklist below).
- Ask (at the end of each session) if there are points that need clarification, provide an explanation as necessary, and ask for comments.

Checklist for Classroom Presentation Skills

Step/Task⁵
1. Presents an effective introduction.
2. States the objective(s) as part of the introduction.
3. Asks questions of the entire group.
4. Targets questions to individuals.
5. Asks questions at a variety of levels.
6. Uses participants' names.
7. Provides positive feedback.
8. Responds to participant questions.
9. Follows facilitator's notes and/or a personalized reference manual.
10. Maintains eye contact.
11. Projects voice so that all participants can hear.
12. Moves about the room.
13. Uses audiovisuals effectively.
14. Displays a positive use of humor.
15. Presents an effective summary.
16. Provides for application or practice of presentation content.

⁵ Checklists from www.reproline.jhu.edu, the website of the JHPIEGO Corporation.

Demonstrating Clinical Skills On Anatomic Models

Behavior modeling/observational learning takes place in three stages. In the first stage, **skill acquisition**, the participant sees the facilitator and then other participants perform the procedure and acquires a mental picture of the required steps. Once the mental image is acquired, the participant attempts to perform the procedure, usually with supervision.

Next, the participant practices until **skill competency** is achieved, and she/he feels confident performing the procedure. In the final stage, **skill proficiency** occurs with repeated practice over time.

<i>Skill Acquisition</i>	Knows the steps and their sequence (if necessary) to perform the required skill or activity but needs assistance .
<i>Skill Competency</i>	Knows the steps and their sequence (if necessary) and can perform the required skill.
<i>Skill Proficiency</i>	Knows the steps and their sequence (if necessary) and effectively performs the required skill or activity.

When demonstrating a clinical skill, the facilitator should:

- Include all steps of the procedure in the proper sequence according to the approved performance standards. Additionally, the facilitator should give participants an idea of the time needed to complete the task.
- Explain to the participants what is being done—especially any difficult or hard-to-see steps.
- Stimulate the participants' interest in the subject matter.

When preparing for a demonstration of a clinical procedure using anatomic models, the facilitator will need to:

- Gather all of the needed equipment and materials.
- Make sure that materials for the demonstration are placed in such a way that all of the participants can easily see all steps of the demonstration and hear the facilitator and that participants can also hear any questions asked by the other participants.
- Make sure that the demonstration is set up in a way that the facilitator can give the demonstration with ease.
- Review the essential steps of the demonstration on a flipchart or other medium before beginning the demonstration.

The following are tips for ensuring a successful demonstration:

- Keep the demonstration short and simple.
- Explain one procedure at a time.
- Encourage active participation during the demonstration.
- Ask questions of participants, such as “What should I do next?” or “Why should I do this step in this way rather than in another way?”
- Ask participants to discuss how to proceed and how they can apply the new skill at their place of work.



- Help participants establish a link between this demonstration and any knowledge they already possess.

When planning and giving a demonstration of a clinical procedure using anatomic models, the facilitator should observe the following guidelines:

- Use the Facilitator's Guide.
- State the objective(s) as part of the introduction.
- Present an effective introduction.
- Arrange the demonstration area so that participants are able to see each step in the procedure clearly.
- In the initial demonstration, ask the co-facilitator or a participant to read aloud each step from the learning checklist before performing it.
- Never demonstrate an incorrect procedure or shortcut.
- Communicate with the model or client during demonstration of the skill/activity.
- Ask questions and encourage participants to ask questions.
- Demonstrate or simulate appropriate infection prevention practices.
- Position the anatomic model as an actual client.
- Maintain eye contact with participants as much as possible.
- Project his/her voice so that all participants can hear.
- Provide participants with opportunities to practice the skill/activity under direct supervision.

Using Competency-Based Tools

Competency-based skill assessments (learning guides/checklists and evaluation checklists) measure clinical skills or other observable behaviors relative to a predetermined standard. Using these two tools makes evaluating a participant's competency much easier. Learning guides/checklists are used to facilitate learning the steps or tasks in performing a particular skill or activity, and evaluation checklists are used to evaluate performance of the skill or activity objectively.

A learning guide contains the individual steps or tasks in the sequence required to perform a skill or activity in a standardized way. Checklists are derived from a learning guide. Unlike learning guides, which are by necessity quite detailed, checklists focus only on the key steps or tasks. Checklists should contain only sufficient detail to permit the facilitator to evaluate and record the overall performance of the participant objectively.

Using competency-based tools in clinical training:

- Ensures that training is based on standardized procedures.
- Standardizes training materials and audiovisual aids.
- Forms the basis of classroom or clinical demonstrations as well as participant practice sessions.

Training facilitators to correctly use these competency-based tools correctly will ensure that the evaluation of a participant's skill is based on his/her actual performance as well as the application of newly acquired knowledge in a clinical setting, rather than simply on the number of hours spent in clinical practice or on the number of times a particular skill was practiced.

Using Learning Checklists

While learning a skill, the participant will use a learning checklist that contains the individual steps or tasks in the sequence required to perform a skill or activity in a standardized way.

These checklists are designed to help the participant learn the correct steps and sequence in which they should be performed, and to measure progressive learning in small steps as the participant gains confidence and skill.

Because the learning checklists are used to assist in developing skills, it is important that the rating (scoring) be done carefully and as objectively as possible. The participant's performance of each step is rated on the following scale:

- 1 = **Satisfactory:** Performs the step or task completely and correctly.
- 0 = **Unsatisfactory:** Is unable to perform the step or task completely or correctly.
- 0 = **Not observed:** The step, task, or skill was not performed by the participant during evaluation by a facilitator.

N/A (Not applicable) = The step is not needed.

The number of procedures a participant needs to observe, assist with, and perform using models will vary depending on their background. It is only when the participant can apply the skill with some confidence on the anatomic model that she/he will have his/her first experience with clients.

A participant will be judged competent when she/he achieves at least an 80% when evaluated on an anatomic model or in the clinical area. When determining competence, the judgment of a skilled facilitator is the most important factor. Thus, in the final analysis, competence carries more weight than the number of presentations (which may be only two or less depending on the number of participants attending this course). Because the goal of this training is to enable every participant to achieve competency, additional training or practice in these skills may be necessary.

Evaluation of counseling skills should occur each time the participant is observed interacting with a client. Counseling skills may also be evaluated using role plays with volunteers.

When a participant is seeing his/her first clients at the clinical site, it is not mandatory that the facilitator observe the participant from the beginning to the end of the procedure. What is important is that each participant demonstrate the steps and tasks at least once before the final evaluation in order to receive feedback and clinical coaching. (If one step or task was not performed correctly, the participant must repeat all steps for the skill, not simply the steps that were missed.) It is, in fact, recommended that the facilitator **not** interrupt the participant when a step is performed incorrectly, except if the safety of the client is in jeopardy. In other cases, the facilitator should let the participant complete the entire skill before providing feedback and coaching on his/her overall performance.

To determine if a participant has qualified or not, the facilitator will observe the participant and give a score for each step/task.

Finally, it is incumbent upon the facilitator to observe each participant's overall performance when applying a skill. For some skills, such as resuscitation for birth asphyxia, it is necessary not only to perform the steps in a correct manner and sequence but also in a timely manner, remembering the urgency of the situation as in resuscitation for birth asphyxia. It is only in this



way that the facilitator can evaluate how the participant applies newly acquired skills, knowledge, and attitudes. This type of observation gives the facilitator the opportunity to judge the impact of the participant's attitude on clients, an extremely important part of providing quality services.

Using Evaluation Checklists for Follow-up Supervision

Evaluation checklists can also be used later during follow-up supervisory activities. Follow-up is important because training is only one component of improving maternal and newborn health. Maintaining and monitoring quality are two other essential components in implementing any program.

Ideally all supervisors should be fully familiar with the skills to be assessed. However, in many countries, much of the work of supervisors takes place in an office, such as at the Ministry of Health, and they may or may not be fully aware of all the necessary steps. In such cases, either the evaluation checklists may be made longer, similar to the learning checklists with the necessary details, or supervisors can be given the learning checklists to refer to during an evaluation.

Skill Assessments

Assessment of clinical skills in a simulated setting (i.e., on anatomic models)

Before beginning the clinical practicum, the participant must be found competent in the various skills on anatomic models. Demonstrations on the anatomic models will be done after the participant has completed the learning exercises and the class content for the skill being evaluated and before going to the clinical site. The facilitator will observe the participant demonstrating the skill on an anatomic model and will evaluate his/her competency using the checklist. This evaluation is done to ensure that the participant is competent in a simulated setting before beginning the clinical practicum with clients. The same checklist will be used when assessing competence in the clinical area with clients.

Facilitators must ensure that a participant has been found competent in a skill on an anatomic model before attempting to practice a newly acquired skill on a woman or newborn.

Assessment of clinical skills at the training site

After demonstrating their skills in a simulated situation (i.e., on models), participants will spend time in the clinical area to observe and—when possible—apply the newly gained knowledge and skills in a clinical setting. Ward staff and clinical preceptors are vital to a quality, positive learning environment. Clinical preceptors will supervise the training, but ward staff will be guiding, coaching, and mentoring participants throughout the training. Ward staff must practice the skills according to standards agreed upon in the training program to ensure consistency and improve the chances that the participant will be competent in the newly acquired skills.

When the facilitator determines a participant can competently perform the newly acquired skills in the clinical site, he/she records the date on the wall chart and records the date and the participant's score in the clinical log section of the learning checklists.

Note:

For some components, such as resuscitation for birth asphyxia, it may not be possible to have an adequate number of cases to permit all participants to practice on cases. Hence, while trying at least to observe steps on babies where possible, participants must practice repeatedly on the mannequin. It is also likely that most participants will be evaluated only on a mannequin; thus, having an adequate number of mannequins available for practice and for evaluation during training and later for maintaining skills and evaluation during supervisory visits is very important.

MANAGING CLINICAL PRACTICE⁶

Facilitators must always be with participants when they are working with clients so that they can provide guidance and support, both individually and for the group, and continually evaluate their acquisition of new knowledge and skills. Clinical sites must be supervised by teams of two facilitators, preferably one midwife and one physician.

Facilitators can use the following methods to guide, support, and evaluate each participant during their clinical experience:

- individual discussions
- observations during clinical practice
- discussions during post-clinical meetings

In addition to clinical experiences, the participants should work on the site evaluation form.

Responsibilities of Participants and Facilitators during Clinical Practice

When using the competency-based approach, the responsibility to meet learning objectives is shared by the facilitator and the participant. The facilitator's/mentor's goal is to assist each participant to achieve mastery of competencies and not simply to get a good grade on a knowledge test. If a participant doesn't achieve mastery, the facilitator must not simply attribute this failure to the participant's incompetence but should find ways and meaningful learning approaches to assist the participant in mastering the skill.

The role of the facilitator is to facilitate learning. A facilitator guides the participants in the discovery of new knowledge and towards the acquisition of new skills or improving existing skills. A facilitator seeks to influence the participant's attitude by modeling approved, agreed-upon standards of performance and behavior. For example, the facilitator must always demonstrate the entire skill exactly as it should be practiced; demonstrating the "wrong" way to practice a skill is never acceptable.

Participants should be encouraged to be actively engaged in their own learning, and facilitators must encourage them to share what they already know about the subjects being taught. The knowledge and experience that the participants bring to any clinical skills course is as important for the learning process as any knowledge or experience the facilitator may have. The success of this program and learning approach depends upon the desire of participants to take an active part in their learning and their willingness to share their experiences and knowledge with other participants.

⁶ Sullivan, R., Blouse, A., McIntosh, N., Schaefer, L., Lowry, E., Bergthold, G., Magarick, R. *Clinical training skills for reproductive health professional* (2nd Edition). Baltimore: JHPIEGO, 1999.



Clients' Rights during Clinical Training

The following clients' rights need to be carefully protected during clinical training:

- The right to **bodily privacy**: Only one learning pair should take care of one woman at a time; the facilitator should not allow additional participants to come and “observe” unless they have a defined role in caring for the woman.
- The right to **confidentiality**.
- The right to **be informed about the role of** each person involved and present in the room.
- The right to **refuse care provided by participants**: The client's permission should be obtained before having a participant observe, assist with, or perform any procedures.
- The right to **withdraw permission** even if the participant has already begun observing, assisting with, or performing the procedure. Should this occur, the facilitator will need to inform ward staff that they will need to take over care.
- The right to **have a facilitator or clinical trainer present** whenever the participant is providing care; the facilitator will need to be ready to intervene if the client's safety is in jeopardy or if the client is experiencing severe discomfort.

Planning for Learning

As part of planning for learning, facilitators should:

- Develop a plan for each clinic day.
- Place participants in different areas at the clinical site:
 - The delivery room: participants can perform AMTSL, examination of the placenta, care of the baby at birth, observe/assist in resuscitation where feasible, help initiate breastfeeding, and monitor the woman and baby during at least the first hour postpartum.
 - The postpartum room/maternity ward/recovery room (room for monitoring the woman and baby during the first 6 hours postpartum): participants can monitor the woman and baby during the first 6 hours postpartum, evaluation of breastfeeding, examination and postnatal care of the baby.
- Arrange a place for practice on anatomic models: any participants that are found not to be competent on an anatomic model must be documented as competent before practicing on clients. This place will also be useful for participants to practice resuscitation repeatedly on the mannequin.
- Discuss learning objectives and the number of participants to expect with the ward staff and participants.
- Choose clients carefully and develop a system for assigning participants to each client; the clients chosen should be appropriate for the clinical training purposes identified.
- Include other learning areas that impact on client care, including but not limited to infection prevention practices, ordering and storage of uterotonic drugs, and client flow.
- Prepare additional activities for the participants for times when there are few or no clients in the clinic.
- Plan for opportunities when participants can review with partners or small groups the site and care practices observed so as to identify good practices, challenges, and suggestions for improvement. The suggestions can be developed as strategies and actions that can be implemented in three phases:

- in the very near future with existing resources (primarily a matter of reorganization),
- in the following year with additional resources that are feasible, and
- over the long term in cases where considerable resources are needed.

This last activity will assist participants in making similar plans for the centers where they work.

Learning in the Clinic

With respect to learning opportunities in the clinic:

- The facilitator must actively monitor the skills each participant is able to practice and with what frequency, so that each participant has adequate opportunities to develop the various competencies.
- It is essential that the trainer be flexible and constantly alert to learning opportunities as they arise in the clinic.
- Participants should be encouraged to watch for learning opportunities in the clinic.
- To take advantage of opportunities as they occur may require that the facilitator modify the plan for that day and subsequent days.
- The facilitator may supplement the work done with clients with case studies and role plays.
- The facilitator must actively monitor the clinical experiences of each participant so that:
 - each participant receives appropriate and adequate opportunities for skill practice,
 - participants don't disrupt clinic functioning or interfere with ward staff or their duties,
 - the care provided by each participant does not harm clients or place them in an unsafe situation.

Pre- and Post-Clinical Practice Meetings

Items covered in a pre-clinical practice meeting should include:

- The learning activities for the day
- Any scheduling changes that may be needed
- Participants' roles and responsibilities for that day, including the work assignments and rotation schedule if applicable
- Special assignments to be completed that day
- The topic for the post-clinical practice meeting
- Questions related to that day's activities or from previous days if they can be answered concisely. If not, they should be deferred until the post-clinical practice meeting.

Items covered in a post-clinical practice meeting should include:

- Review the day's learning objectives and assess progress toward their completion.
- Present cases seen that day, particularly those that were interesting, unusual, or difficult.
- Respond to clinical questions concerning situations and clients in the clinic or information in the Participant's Notebook.
- Plan for the next clinical session, making changes in the schedule as necessary.
- Conduct additional practice with models if needed.
- Review and discuss case studies, role plays, or assignments that have been prepared in advance by the participants.



Supervision in the Clinical Area

The following guidelines are recommended for facilitators in the clinical area:

- The facilitator must always be with participants when they are working with clients.
- Participants must understand what they can do independently and what requires facilitator supervision.
- Participants should be made responsible for ensuring that they are supervised when necessary.
- Additional activities that require no direct supervision will give participants the opportunity to be actively engaged in learning when they are not with clients.
- Clinic staff also can act as supervisors if the trainer is confident of their clinical skills and ability to provide appropriate feedback.
- If participants are placed in several clinical sites, take care that the ratio of four participants for one facilitator is never exceeded.
- It is a good idea to share information about the participants with the clinical staff whenever they will have to take over a large part of the participant's supervision.
- Clinic staff should be encouraged to do an initial assessment of participant's skills before allowing them to work with clients so that they can feel confident that the participants are well prepared.
- Clinic staff should be aware of the feedback the trainer would like to receive from them about the participants.
- The ultimate responsibility for supervision and evaluation of the participants always falls on the facilitator.

Tracking Clinical Experiences and Practice

To ensure that each participant receives appropriate and adequate opportunities for skill practice, participants will keep track of their experiences using a wall chart (see the following page). The wall chart is a way to keep track of skills they “performed,” skills they “assisted” another participant with, and skills they “observed” another participant or a provider performing.

The wall chart is a way to follow participants' progress and assist facilitators in ensuring appropriate clinical experiences for all of the participants. Make a copy of the wall chart below on a flipchart and post it where participants can use it.

Facilitators will mark the date the participant was found competent in each skill on the wall chart. When the participant is found competent on a model, the date will be marked in the “demonstrated” column; when the participant is found competent on a client/in the clinical area, the date will be marked in the “practiced” column. Participants will need to make a mark (“|”) under each skill when they have observed another participant or a provider performing the skill in the clinical area on a client.

Note: As there may not be many cases of birth asphyxia, developing and evaluating resuscitation skills may be possible only on the mannequin. Should there be cases of birth asphyxia during the clinical practicum, the facilitators should ensure that as many of the participants as feasible should be called in to observe.

WALL CHART: Skills to be Learned and Assessed

Skill	AMTSL + essential newborn care (ENC)			Care for the newborn at birth		Monitoring the woman and newborn in the immediate postpartum			Newborn resuscitation			Facilitating initiation of breastfeeding		Examination and essential postnatal care for the woman			Examination and essential postnatal care for the newborn		
	Demonstrated *	Observed**	Performed ***	Observed	Performed	Demonstrated	Observed	Performed	Demonstrated	Observed	Performed	Demonstrated	Performed	Demonstrated	Observed	Performed	Demonstrated	Observed	Performed
Learner																			

* Demonstrated: Task demonstrated by the participant to the facilitator on an anatomic model.
 ** Observed: Task observed by the participant while performed by a facilitator or another participant on a client.
 *** Performed: Task performed by the participant on a client.



PART II: Facilitator's Notes for Specific Training Sessions

SESSION 1: Preventing Infection

Summary

In this section, important infection prevention (IP) principles will be reviewed, focusing on hand washing, wearing gloves, use of aprons, use of needles, waste disposal, and the four steps for processing instruments and supplies. Understanding and using infection prevention practices is important to prevent major infections while providing care and to reduce the risk of transmitting serious diseases such as hepatitis B, hepatitis C, and HIV/AIDS to the woman and to staff, including those who clean up after childbirth.

Facilitator's Note

The goal of this session is to review IP principles and practices for providers who already have a basic understanding of them. Facilitators may need to add facility-specific information and visuals—for example, types of containers used for sharps, procedures for processing gloves, types of containers used for mixing and storing chlorine decontamination solution, and procedures for sterilization and high-level disinfection.

Facilitators should use their judgment regarding how much content to include.

Objectives

By the end of this session, participants will have the knowledge to:

- Explain the five basic principles of infection prevention.
- Describe ways to protect oneself and others from infection, focusing on hand washing; proper waste disposal; use of gloves, aprons, and other protective gear; and injection safety.
- Describe the four steps for decontaminating instruments.
- Explain how to mix a 0.5% chlorine decontamination solution.

Materials/Resources Needed

- Reference Manual, Participant's Notebook, and Facilitator's Guide
- Flipchart, flipchart stand, markers, and flipchart tape
- Water, 4-5 plastic containers to prepare a chlorine solution, 4-5 measuring cups, and 4-5 bottles of chlorine (if possible get bottles with different commercially available concentrations of chlorine) and chlorine tablets (as available in the country)
- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Description of the interactive game

Duration: 45 minutes



Facilitation Techniques

- Brainstorming
- Question/Answer
- Interactive lecture
- Case studies
- Interactive game

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Principles of infection prevention:</p> <ul style="list-style-type: none"> • Every person (client or staff) is considered potentially infectious. • Hand washing is the single most important practice for preventing cross-contamination. • Wear gloves. • Use protective items (aprons, face masks, eye goggles) if splashes or spills of any body fluids are expected. • Use safe work practices: handle and dispose of sharps and needles safely; prevent splashes. <p>Protective gear:</p> <ul style="list-style-type: none"> • Surgical gloves: <i>Protect clients:</i> against microorganisms on the provider's hands. <i>Protect providers:</i> Protect hands from contact with blood, other fluids, and tissues. • Masks: <i>Protect clients:</i> against microorganisms expelled during talking, coughing, and breathing. <i>Protect providers:</i> Protect the nose and mouth from splashes of blood and other fluids. • Gowns and waterproof aprons: <i>Protect clients:</i> against microorganisms; <i>Protect providers:</i> Protect the skin and clothes from contact with blood and other fluids. • Caps: <i>Protect clients:</i> against microorganisms in hair and skin shed from the provider's head. <i>Protect providers:</i> No protection documented. • Eye covers/Face shields: <i>Protect clients:</i> No protection documented. <i>Protect providers:</i> Protect the provider's eyes from splashes of blood and other fluids. 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/Question-Answer/Interactive Lecture Step A: Facilitate a brainstorming session to make a complete list of when providers need to wash their hands in health care settings. Step B: Facilitate a brainstorming session to make a complete list of when providers need to wear each type of gloves in health care settings Step C: Complete any information that may have been missed.</p> <p>Activity 2: Question-Answer/Interactive Lecture Step A: Briefly review each type of protective gear. Step B: Ask if there are questions before proceeding.</p> <p>Activity 3: Brainstorming/Question-Answer/Interactive Lecture Step A: Present an illustrated lecture on handling sharp instruments to prevent injuries in the workplace. Step B: Describe how to prevent injuries in the workplace due to accidental needle sticks. Step C: Facilitate a brainstorming session to make a list of how to prevent splashes of blood and body fluids in health care settings.</p>

Steps of instrument processing:

- **Decontamination:** The first step in processing instruments and other items for reuse. Decontamination kills viruses (such as hepatitis B, other hepatitis viruses, and HIV) and many other microorganisms, making these items safer to handle by the staff who perform cleaning and further processing.
- **Cleaning:** The second step in processing instruments that refers to scrubbing with a brush, detergent, and water to remove blood, other body fluids, organic material, tissue, and dirt. In addition, cleaning greatly reduces the number of microorganisms (including bacterial endospores) on items and is a crucial step in processing. If items have not first been cleaned, further processing might not be effective.
- **High-level disinfection (HLD):** The process that destroys all microorganisms (including bacteria, viruses, fungi, and parasites), but does not reliably kill all bacterial endospores, which cause diseases such as tetanus and gas gangrene.
- **Sterilization:** The process that destroys all microorganisms (bacteria, viruses, fungi, and parasites), including bacterial endospores, from instruments and other items.

Activity 4: Question-Answer/Interactive Lecture

Step A: Present the diagram showing the four steps for processing instruments.

Step B: For each step, ask a volunteer to explain how the step helps to prevent infection.

Step C: Ask a participant to briefly describe the difference between *high-level disinfected* and *sterile*.

Activity 5: Question-Answer/Interactive Lecture/Case Studies

Step A: Present and explain how to prepare a 0.5% chlorine solution using liquid household bleach.

Step B: Ask if there are questions and then present the case studies.

Step C: Give participants five minutes to calculate how to prepare a 0.5% chlorine solution with the chlorine preparations provided in the case studies.

Step C: Provide solutions to the case studies.

Activity 6: Interactive Game

Refer to the following pages of the Facilitator's Guide for instructions on how to play this game. Refer to the pages following instructions for the game to find answers to the questions. The questions, without the answers, are located in the Participant's Notebook.

(Note: If time does not permit the interactive game during the technical session, it can also be carried out later during the clinical practice stage.)

Review the objectives of the session.



Infection Prevention (IP) Knowledge Game	
(Note: If time does not permit carrying out the interactive game during the technical session, it can be carried out later during the clinical practice stage.)	
Purpose	To present basic information on IP in an easy and enjoyable way while allowing participants an opportunity to demonstrate what they know.
Duration	30 minutes
Introduction	<p>Set up round tables that will accommodate 4-6 participants at each table. Divide the group into 2-4 teams of equal size, depending on the size of the group and the amount of time you have. The more teams there are, the longer the game will take.</p> <p>Arrange the groups somewhat evenly by discipline, so that each group has the same number of nurses, doctors, and so on. Number the teams 1, 2, 3, and 4 and ask the participants to sit with their teams.</p> <p>Prepare a flipchart that has a circle divided into six parts for each team. Write a team's number on top of each circle.</p> <p>Start the exercise by explaining that the objective is to be the first team to complete the circle. Each team can fill in one-sixth of the circle each time the team gets a correct answer in six of the following categories:</p> <ul style="list-style-type: none"> • Hand washing • Protective gear • Handling sharps • Preventing splashes • Waste disposal • Instrument processing <p>Ask participants to turn to classroom learning activities for Additional Topic 1: Infection Prevention in the Participant's Notebook that has a copy of the questions without the answer key.</p>
Activities	<p>Give the participants 15–20 minutes to answer the questions, working together in their teams.</p> <p>Remind the teams to record their answers on the question sheet.</p> <p>Suggest that they keep the answers simple and not linger on any one question.</p> <p>To begin play, the first team chooses a category and a question, then reads the question aloud and gives the answer. The team has 10 seconds to answer.</p> <p>If correct, the team colors in one-sixth of its circle and records next to the circle the name of the category from which the question came.</p> <p>A team may only answer one question per category.</p>

	<p>If incorrect, the next team gets to answer that question or another question of its choosing.</p> <p>Once a team correctly answers a question, no other team may use it. The facilitator should clarify any misconceptions that may have surfaced during the discussion once a team has answered a question.</p> <p>The next team takes a turn.</p> <p>The first team to fill its circle by coloring in all six pieces (representing six correct answers in six different categories) is the winner and receives the prize.</p>
Debriefing	<p>Point out that each participant brings a great deal of knowledge and expertise to the training activity and that by working together participants are able to respond correctly to many of the IP questions in the Knowledge Game.</p>

Answers to IP Knowledge Game

Category 1: Hand washing

For each practice or situation described below, select whether it is an acceptable or unacceptable hand washing practice.

Practice	Answer (circle one)
1. A doctor washes his hands by dipping them in a basin of water before examining a patient.	<i>Unacceptable: Hands can be contaminated by dipping them in a basin of water. Standing water can easily become contaminated even if antiseptic is added.</i>
2. If there is no running water at a clinic, one staff member pours water over the other's hands for hand washing.	<i>Acceptable: If there is no running water, this practice is an acceptable substitute, as long as the water being poured is clean.</i>
3. A large bar of soap is kept in a saucer for use by all personnel in the examination room.	<i>Unacceptable: Small pieces of soap kept in a dish that allows drainage are best. A large bar of soap in a dish with no drainage can become contaminated easily.</i>
4. Staff members wash their hands for approximately five seconds.	<i>Unacceptable: Staff must wash their hands for 10-15 seconds.</i>
5. A staff member arrives at the clinic to find many people waiting for her, so she immediately begins seeing clients without washing her hands.	<i>Unacceptable: Staff should wash their hands when they arrive, before they leave a health facility and in between handling patients.</i>



Category 2: Protective gear

For each practice or situation described below, select whether it is an acceptable or unacceptable infection prevention practice.

Practice	Answer (circle one)
1. Put gloves in the labor room sink after use.	Unacceptable: Gloves should be decontaminated immediately after use and then discarded or cleaned and high-level disinfected or sterilized.
2. Rub the fundus after delivery of the placenta without using gloves.	Unacceptable: The woman's abdomen can be contaminated by body fluids and blood during countertraction and skin-to-skin contact with the newborn, and exam gloves should therefore be worn to protect the provider.
In the space provided, circle <i>true</i> or <i>false</i> for each statement.	
3. Protective gear should be worn when handling a baby after delivery, before the infant is bathed.	True
4. Gloves provide a barrier against possible infectious microorganisms that can be found in blood, other body fluids, and waste.	True: Gloves act as a barrier.
5. Even when gloves are decontaminated, cleaned, and high-level disinfected, they should not be used if there are holes in them.	True

Category 3: Handling sharps

In the space provided, circle *true* or *false* for each statement.

Practice	Answer (circle one)
1. Injuries with sharp objects occur when sharps are left on surgical drapes or bed linens.	<i>True: Sharp objects left on drapes or bed linen can cause injuries.</i>
2. To reduce the risk of a needlestick, recap a needle by holding the syringe in one hand and holding the needle in the other hand.	<i>False: You should avoid recapping needles.</i>
3. Housekeeping staff are rarely at risk of injury or infections caused by sharps—such as hypodermic needles or scalpel blades—because they are not directly involved in client-care activities.	<i>False: Housekeeping staff are often at risk of injury or infection by sharps.</i>
For each of the practices described below, select whether it is an acceptable or unacceptable infection prevention practice:	
4. Break a hypodermic needle before disposal.	<i>Unacceptable: Providers are at risk when breaking a needle after using it and before disposal. Sharps can cause injury and transmission of serious infections, including HIV and hepatitis B.</i>
5. Wash a needlestick or cut with soap and water.	<i>Acceptable: A needlestick or cut may be washed with soap and water.</i>



Category 4: Preventing splashes

For each practice or situation described below, select whether it is an acceptable or unacceptable infection prevention practice.

Practice	Answer (circle one)
1. The provider drops instruments into a bucket with decontamination solution to avoid contact with the solution.	Unacceptable: Place items in the decontamination bucket without splashing the solution.
2. The provider artificially ruptures membranes during a contraction to prevent splashes.	Unacceptable: Avoid rupturing membranes during a contraction to prevent splashes.
3. Irrigate eyes well with water when blood or body fluids splash in them.	Acceptable
4. If you accidentally get blood or body fluids on your hands, wash with a 0.5% chlorine solution.	Unacceptable: If blood or body fluids get in your mouth or on your skin, wash with plenty of water and soap as soon as it is possible and safe for the woman and baby. Chlorine is very abrasive and can cause small wounds on your hands which increase your risk of exposure to blood-borne pathogens.
5. Hold contaminated instruments under the water while scrubbing.	Acceptable: Holding instruments and other items under the surface of the water while scrubbing and cleaning will help prevent splashing.

Category 5: Waste disposal

In the space provided, circle *true* or *false* for each statement.

Practice	Answer
1. Everyone who handles medical waste—from the point generated until final disposal—is at risk of infections and injury.	True: A large percentage of staff report having experienced waste-related injuries and infection.
2. If medical waste is stored at the health facility before being burned, it can be placed in a pile behind the clinic.	False: Place waste in a container in a closed area that is minimally accessible, and make sure all containers have lids.

3. Liquid medical waste can be disposed down a sink, drain, toilet, or latrine.	True: If this is not possible, bury it along with solid medical waste.
4. Burial sites for medical waste should not be located near water sources because of the potential to contaminate the water.	True
5. Scavenging of medical waste is rarely a problem in low-resource settings.	False

Category 6: Instrument processing

In the space provided, circle *true* or *false* for each statement.

Practice	Answer (circle one)
1. Decontamination kills all microorganisms on soiled instruments and other items.	False: Decontamination kills viruses such as HIV and many other—but not all—microorganisms.
2. When preparing a chlorine solution for decontamination, it is important to know the amount of active chlorine in the product used.	True: It is important to know the amount of active chlorine in order to make a solution of the correct strength for decontamination.
3. Cleaning instruments before sterilizing them is not necessary if they were soaked in a 0.5% chlorine solution for 10 minutes.	False: Although decontamination makes items safer to handle, cleaning is still necessary to remove organic material, dirt, and other matter that can interfere with further processing.
4. Sterilizing may not be effective if blood and other organic material are not cleaned from instruments before sterilizing.	True: It is important to clean items before sterilization; microorganisms trapped in blood and other matter can survive the sterilization process.
5. High-level disinfection kills all microorganisms.	False: High-level disinfection does not reliably kill all bacterial endospores.



SESSION 2: Clinical Decision-Making

Summary

This session provides an overview of why the problem-solving method is important, the steps of the problem-solving method, and how to document care provided with the problem-solving method.

Objectives

When asked to explain a methodical approach to making clinical decisions, the participants will be able to:

- Define the concept of clinical decision-making.
- Describe the steps to follow when making a clinical decision:
 - gather information,
 - identify needs and problems ,
 - make a plan of care,
 - implement the plan of care, and
 - evaluate the care provided.

Materials/Resources Needed

- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Description of small group work
- Flipchart, flipchart stand
- Markers
- Flipchart tape

Duration: 45 minutes

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Case study
- Group discussions

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Using a methodical approach to make clinical decisions has three advantages:</p> <ul style="list-style-type: none"> • It guides you to gather information in an organized manner. • It helps you to gather complete information so that a problem can be correctly identified. • It helps you avoid using interventions that are not needed. <p>The clinical decision-making process includes five steps:</p> <p>Step 1: Make a list of the possible problems the client may be experiencing based on the client's presenting problem.</p> <p>Step 2: Take a targeted history.</p> <p>Step 3: Perform a targeted physical examination.</p> <p>Step 4: Identify needs and problems.</p> <p>Step 5: Make a plan of care based on identified needs and problems.</p> <p>There are two types of history-taking and physical examinations:</p> <ul style="list-style-type: none"> • Routine history-taking/physical examination • Targeted history-taking/physical examination <p>A care plan may include any of the following: medical treatment, health education, counseling, laboratory tests, diagnostic tests, and referral.</p> <p>Documentation of care should include:</p> <ol style="list-style-type: none"> 1. Date and time, all symptoms, based on what the woman has said, findings from the physical examination and laboratory information, and problems and needs identified. 2. For each problem/need, the following information should be clearly documented: treatments prescribed, prophylaxis prescribed, laboratory or other examinations ordered, counseling and education given, referrals made, date to return for care. 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/Question-Answer/Interactive Lecture Step A: Ask participants to describe how they proceed when a client presents with a complaint. Step B: Write their responses on a flipchart, trying to put them in the order recommended for the clinical decision-making process. Step C: Complete this section of the session by giving an interactive lecture on the steps of the clinical decision-making process.</p> <p>Activity 2: Brainstorming/Question-Answer/Interactive Lecture Step A: Ask participants to describe how they document care and to list the most important elements of care to document. Step B: Write their responses on a flipchart. Step C: Complete this section of the session by giving an interactive lecture on documentation of care.</p> <p>Activity 3: Case Study/Interactive Lecture Step A: Divide participants into groups of 3-4. Step B: Ask participants to refer to the case study in the Participant's Notebook. The participants will have 10 minutes to respond to the questions and prepare their answer for the plenary. Step C: Circulate in the room to provide assistance or answer questions. Step D: Facilitate a plenary discussion to present answers to the questions in the case study. Step E: Provide a summary of the session.</p> <p>Review the objectives of the session.</p>



Individual Learning Activities

Questions:

- 1) The first step in the problem solving method is to:
 - a) **collect information by asking questions** *
 - b) implement a plan
 - c) make a plan of care
- 2) The midwife gave Ms. A. medication for an infection. The midwife asks Ms. A. to return to the clinic in three days. The midwife says: "I will examine you then to see if the infection is gone." What steps in the decision-making process will the midwife carry out when the woman comes for the visit in three days?
 - a) Ask and listen.
 - b) Look and feel.
 - c) Identify the problem or needs.
 - d) **All the steps, to determine if Ms. A's problem is improving.***
- 3) A plan of care for taking appropriate action may include the following. Circle all that apply:
 - a) **medicine** *
 - b) **diet advice about nutrition***
 - c) **counseling about family planning methods***
 - d) **advice to get more rest***

Case Studies:

A woman at full term comes to the labor ward and states that she thinks she is in labor.

- 1) Step 1 and 2: Take a targeted history: What questions will you ask to collect the information needed to give her appropriate care? Where relevant, make a list of possible problems based on presenting features.

A list of the possible needs the woman may have and the problems she may be experiencing:

- ***true labor***
- ***false labor***
- ***any complications/problems associated with abdominal pain (urinary tract infection, etc.)***

A list of the questions to ask to get more information about her problem:

- ***What is your expected date of delivery (EDD)?***
- ***Is the baby moving?***
- ***When did you start having contractions?***
- ***Do you have fever, bleeding, leaking of water, any illness?***
- ***Have you had any complications of pregnancy?***

The client states her contractions are painful and started three hours ago. She has not noticed bleeding or leaking of fluid. The baby is moving. She does not have fever.

2) Step 3: Perform a targeted physical examination: What observations and examination will you do?

- **temperature, blood pressure, pulse**
- **fetal heart rate, fundal height, presentation and position and descent**
- **urine test**
- **Inspect and palpate the abdomen, palpate the contractions, listen to the fetal heart rate (FHR)**
- **sterile vaginal examination**

Her vital signs are normal. By palpation the contractions are coming every three minutes lasting 45 seconds and are of moderate intensity. FHR is 140 and regular. The examination shows that the baby appears to be average size, LOA (left occipito-anterior) presentation with the head engaged. The cervix is 5 cm dilated and the bag of water is intact.

3) Step 4: Identify problems/needs: What problems or health care needs does this situation present? Write your problem identification.

- **term pregnancy**
- **active labor**
- **mother and fetus are normal**

4) Step 5: Make a plan of care based on identified needs and problems: What will you include in your plan for this client?

- **midwifery care**
- **comfort measures**
- **support**
- **monitoring of maternal and fetal status**
- **information for client and family**
- **record on partograph**

5) How will you evaluate your plan of care?

In a case of labor, the plan will be evaluated frequently by repeating the steps to assure things are going normally.



SESSION 3: Maternal Care to Improve Maternal and Newborn Survival

Summary

During this session, participants will review antenatal care that will improve maternal health and, at the same time, improve the probability that the woman will give birth to a healthy, term newborn. By the end of this session, participants will be able to offer counsel and care to the pregnant woman that will improve her health and the survival of her newborn baby.

Objectives

When providing health maintenance care and counsel to pregnant women, participants will be able to:

- Identify times that care should be provided to a woman to improve her health and her baby's health.
- List health problems that may have consequences for the survival of the pregnant woman and her baby.
- Describe care and counseling provided to pregnant women that can benefit both the woman and her baby.
- List the elements of essential antenatal care.
- Describe how to develop a birth-preparedness and complication-readiness plan.

Materials/Resources Needed

- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Description of small group work
- Flipchart, flipchart stand
- Markers

Duration: 2 hours

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Interactive game
- Group discussions
- Role play

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Maternal health is linked with the newborn's survival because:</p> <ul style="list-style-type: none"> • Fetal growth and development depend upon the mother's health. • The mother's body gives food, oxygen, and protection to the fetus. • Any time a mother is sick during pregnancy, there is a risk that she will not be able to meet all of her fetus' needs. • Infection in the mother may be transmitted to her baby. <p>Effective antenatal care includes:</p> <ul style="list-style-type: none"> • Care from a skilled attendant and continuity of care: at least 4 visits during pregnancy, 1 visit each during the first and second trimesters and 2 during the third trimester. • Preparation for birth and potential complications. • Promoting health and preventing disease: tetanus toxoid, nutritional supplementation, counsel about tobacco and alcohol use, etc. • Detection of existing diseases and treatment: HIV, syphilis, tuberculosis, other co-existing medical diseases (e.g., hypertension, diabetes). • Early detection and management of complications. • Detection of diseases that influence fetal health, growth, and development (malaria, syphilis, tuberculosis, HIV/AIDS, urinary tract infection, anemia, diabetes, STI, bacterial vaginosis). • Client-centered and gestational age-specific counseling for women and partners/supporters (nutrition and micronutrients, rest, danger signs, family planning, breastfeeding, prevention of malaria, dangers of abusing alcohol and tobacco). • Interventions to prevent maternal-to-child transmission of HIV. <p>Elements of a birth-preparedness plan include: Prepare the necessary items for birth; identify a skilled attendant and arrange for her/his presence at birth; identify an appropriate site for birth and how to get there; identify support people, including who will accompany the woman and who will take care of the family; establish a financing plan/scheme.</p>	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Interactive Lecture Step A: Give an interactive lecture providing an overview of care to provide to a woman during her reproductive health life. Step B: Explain the objectives of antenatal care as well as the reasons that use of the "risk approach" is no longer recommended.</p> <p>Activity 2: Facilitate the interactive game (see the following pages) and follow the game by providing a summary of essential maternal care during pregnancy. If for any reason there is inadequate time to play this game fully, then list the key technical elements.</p> <p>Activity 3: Role Play Step A: Divide participants into four groups. Ask participants in groups 1 and 2 to prepare a role play showing a provider working with a pregnant woman and her family to develop a birth-preparedness plan. Ask participants in groups 3 and 4 to prepare a role play showing a provider working with a pregnant woman and her family to develop a complication-readiness plan. Ask for two volunteers in each group: one will play the role of the provider and the other the role of the pregnant woman. Step B: Give participants 10 minutes to prepare the role play. Circulate between the groups and provide assistance as needed.</p>

**Elements of a complication-readiness plan include:**

Establish a financing plan/scheme; make a plan for decision-making; arrange a system of transport; identify a person to take care of the household and one to accompany the mother; establish a plan for blood donation where feasible.

Step C: When the groups are ready, give each group five minutes to present their role play to all of the participants.

Step D: Facilitate a discussion of the role plays and then present the slides on development of a birth-preparedness and complication-readiness plan during pregnancy.

Review the objectives of the session.

Knowledge Game On Maternal Care

(If for any reason, there is no time to play this game fully, summarize the key technical points.)

Purpose	To present basic and advanced information about maternal care in a simple and enjoyable way. This game gives participants an opportunity to demonstrate what they already know. This game also gives participants a chance to get to know each other.
Duration	45 minutes
Instructions	<p>Divide the group into four teams of equal size.</p> <p>Arrange the groups somewhat evenly by discipline, so that each group has about the same number of nurses, doctors and so on. Assign a letter or number to each team (A, B, C, D or 1, 2, 3, 4...). Invite participants to join their group.</p> <p>Start the exercise by explaining that the aim is to be the first team to correctly answer one question in all five categories. It is a competition! Each team will color in one-fifth of the circle each time they answer a question correctly in the following categories:</p> <ul style="list-style-type: none"> • Antenatal care • Prevention • Birth-preparedness plan • Prescriptions • Miscellaneous <p>Ask participants to refer to instructions for the game in the Participant's Notebook.</p>

Category 1: Antenatal care

Question	Answer
How many times should a woman seek antenatal care?	<i>At least 4 antenatal visits: at 16 weeks (before the end of the 4th month) or as soon as the woman knows she is pregnant; 24-28 weeks (6-7 months); 32 weeks (8 months); 36 weeks (9 months) for a total of 2 visits during the third trimester</i>
How many months/weeks pregnant should a woman be when she goes for her first antenatal visit?	<i>16 weeks (before the end of the 4th month) or as soon as the woman knows she is pregnant</i>
What laboratory tests should be done to evaluate the woman's health and her pregnancy?	<i>Hemoglobin, blood group and Rh, sickle cell test, RPR/VDRL, albuminuria, glycosuria, HIV and urine for bacteriuria where feasible</i>
Which pregnant women should be referred for specialized care during pregnancy?	<i>Any woman with an identified complication, condition, infection, or disease</i>



Category 2: Prevention

Question	Answer
List three benefits of having nutritious and balanced meals during pregnancy.	<p>Nutritious and balanced meals during pregnancy:</p> <ul style="list-style-type: none"> • Assist the woman in providing the fetus' nutritional needs to ensure growth and development. • Improve the pregnant woman's resistance to illness and infections. • Improve the pregnant woman's chances of survival if she has PPH.
Explain why a woman needs additional rest during pregnancy and while breastfeeding.	<p>The woman's body uses more energy during pregnancy and when breastfeeding.</p>
Describe three things a pregnant woman can do to protect herself and her fetus from environmental pollution.	<ul style="list-style-type: none"> • Follow rules of hygiene for the home. • Only drink potable water. • Wash raw foods before eating. • Wash hands before preparing meals and eating.
Which pregnant/lactating women should always insist on using condoms during sexual intercourse?	<p>Ideally a condom should be used in all cases and particularly:</p> <ul style="list-style-type: none"> • If either of the sexual partners has been diagnosed with an STI. • When having sexual intercourse with a new sexual partner. • If either of the sexual partners had sexual intercourse with a third person.

Category 3: Prescriptions

Question	Answer
How many times should a woman take sulfadoxine-pyrimethamine (SP) during pregnancy if she is infected with HIV?	3 times
How often should a pregnant woman be offered a dose of mebendazole during pregnancy?	Every 6 months after the 16th week of gestation
Ms. X received her first dose of TT three months before becoming pregnant. She presents for her first ANC at 20 weeks gestation. How many TT doses should she receive during this pregnancy?	One dose of TT

Category 4: Miscellaneous

Question	Answer
List at least three pregnancy-related complications that may affect the baby's survival.	<ul style="list-style-type: none"> • Preeclampsia • Eclampsia • Abruptio placentae • Placenta praevia • Uterine rupture • Coagulopathies
List at least four maternal illnesses/diseases that may affect the baby's survival.	<ul style="list-style-type: none"> • Malaria • Anemia • Diabetes • Syphilis • Urinary tract infections • Tuberculosis • HIV/AIDS
What is the best spacing between births?	3 years
If a woman has just taken a dose of SP, how long should she wait before restarting her iron/folic acid tablets?	<i>It is recommended that there should be one week between doses of SP and iron/folic acid because of their interaction.</i>

Category 5: Birth-preparedness plan

Question	Answer
List danger signs during pregnancy.	<ul style="list-style-type: none"> • Vaginal bleeding • Severe headache or blurred vision • Abdominal pain • Decreased or no movement of the baby • Loss of consciousness or convulsions • Fever • Watery vaginal discharge • Foul-smelling vaginal discharge, itching, or genital ulcers • Painful urination • Persistent vomiting • Lethargy and fatigue • Difficulty breathing • Night blindness
List the four delays.	<ul style="list-style-type: none"> • Delay in recognizing the problem • Delay in deciding to seek care • Delay in arriving at the appropriate facility • Delay in receiving quality care



<p>What are the principal elements of a birth-preparedness plan?</p>	<p><i>Elements of a birth-preparedness plan include: Prepare the necessary items for birth; identify a skilled attendant and arrange for her/his presence at birth; identify an appropriate site for birth and how to get there; identify support people, including who will accompany the woman and who will take care of the family; establish a financing plan/scheme.</i></p> <p><i>Elements of a complication-readiness plan include: Establish a financing plan/scheme; make a plan for decision-making; arrange a system of transport; establish a plan for blood donation.</i></p>
<p>Describe how a woman will need to prepare herself to give birth in a health facility.</p>	<ul style="list-style-type: none"> • <i>Plan how to get to the health care facility. This needs to be planned in advance of the estimated date of childbirth.</i> • <i>Establish a financing plan/scheme to pay for care at the facility. Begin to save money as soon as the woman becomes pregnant, particularly if the family has budgetary constraints.</i> • <i>Identify support people who will accompany the woman.</i> • <i>Prepare a bag/suitcase with the necessary items for herself and her baby to take along when she goes into labor.</i>

SESSION 4: Preventing Postpartum Hemorrhage

Summary

The prevention, timely diagnosis, and treatment of postpartum hemorrhage are particularly important during the period immediately following the birth of the baby and the first hours postpartum. Compared to other maternal complications (such as infection), bleeding can rapidly become a mortal danger. A woman with PPH may die quickly (in less than two hours) if she does not receive the appropriate medical care, including medication, simple clinical procedures, blood transfusion, or surgical intervention.

This brief section gives an overview of postpartum hemorrhage, its causes, and the actions women, families, and health care providers can take to prevent it from occurring.

Objectives

By the end of this topic, participants will be able to:

- Define postpartum hemorrhage (PPH).
- Explain ways to prevent PPH.
- Explain ways to ensure the timely diagnosis and management of PPH when it occurs.

Materials/Resources Needed

- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Markers
- Flipchart, flipchart stand
- 500 mL container and water.
- Large cloth, sarong, sari, or towel

Duration: 45 minutes

Facilitation Techniques

- Brainstorming
- Interactive lecture

Session Plan

See the table below.



SESSION PLAN	
Themes	Facilitation Techniques
<p>Definitions:</p> <ul style="list-style-type: none"> • PPH: vaginal bleeding in excess of 500 mL • Severe PPH: vaginal bleeding in excess of 1000 mL <p>A more accurate definition of PPH might be <i>any amount of bleeding that causes a change for the worse in the woman's condition</i> (e.g., low systolic blood pressure, rapid pulse, signs of shock) because:</p> <ul style="list-style-type: none"> • It is difficult to measure blood loss accurately. • Nearly half of women who deliver vaginally often lose at least 500 mL of blood. • For severely anemic women, blood loss of as little as 200 to 250 mL can be fatal. <p>There are two ways to prevent death from PPH:</p> <ul style="list-style-type: none"> • Prevent PPH by providing quality care. • Provide care that ensures timely diagnosis and management if PPH occurs. <p>Strategies to prevent PPH include: Developing a birth-preparedness and complication-readiness plan, ensuring the presence of a skilled birth attendant at every birth, monitoring labor using the partograph, applying active management of the third stage of labor at all births, only using invasive interventions (e.g. episiotomy) in the presence of clear obstetric or medical indications.</p> <p>Strategies to reduce the risk of dying from PPH include: Developing a birth-preparedness and complication-readiness plan, preventing and treating anemia during pregnancy, ensuring the presence of a skilled birth attendant at every birth, close monitoring of the woman during at least the first 6 hours after childbirth.</p>	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/ Demonstration/Interactive Lecture Step A: Ask participants to describe how they estimate blood loss after childbirth. Step B: Perform a demonstration of PPH by pouring first 500 mL and then 1,000 mL of liquid on a sarong/cloth/sari. Step C: Facilitate an interactive lecture explaining why it is difficult to define PPH based on blood loss estimates.</p> <p>Activity 2: Brainstorming/Small Group Work Step A: Divide the participants into smaller groups of 3-4. Step B: Give 2-3 strategies for PPH prevention to each group and ask them to explain how the strategy either prevents PPH or reduces the risk that a woman will die from PPH. Step C: Give participants five minutes to prepare their answers. Circulate between the groups and provide assistance as necessary. Step D: When the groups are ready, ask each group to present their strategy and briefly explain how it either prevents PPH or reduces the risk that a woman will die from PPH. After their presentation, other participants may either ask questions of the small group or provide additional information to complement the small group's presentation.</p> <p>Review the objectives of the session.</p>

Individual Learning Activities

1. Explain why a provider needs to respond immediately to “any amount of bleeding that causes deterioration in the woman’s condition” even if she has not yet lost 500 mL.
 - ***It is difficult to measure blood loss accurately.***
 - ***Research has shown that blood loss is frequently underestimated.***
 - ***Nearly half of women who deliver vaginally often lose at least 500 mL of blood.***
 - ***For severely anemic women, blood loss of even 200 to 250 mL can be fatal.***
2. Explain why a strategy to prevent postpartum hemorrhage should not be based on identification of risk factors.
 - ***Up to two-thirds of women who have PPH have no risk factors.***
3. Describe a prevention strategy for each of the factors listed in the first column that may contribute to the loss of uterine muscle tone in the postpartum period.

Factors contributing to the loss of uterine muscle tone	Prevention Strategy
Full bladder	<ul style="list-style-type: none"> • <i>Encourage/assist women to empty their bladder during labor and before second stage.</i> • <i>Encourage/assist women to empty their bladder regularly in the immediate postpartum period.</i>
Prolonged/obstructed labor	<ul style="list-style-type: none"> • <i>Give birth with a skilled provider.</i> • <i>Monitor labor using the partograph.</i> • <i>Transfer women to a facility with Cesarean facilities once unsatisfactory progress in labor has been identified.</i>
Oxytocin induction or Augmentation of labor	<ul style="list-style-type: none"> • <i>Give birth with a skilled provider.</i> • <i>Monitor labor using the partograph.</i> • <i>Only augment or induce labor when there are clear emergency or obstetric indications.</i> • <i>Only augment or induce labor in a health facility where personnel are trained to monitor the woman and fetus and where a Cesarean operation can be performed if necessary.</i> • <i>Never give oxytocin intramuscularly in the antepartum.</i>

4. Explain how each of the components of AMTSL helps to prevent PPH.
 - ***Administration of a uterotonic drug stimulates uterine contractions that:***
 - ***facilitate separation of the placenta from the uterine wall, resulting in rapid delivery of the placenta***
 - ***compress maternal blood vessels at the placental site after delivery of the placenta.***
 - ***Controlled cord traction facilitates rapid delivery of the placenta and emptying of the uterus.***
 - ***Uterine massage stimulates uterine contractions and removes clots that may inhibit uterine contraction.***



5. Describe a strategy to ensure timely diagnosis and treatment of PPH for each of the factors listed in the first column that may contribute to the loss of uterine muscle tone in the postpartum period.

Factors contributing to the loss of uterine muscle tone	Strategy for ensuring timely diagnosis and management
Full bladder	<ul style="list-style-type: none"> • <i>Give birth with a skilled birth attendant.</i> • <i>Carefully monitor the woman during labor.</i> • <i>Carefully monitor the woman during at least the first 6 hours postpartum.</i>
Prolonged/obstructed labor	<ul style="list-style-type: none"> • <i>Give birth with a skilled provider.</i> • <i>Monitor labor using the partograph.</i>
Uterine atony	<ul style="list-style-type: none"> • <i>Give birth with a skilled birth attendant.</i> • <i>Carefully monitor the woman during at least the first 6 hours postpartum.</i> • <i>Teach the woman how to palpate and massage her own uterus and ask her to call for help if her uterus is not “hard” or the amount of bleeding has increased.</i>
Retained placental Fragments	<ul style="list-style-type: none"> • <i>Give birth with a skilled birth attendant.</i> • <i>Carefully examine the placenta and membranes to make sure they are complete.</i>

6. Explain how refocused antenatal care can considerably reduce a woman's risk of dying from PPH.

Anemia can be screened for, prevented, and treated during pregnancy. If a woman is not anemic when she gives birth, this will not prevent PPH but will improve her chances of surviving PPH if she has it.

SESSION 5: Routine Care during the Third Stage of Labor

Summary

In this session, participants will learn the steps in active management of the third stage of labor (AMTSL) as well as how to integrate them into steps for providing immediate newborn care.

Objectives

By the end of this session, participants will be able to:

- Describe preparations for the birth of the baby.
- Describe the steps of AMTSL.
- Explain how AMTSL prevents PPH.
- Describe immediate care of the newborn at birth.
- Apply AMTSL and provide immediate newborn care of the newborn at birth using a learning checklist.
- Describe components of essential newborn care at birth.

Materials/Resources Needed

For the interactive lecture

- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Reference Manual
- AMTSL job aids
- Job aids for monitoring in the immediate postpartum period
- Flipcharts, markers, flipchart tape
- DVD/television (or computer if a television is not available)
- DVD about AMTSL
- Learning guides

For the demonstration

- A bed (a gurney or table are acceptable if a bed is not available), a pillow, and bed sheets
- Obstetric and newborn models (if obstetric models are not available, volunteers can act as the woman in labor and a doll with placenta can be used to simulate delivery of the placenta), 2-4 cloths for the newborn, 1 cloth for the woman's abdomen, a delivery kit (1 scissors, 2 clamps), cord ties or clamps, and a kidney basin or a bowl to collect the placenta, and a clinical digital thermometer
- Infection protection equipment and supplies: protective gear (glasses, plastic apron, shoe covering), a bucket, chlorine, water, sterile and exam gloves, soap, towels, a waste bin, and utility gloves
- Oxytocin, a syringe, a needle, alcohol and cotton swabs, and a sharps disposal box

Duration: 4 hours

Facilitation Techniques

- Brainstorming/Interactive lecture
- Demonstration/Return demonstration

Session Plan

See the table below.



SESSION PLAN	
Themes	Facilitation Techniques
Part 1: Preparation for the birth	
<p>In order to ensure a clean delivery, providers need to know how to implement the following infection prevention procedures (the “six cleans”):</p> <ul style="list-style-type: none"> • Clean hands: hand washing. • Clean perineum: assist the woman to bathe during labor, clean the perineum before each exam. • Clean delivery surface: cleaning and decontaminating all surfaces the woman and baby will come into contact with. (Ideally at the facility level these surfaces should be covered with sterile linen for the birth.) • Sterile cord-cutting instruments: decontaminating, cleaning, and high-level disinfecting or sterilizing all materials used for the delivery. • Clean cord care: sterile cord ties and clean cord surface. • Nothing unclean should be introduced into the vagina. <p>The above “cleans” together with TT have been found to be effective means to reduce maternal and newborn deaths.</p> <p>Preparation for the birth: Prepare the delivery room; prepare and study the woman’s medical records; ensure cleanliness of the woman and the delivery room; prepare all of the equipment needed for maternal and newborn care, including for newborn resuscitation; meet with the woman and her companion to discuss care.</p> <p>To conduct a safe delivery, the provider should:</p> <ul style="list-style-type: none"> • Monitor the progression of the second stage and support the woman. • Avoid all invasive interventions unless there is a clear obstetric or medical indication. • Recognize danger signs in the woman and fetus and when to refer the woman. • Provide initial management for complications during the woman’s referral to a higher level of care. 	<p>Warm-up or energizer</p> <p>Read the objectives of the session</p> <p>Activity 1: Small Group Work/Interactive Lecture Step A: Divide participants into three groups. Give each group one of the following subjects: prepare the delivery room; admit the woman; prepare the woman. Step B: Ask each group to refer to the Reference Manual and prepare a short presentation on the subject assigned to them. Give them five minutes to prepare and five minutes to present (3 presentations x 5 minutes/presentation = 15 minutes). Step C: Facilitate an interactive lecture on ensuring a clean and safe delivery.</p>

Themes	Facilitation Techniques
Part 2: Active management of the third stage of labor (AMTSL)	
<p>Active management of the third stage of labor (AMTSL) is a combination of actions performed during the third stage of labor to prevent PPH. AMTSL speeds delivery of the placenta by increasing uterine contractions and prevents PPH by minimizing uterine atony. The components of AMTSL are:</p> <ul style="list-style-type: none"> • Administration of a uterotonic drug within one minute after the baby is born (oxytocin is the uterotonic of choice) after having ruled out the presence of an additional fetus. • Controlled cord traction (CCT) with simultaneous countertraction of the uterus. • Uterine massage immediately after delivery of the placenta to help the uterus contract and minimize postpartum bleeding. 	<p>Activity 1: Show the AMTSL DVD, where available.</p> <p>Activity 2: Interactive Lecture Step A: Ask participants to explain how they manage the third stage of labor. Step B: Facilitate an interactive lecture on the third stage of labor. Ask participants to follow along by referring to the section on AMTSL in the Reference Manual.</p> <p>Activity 3: Demonstration and Return Demonstration Step A: Ask participants to stand around the table where you are performing the demonstration. Make sure that everyone can see. Step B: Ask participants to follow the demonstration with the learning checklist in the Clinical Logbook. Step C: One facilitator will play the role of the woman and the other the role of the provider. Ask a volunteer to read the steps in the learning guide as the facilitators perform the demonstration. It is important that you follow the steps as they are listed in the learning checklist. Provide information about AMTSL as you are performing the demonstration. Avoid giving a lecture. Step D: Ask participants if they have questions and repeat as many of the steps as necessary. Reassure participants that they will have the opportunity to practice the AMTSL steps on an obstetric mannequin.</p>

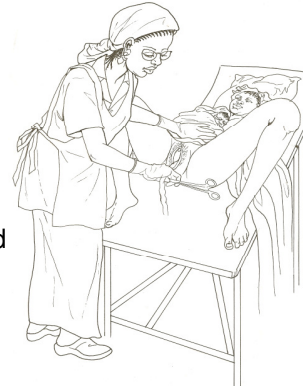


Steps for AMTSL

1: Dry the baby and place the baby in skin-to-skin contact on the abdomen of the mother, assess the baby's breathing and perform resuscitation if needed. Cover the baby's head with a cloth or a hat/bonnet. Cover the woman and baby, leaving the face exposed.



5: Perform controlled cord traction while at the same time supporting the uterus by applying external pressure on the uterus in an upward direction towards the woman's head

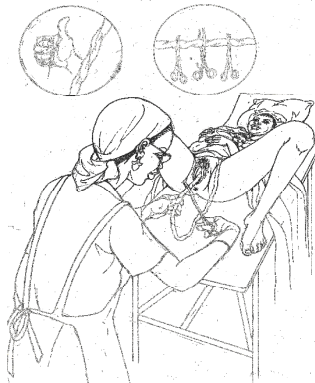


2: Administer a uterotonic (the uterotonic of choice is oxytocin 10 IU IM) immediately after the birth of the baby, and after ruling out the presence of another baby.



6. Massage the uterus immediately after delivery of the placenta and membranes until it is firm.

3: Clamp and cut the cord after cord pulsations have ceased or approximately 2-3 minutes after birth of the baby, whichever comes first. Cover the cord with a piece of gauze when cutting the cord to avoid splashing of blood.



During recovery, assist the woman to breastfeed, monitor the newborn and woman closely, palpate the uterus through the abdomen every 15 minutes for 2 hours to make sure it is firm and monitor the amount of vaginal bleeding. Provide PMTCT care as needed.



4: Place the infant directly on the mother's chest, prone, with the newborn's skin touching the mother's skin. Cover the baby's head with a cap or cloth. Cover the woman and baby.



Themes	Facilitation Techniques
Part 3: Immediate care of the newborn	
<p>Steps for immediate care of the newborn:</p> <ul style="list-style-type: none"> • Dry the baby, change the wet cloth, and cover the baby over the mother’s abdomen. • Evaluate respiration (if not breathing, follow the steps noted in the chapter on resuscitation. If breathing well, provide essential newborn care) • Keep the newborn warm. • Clamp and cut the cord 2-3 minutes after birth. • Initiate breastfeeding. • Provide eye care. • Administer vitamin K1. • Provide appropriate care for prevention of maternal-to-child transmission of HIV/AIDS where the mother is HIV-positive. <p>Care for the newborn is too often neglected with the result that newborn morbidity and mortality rates remain high.</p>	<p>Activity 1: Interactive Lecture Step A: Ask participants to describe elements of immediate care of the newborn at birth. Step B: Facilitate an interactive lecture on immediate care of the newborn at birth to complete information provided by the participants.</p> <p>Activity 2: Demonstration/Return Demonstration of immediate care of the newborn at birth Step A: Ask participants to stand around the table where you are performing the demonstration. Make sure that everyone can see. Step B: Ask participants to follow the demonstration with the learning checklist. Ask a volunteer to read the steps in the learning checklist as the facilitator performs the demonstration. It is important that you follow the steps as they are listed in the learning checklist. Provide information about immediate newborn care as you are performing the demonstration. Avoid giving a lecture. Step C: Ask participants if they have questions and repeat as many of the steps as necessary. Reassure participants that they will have the opportunity to practice the AMTSL steps on an obstetric mannequin.</p> <p>Activity 3: Demonstration/Return Demonstration of AMTSL integrated with immediate care of the newborn at birth Step A: Ask a volunteer to read the steps in the learning checklist as the facilitator performs the demonstration. Step B: Divide participants into equal numbers at each anatomic model. One learning pair will work on the demonstration at a time; others will observe the team. Step C: Ask if there are questions and repeat as many steps as necessary. Step D: Allow participants time to practice on the models. Circulate around the room and provide assistance as needed.</p> <p>Review the session objectives</p>



Individual Learning Activities

Questions:

1. Ms. B is about to deliver and you plan to actively manage the third stage of labor. When will you administer 10 IU of oxytocin to Ms. B?

Within one minute after the birth of the baby and after ruling out the presence of another fetus.

2. What must the provider rule out before giving oxytocin for AMTSL?

An additional baby or babies

3. List the three main steps of AMTSL.

- ***Administration of a uterotonic within one minute after the birth of the baby***
- ***Controlled cord traction***
- ***Uterine massage after delivery of the placenta***

4. To safely perform controlled cord traction for delivery of the placenta, the provider holds the clamped cord with one hand. With the other hand placed on the woman's abdomen above the pubic bone, the provider pushes the uterus upwards toward the woman's head. Why does the provider push the uterus upward?

To stabilize the uterus and prevent uterine inversion

5. Ms. B just gave birth to a healthy baby. Her perineum is intact. After delivery of the placenta, how often will the provider monitor her vaginal bleeding?

Every 15 minutes for 2 hours, then every 30 minutes for 1 hour, then every hour for 3 hours

6. How will you react:

- a. if the placenta is not delivered after the first attempt at controlled cord traction?

Release tension on the cord while still holding the cord and then release pressure on the uterus. Wait for the next contraction.

Repeat controlled cord traction with countertraction on the uterus with the next contraction.

- b. if the cord is ruptured during controlled cord traction?

Ask the woman to squat and deliver the placenta.

- c. if the placenta is not delivered after four attempts at controlled cord traction?

Consider placenta accreta and prepare the patient for a surgical intervention.

7. List the key steps of essential newborn care at birth.

Answer: The key components of essential newborn care at birth include the steps noted below:

Key Steps for Immediate Care of the Newborn (The order may be changed according to the local needs except for steps 1-3.)	
Step 1	Dry the baby and keep him/her warm by placing the baby on the mother's abdomen.
Step 2	Assess breathing. Make sure the baby is breathing well.
Step 3	If the baby does not breathe, clamp/tie and cut the cord immediately and start resuscitation. If the baby does cry/breathe well, clamp/tie and cut the cord after pulsations stop or after 2-3 minutes.
Step 4	Place the infant in skin-to-skin contact on the mother's chest and cover them with clean linen and blanket as required. Carry out all the steps noted below up to #9 preferably with the baby on the mother's chest.
Step 5	Administer eye drops/eye ointment.
Step 6	Administer vitamin K1.
Step 7	Place the baby identification bands on the wrist and ankle.
Step 8	Assist the mother to initiate breastfeeding within the first hour. Select the appropriate method of feeding for the HIV-infected mother, based on informed choice.
Step 9	Weigh the infant when he/she is stable.
Step 10	Record observations and treatment provided in the registers/appropriate chart/cards.
Note	Defer the bath for at least six hours. Clean the newborn of an HIV-infected mother as recommended by the Ministry of Health.

8. What steps will you take to ensure that the newborn baby is warm after birth.

The steps include the following:

- **Dry the baby immediately after birth with a clean, dry cloth (preferably sterile and pre-warmed).**
- **Discard the wet cloth and cover the baby over the mother with a fresh dry cloth.**
- **Place the baby in skin-to-skin contact, first on the mother's abdomen and later, after cutting the cord, on the mother chest and cover the body and head of the baby over the mother's chest.**
- **Have a source of warmth and a table for special procedures such as resuscitation.**
- **Check that the baby is warm by noting the axillary temperature with a thermometer, or at least by touching the baby's abdomen, hands, and feet and ensuring that they are all warm.**



9. What counseling will you provide to the woman about care for her baby before transferring her out of the delivery room?

Counsel the mother before she leaves the delivery room. However, if she is very tired after delivery, only talk to her about the key points noted below.

- ***Keep the baby warm.***
- ***Continue breastfeeding frequently on demand day and night.***
- ***Do not give any other fluids/food to the baby.***
- ***Do not apply any harmful substances on the cord such as ash or herbal preparations.***

More detailed counseling can be done in the postnatal period in the facility before the mother is discharged and at subsequent postnatal visits.

SESSION 6: Monitoring the Woman and Newborn during the First 6 Hours Postpartum

Summary

During this session, participants will learn how to monitor the woman and newborn during the first 6 hours following childbirth.

Objectives

By the end of this session, participants will be able to:

- Identify principles of care to follow when providing care to the woman and newborn during the first 6 hours after childbirth.
- Describe how to integrate maternal and newborn care.
- Monitor the woman and newborn during the first 6 hours after childbirth.

Materials/Resources Needed

- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Markers
- Flipchart, flipchart stand

Duration: 1 hour

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Case studies

Session Plan

See the table below.



SESSION PLAN	
Themes	Facilitation Techniques
<p>Monitoring the woman and newborn in the immediate postpartum</p> <p>Many maternal and newborn deaths occur during the first four hours after delivery. If providers closely monitor the woman and newborn during this period, they may be able to detect and treat complications in a timely manner and prevent unnecessary deaths.</p> <p>AMTSL will only prevent 60% of PPH cases, making extreme vigilance during the immediate postpartum care an essential intervention to improve the survival of the new mother.</p> <p>Principles:</p> <ul style="list-style-type: none"> • Ensure the room is warm (25 °C) and that there are no drafts. • Document all observations, treatments, and care provided in the woman's and newborn's medical chart. • Keep the woman and newborn in the delivery room for at least one hour after delivery of the placenta; do not separate the mother and newborn. • Never leave the woman and newborn alone in the delivery room. • Ideally, perform a comprehensive exam of the woman and newborn one hour after delivery of the placenta or before transfer out of the delivery room; or at least check for danger signs and perform the comprehensive exam in the postnatal ward. • Do not discharge the mother or newborn before 12 hours after delivery of the placenta. <p>Frequency of monitoring:</p> <p>Every 15 minutes during the first 2 hours → Every 30 minutes during the 3rd hour → Every hour during the following 3 hours.</p> <p>Parameters to monitor in the woman:</p> <ul style="list-style-type: none"> • Presence of danger signs • Vital signs: blood pressure, pulse • Vaginal bleeding • Uterine contraction 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Interactive Lecture/Case Studies</p> <p>Step A: Facilitate an interactive lecture to present recommendations for monitoring the woman in the immediate postpartum period.</p> <p>Step B: Present case studies to the plenary to review danger signs in the woman.</p> <p>Step C: Facilitate an interactive lecture to present recommendations for monitoring the newborn in the immediate postpartum period.</p> <p>Step D: Present case studies to the plenary to review danger signs.</p> <p>Review the objectives of the session.</p>

<p>Parameters to monitor in the newborn:</p> <ul style="list-style-type: none">• Respiration• Color• Umbilical cord for bleeding• Axillary temperature at least once and then by touching the extremities and the abdomen (if the extremities are not warm, recheck axillary temperature)• Presence of danger signs• Ensure exclusive breastfeeding starts within 1 hour• Check anus at birth; first stool is within 24 hours• Check for urine: first urine may be delayed up to 48 hours	
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Individual Learning Activities

Case studies

1. Ms. Kabongo

Ms. Kabongo gave birth at 1:20 pm. It is now 3:50 pm. You assess Ms. Kabongo and find the following:

- BP: 120/70; pulse: 88 beats/minute
- Uterus well contracted; vaginal bleeding: < 1 sanitary pad since the last time you checked her 30 minutes ago
- Bladder is distended and Ms. Kabongo cannot pass urine.
- The newborn is breastfeeding well.
- Ms. Kabongo looks very happy.

Are there any danger signs?

Danger sign: Ms Kabongo's bladder is distended and she cannot pass urine.

2. Ms. Mpo

Ms. Mpo gave birth at 3:00 pm. It is now 7:00 pm. You assess Ms. Mpo and find the following:

- BP: 90/-; pulse: 120 beats/minute
- Uterus well contracted; vaginal bleeding: > 7 sanitary pads since the last time you checked her 1 hour ago
- Ms. Mpo just passed urine.
- The newborn is breastfeeding well.
- Ms. Mpo has cold, clammy skin.



Are there any danger signs?

Danger signs:

- **BP: 90/-, pulse: 120 beats/minute**
- **Vaginal bleeding: > 7 sanitary pads since the last time you checked her 30 minutes ago.**
- **Ms. Mpo has cold, clammy skin.**

Ms. Mpo's bleeding is most likely due to a genital tear.

3. Ms. Kabamba

Ms. Kabamba gave birth at home 4 hours ago. She came to the health center because she has been bleeding excessively. You find:

- Pulse: 96 beats/minute; BP: 110/70; respirations: 21/minute; temperature: 37 °C; her conjunctivae are pale.
- The uterus is soft.
- Sanitary cloths are soaked in blood; she put the cloth there about one hour ago.
- There are no vaginal or perineal tears.
- Her extremities are hot; she is fully conscious and oriented.
- She just passed "a good amount" of urine.

Are there any danger signs?

Danger signs:

- **The uterus is soft.**
- **Sanitary cloths are soaked in blood; she put the cloth there about one hour ago.**
- **Her conjunctivae are pale.**

Ms. Kabamba's bleeding is most likely due to uterine atony.

4. Ms. Tona

You assisted Ms. Tona during labor. You actively managed the third stage of labor. Thirty minutes after delivery of the placenta you notice that Ms. Tona has soaked four sanitary pads since you checked her 15 minutes ago. When you check her you find:

- Pulse: 112 beats/minute; BP: 80/40; respirations: 36/minute
- The uterus is soft.
- Temperature: 36 °C; pale conjunctivae; cold extremities
- Ms. Tona is very anxious.
- You can't remember the last time she passed urine.
- The newborn is breastfeeding well.

Are there any danger signs?

Danger signs:

- **Soaked four sanitary pads in 15 minutes**
- **Pulse : 112 beats/minute; BP: 80/40; respirations: 36/minute**
- **The uterus is soft.**

- **Temperature: 36 °C; pale conjunctivae; cold extremities**
- **Ms. Tona is very anxious.**
- **You can't remember the last time she passed urine.**

Ms. Tona's bleeding is most likely due to uterine atony.

5. Baby Kabongo was born at 9:20 am. It is now 11:50 am. During routine monitoring, you find:

- The color of the palms, soles, lips, and tongue is pink.
- Respiratory rate is 45/minute with no grunting or subcostal retraction.
- Mother informs you that the baby breastfed for 10 minutes.
- Blood is oozing from the umbilicus.

What steps should be taken?

Answer:

- **The only abnormality is blood oozing from the umbilical cord.**
- **There are no real serious danger signs at this stage.**
- **Action: retie the cord.**
- **Counsel the mother.**
- **Continue monitoring.**

6. Baby Mpo was born at 3:00 pm. Routine monitoring findings at 6:00 pm are:

- Respiratory rate: 65/minute; repeat count is 70/minute
- Grunting
- Mother says that the baby sucked weakly when offered the breast.

What do the findings indicate? What should be done?

Answer:

- **The baby has two danger signs: breathing too fast and a weak suck.**
- **The baby needs to be referred to the appropriate referral center after administration of the first doses of antibiotics; details related to this will be discussed during the session on major infections.**



Monitoring of the Mother in the first six hours is summarized in the chart below.

Monitoring the Woman during the Immediate Postpartum (0-6 hours after delivery of the placenta)		
Parameter	Frequency of assessment	Danger signs
<ul style="list-style-type: none"> • Vital signs: <ul style="list-style-type: none"> ○ blood pressure ○ pulse • Vaginal bleeding • Uterine hardness 	<ul style="list-style-type: none"> • Every 15 minutes for 2 hours, then • Every 30 minutes for 1 hour, then • Every hour for 3 hours 	<ul style="list-style-type: none"> • Systolic BP \leq90; Diastolic BP \leq60.
		<ul style="list-style-type: none"> • Fast, thready pulse: $>$110/minute • Sweaty or cold, clammy skin; cold extremities
		<ul style="list-style-type: none"> • Anxiety, confusion, loss of consciousness
		<ul style="list-style-type: none"> • More than one sanitary napkin soaked in five minutes • Slow, continuous bleeding or a sudden increase in vaginal bleeding
		<ul style="list-style-type: none"> • Uterus is soft or too big given the time that has elapsed since delivery. • Uterus is soft/not contracted. • Uterus is neither firm nor round.
<ul style="list-style-type: none"> • Temperature • Respiration 	Every 4 hours	<ul style="list-style-type: none"> • 3rd or 4th degree genital laceration
		<ul style="list-style-type: none"> • Temperature $>$ 38 °C • Rapid breathing (rate of 30 breaths per minute or more) • Palmar or conjunctival pallor associated with 30 or more respirations per minute (the woman tires rapidly or has tachypnea at rest)
<ul style="list-style-type: none"> • Bladder (help the woman empty her bladder if it is distended) 	Every hour	<ul style="list-style-type: none"> • The woman can't void on her own and her bladder is distended • Urinary incontinence
<ul style="list-style-type: none"> • Breastfeeding 	Every hour; verify either by asking or evaluating feeding (observe feeding at least once or twice in the 6 hours)	<ul style="list-style-type: none"> • Breastfeeding has not yet been initiated. • Other fluids/foods being given to the newborn.
<ul style="list-style-type: none"> • Psychological reaction 	Every hour	<ul style="list-style-type: none"> • Negative feelings about herself or her child

Monitoring of the baby in the first six hours is summarized in the chart below.

Monitoring of the Baby in the First Six Hours after Birth		
<p>Note: Wash hands with soap and water before touching the baby. Ensure when using items such as the thermometer that it is washed with soap and water and swabbed with alcohol before every use.</p>		
Parameter	Frequency of assessment	Danger signs
<ul style="list-style-type: none"> • Respiration • Color • Temperature (Record axillary temperature at least once in the first 6 hours. At other times, touch the baby's hands and feet and check axillary temperature if they are cold.) • Umbilical cord for bleeding • Presence of other danger signs • Ensure breastfeeding within one hour of birth and subsequent exclusive breastfeeding on demand 	<p>Assess the baby in general when the mother is assessed in the AMTSL strategy:</p> <ul style="list-style-type: none"> • immediately after birth then • every 15 minutes for 2 hours, then • every 30 minutes for 1 hour, then • every hour for the next 3 hours 	<ul style="list-style-type: none"> • Rapid respirations (more than 60 respirations per minute) • Slow respirations (less than 30 respirations per minute) • Flaring of the nostrils • Grunting • Severe subcostal retractions
		<ul style="list-style-type: none"> • Poor sucking/not sucking
		<ul style="list-style-type: none"> • Cyanosis, especially of the lips and tongue. (Cyanosis of the hands and feet may also be due to hypothermia for which the baby needs to be warmed.)
		<ul style="list-style-type: none"> • Hypothermia: body feeling cold (temperature <36.5 °C.) • Fever: usually later in the postnatal period; while the usual recommendation is >38 °C, some feel that in the newborn it's better to act when the temperature is even 37.5 °C.
		<ul style="list-style-type: none"> • Convulsions
		<ul style="list-style-type: none"> • Umbilical cord bleeding usually in the first day or two; needs retying of the cord; referral not required if that is the only sign.
<ul style="list-style-type: none"> • First voiding of urine (within 48 hours) • First stool (within 24 hours) 	<p>Check anal opening after birth. Ask about urine and stools every day and before discharge from the health care facility.</p>	<ul style="list-style-type: none"> • Absence of stool or urine after the 24 hours and 48 hours, respectively



SESSION 7: Routine Postpartum Care for the Woman

Summary

This session provides an overview of routine care for the woman during the postpartum period.

Objectives

By the end of this session, participants will be able to:

- Describe essential care for the postpartum woman.
- Provide essential care to the postpartum woman.
- Provide counseling to the woman during the postpartum period.

Materials/Resources Needed

- LCD projector
- Computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- Markers
- Flipchart, flipchart stand

Duration: 1 hour 30 minutes

Facilitation Techniques

- Brainstorming
- Interactive lecture

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Maternal care:</p> <ul style="list-style-type: none"> • Encourage the woman to eat, drink, and rest. • Ask the woman's companion to watch her and call for help if bleeding or pain increases, if the mother feels dizzy or has severe headaches, visual disturbance, or epigastric distress. • Encourage the mother to empty her bladder and ensure that she has passed urine. • Counsel the woman on self-care and hygiene. • Ensure the mother has sanitary napkins or clean material to collect vaginal blood. • Check the woman's medical chart and provide any treatment or prophylaxis indicated. <p>Key elements of the postpartum visit:</p> <ul style="list-style-type: none"> • Ask questions about health problems and about breastfeeding, care, and vaccinations already received (follow the checklist for history, physical exam, and care for the postpartum woman). • Perform a rapid assessment for danger signs that require immediate management. • If there are danger signs (even if only one), provide immediate care for the identified problem and refer where required. • Perform a comprehensive examination of the woman. • Provide treatment for all health problems identified. • Provide preventive care: TT, vitamin A, Iron/Folic acid, mebendazole, ITN. • Counsel the woman on self-care. • Set a date for the next routine postpartum visit. • Put the woman in contact with the community health worker (if one is available). <p>Provide counseling on:</p> <ul style="list-style-type: none"> • Family planning • Rest • Balanced nutrition • Cleanliness of the environment • Safer sex • Hygiene • Prevention of HIV and MTCT • Danger signs • Complication-readiness plan 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/Interactive Lecture Step A: Ask participants to work in pairs with a participant sitting next to him/her. Ask them to read the section on "Monitoring the woman and newborn during the first 6 hours after childbirth" in the Reference Manual. Step B: After five minutes, ask participants to describe routine care for the woman during the first 6 hours after childbirth. Write their responses on a flipchart. Step C: Facilitate an interactive lecture on providing routine care for the newly delivered woman during the first 6 hours after childbirth.</p> <p>Activity 2: Brainstorming/Interactive Lecture/Question-Answer Step A: Ask participants to refer to the learning checklist for the postpartum visit and list the elements of a comprehensive exam at the time of discharge from the health care facility. Step B: Facilitate a discussion on the postpartum comprehensive exam and complete answers given by the participants.</p> <p>Activity 3: Brainstorming/Interactive Lecture Step A: Ask participants to refer to the learning checklist for the postpartum visit and list care and counseling to provide to the woman at the time of discharge from the health care facility. Step B: Facilitate a discussion on postpartum care and counseling and complete answers given by the participants.</p> <p>Review the objectives of the session.</p>



Individual Learning Activity

Multiple choice

- Ms. A gave birth at 2:15 am. It is now 3:15 am and you found three pads soaked in the 15 minutes since you last checked her. What is your assessment?
 - Her vaginal bleeding is normal for this time in the immediate postpartum.
 - Her vaginal bleeding is slightly more than normal for this time in the immediate postpartum but is still within normal limits.
 - Her vaginal bleeding is excessive for this time in the immediate postpartum.**
- Ms A. gave birth at 2:15 am. It is now 5:15 am and you just checked Ms. A's BP, pulse, uterus, and vaginal bleeding and found that her uterus was boggy. You massaged her uterus until it was well contracted and noted that her vaginal bleeding was not excessive. When will you check Ms. A again?
 - At 5:30 am
 - At 5:45 am
 - At 6:15 am**
 - Prior to discharge
- Which of the following statements is **not** true?
 - Ms. A. should stay in bed during the first six hours postpartum to reduce the risk of PPH.**
 - Ms. A should be encouraged to eat and drink during the first six hours postpartum.
 - Ms. A should never be left alone during the first six hours postpartum.
 - Ms. A may take paracetamol for pain if she experiences pain after delivery.
- When you check Ms. A at 5:15 you noted that her bladder was distended. How will you manage this?
 - Tell Ms. A to empty her bladder as soon as she feels the urge to do so.
 - Assist Ms. A to empty her bladder.**
 - Catheterize her immediately as this may prevent her uterus from contracting.
 - Call the doctor to consult her on how best to manage Ms. A's distended bladder.
- What advice can you give to a woman to improve genitourinary health?

Answer:

- Encourage the woman to drink plenty of fluids so that she passes urine at least six times a day.**
- Show the woman how to clean her genital area by wiping from front to back.**
- Teach her how to do perineal tightening exercises, starting immediately postpartum: Have the woman urinate and try to stop her urine following a "go-stop-go-stop-go" pattern. When she is doing this, she can identify which muscles she tightens and uses in order to stop the flow of urine. There is no limit to how often or how many times she does this exercise.**

SESSION 8: Resuscitation for Birth Asphyxia

Summary

Neonatal resuscitation is one of the most important practices for the survival of the newborn. Health care personnel must be able to **quickly** evaluate the baby and carry out the necessary actions for resuscitation in a **timely** manner if the baby is to recover well from birth asphyxia.

Objectives

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

- assemble and prepare the necessary equipment for resuscitation of the asphyxiated newborn.
- list the signs of asphyxia in the newborn.
- explain how to resuscitate an asphyxiated baby.
- demonstrate basic resuscitation on the mannequin, including clearing of the airways and bag/mask ventilation.
- describe post-resuscitation care (follow-up and transfer where required).

Materials/Resources Needed

- LCD projector and computer
- Arrangements for microphone where feasible
- Power point and hard copies of the presentation
- A mannequin on which elevation of the chest can be demonstrated during ventilation
- Newborn self-inflating resuscitator/ventilatory bag (240-500 mL) with newborn face masks (size 1 for a normal newborn, size 0 for an LBW newborn)
- Equipment/supplies for clearing the airways (depending on availability):
 - A De Lee mucous aspirator
 - A mechanical suction machine (electrical or foot-operated) and simple suction catheters (8F and 10F)
 - 10 mL syringes
 - Rubber bulbs for suction
- Linen (3-5 pieces of cloth to cover the table and to demonstrate drying and wrapping of the baby), a blanket if available
- Pieces of gauze
- Scissors or a blade with a scalpel for cutting the cord
- Cord ties or disposable cord clamps
- Gloves
- A clinical thermometer
- A wall clock with a second hand
- A wall thermometer
- Markers/flip stand/flipchart
- A stethoscope
- Weighing scales for the baby



- An examination table with a mattress if feasible
- A source of warmth such as an overhead heating rod/bulbs which may be fixed to the table

Note: Arrange all the necessary items on the table to simulate what is usually kept in the “newborn baby corner” where the baby can be resuscitated.

Duration: 6 hours

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Group discussion
- Review of the learning and evaluation checklists
- Demonstration (plenary) by the facilitator, using the checklist
- Demonstration by facilitators in smaller groups with checklists
- Demonstration by each of the individual participants in small groups with checklists

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Anticipation and prompt action are essential.</p> <p>All birth attendants must be ready and able to perform resuscitation quickly. The necessary equipment must be available and clean/sterile and functional to provide the appropriate care.</p> <p>Definition of neonatal asphyxia: the inability to initiate and maintain respiration at birth.</p> <p>Causes of neonatal asphyxia: maternal and fetal causes. Since in about 50% of cases of birth asphyxia the cause may not be clear, it is necessary to plan and be ready for resuscitation of the baby at every delivery.</p>	<p>Advance preparation:</p> <ul style="list-style-type: none"> • Make sure in advance that each of the other facilitators has a clear concept of every step of resuscitation and subsequent care. All actions must be coordinated well between the facilitators. • Prepare lists of equipment to be fixed as a wall poster at the appropriate time. <p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Interactive Lecture Step A: Present the objectives and definition of birth asphyxia.</p> <p>Activity 2: Brainstorming/Interactive Lecture Step A: Ask the participants to list the principal causes of neonatal asphyxia. Step B: Present the causes of neonatal asphyxia from the slide and stress the importance of being ready for resuscitation at all deliveries. Promote interactive discussions and active participation during the slide presentation.</p>

<p>Key steps of resuscitation:</p> <ul style="list-style-type: none"> • Clearing of the airways • Ventilation with the bag and mask <p>Care after resuscitation:</p> <ul style="list-style-type: none"> • Maintain temperature • Monitor vital signs • Monitor breastfeeding • Other components of essential newborn care • Monitor for danger signs • Transfer the baby to a higher center after stabilization if: <ul style="list-style-type: none"> ○ resuscitation is difficult. ○ a danger sign develops. • Document findings and treatment given 	<p>Activity 3: Interactive Lecture Step A: Indicate that the Apgar score is not needed to determine and implement the steps for resuscitation. Step B: Explain that for basic resuscitation only maintaining temperature, clearing of airways, ventilation with the bag and mask, and post-resuscitation follow-up care will be covered in this session. Step C: Explain why the Apgar score, cardiac massage, and medications are not relevant at this stage at the level of peripheral health centers. Take time to answer all questions before proceeding to the practical demonstration.</p> <p>Activity 4: Brainstorming/Interactive Lecture Step A: Divide participants into four groups. Step B: Ask groups 1 and 2 to list equipment and supplies needed for basic care of the newborn, and groups 3 and 4 to list equipment and supplies needed for resuscitation of the newborn. Step C: Have the groups present their lists. Step D: Present in detail with the slides the list of equipment and supplies and the necessary preparation for neonatal resuscitation.</p> <p>Activity 5: Interactive Lecture/Brainstorming Step A: Present all the steps of resuscitation with slides. Step B: Brainstorm possible harmful actions. Step C: List some of the common errors/inappropriate steps. Step D: Present the care of the baby after resuscitation.</p> <p>Activity 6: Interactive Lecture/Demonstration/ Step A: Review all the steps of resuscitation through the presentation of the resuscitation algorithm and the learning checklist on resuscitation. Step B: Clarify all doubts/answer all questions. Step C: Demonstrate the steps of resuscitation on a mannequin. Ask a co-facilitator to read each step from the checklist while you perform the demonstration. Ask the participants to follow with their checklists. Step D: Encourage and answer questions. Step E: Divide the participants into groups based on the number of available mannequins and facilitators. The facilitators can give demonstrations in their groups. Subsequently each participant demonstrates the steps in front of the group facilitator and other participants.</p> <p>Review the objectives of the session.</p> <p>Ask participants to carry out the exercises in the Participant's Notebook during their free time or during the practical clinical training.</p>
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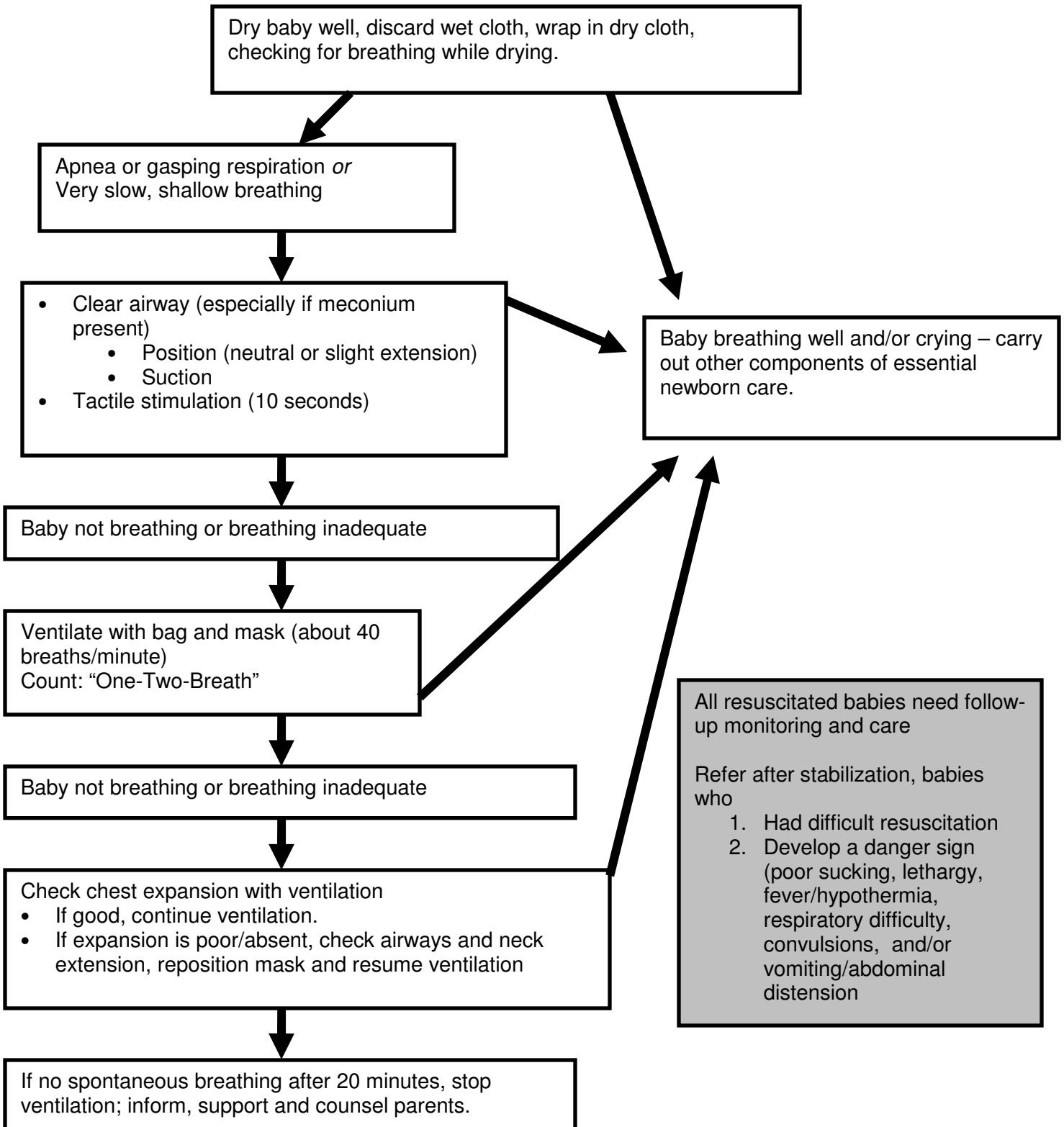
	<p>Inform the participants that they:</p> <ul style="list-style-type: none">• Should practice on the mannequin when they have spare time and in the evenings.• Need to not only carry out the different steps correctly, but also in a timely manner, as the baby has to be revived quickly.• May train in pairs so that one practices and the other one assists and uses the checklist for evaluation.• Will be evaluated and will be required to carry out at least 80% of the steps, preferably before starting the practical sessions but definitely before the end of the course.• May not have the opportunity to practice resuscitation on a baby with birth asphyxia as there may not always be cases during the period of practical clinical training. They will therefore be re-evaluated on the mannequin. In addition, whenever there is a case of birth asphyxia, where feasible participants should be called together to at least observe how it is managed.
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SUMMARY: The Key Steps of Training on Neonatal Resuscitation

1.	During the slide presentation, encourage active participation through brainstorming and group work on the topic.
2.	During the presentation many questions will be raised about the reasons not to use the Apgar score, cardiac massage, and medications such as epinephrine. All doubts must be resolved so that participants can focus on the different tasks that will be shown.
3.	In the demonstration, perform the different tasks one by one as described in the learning checklist. Take time to resolve doubts.
4.	Organize group sessions during which co-facilitators can repeat the demonstrations and when each participant can also demonstrate the steps while another participant reads the task from the checklist. Be sure: <ul style="list-style-type: none">• To inform the participants that they need to not only carry out the different steps correctly, but also in a timely manner, as the baby has to be revived quickly.• To suggest that the participants may train in pairs so that one practices and the other one assists and uses the checklist for evaluation.
5.	The mannequin and the accessories should be left in a secure place to allow the participants to continue to practice when they have free time, as in the evenings.
6.	Inform the participants that the evaluation may start as soon as they are ready and that they should aim to carry out at least 80% of the steps, preferably before starting the practical sessions and definitely before the end of the course. Spend additional time with those who are not able to achieve the goal.
7.	Evaluate participants on the mannequin. It is unlikely that in the short period of training there will be adequate numbers of cases of birth asphyxia to allow practice at the clinical site.
8.	During the practical clinical training period, whenever there is a case of birth asphyxia, where feasible, participants at the site should be called to observe how the case is managed.



USAID/BASICS: ALGORITHM FOR RESUCITATION FOR BIRTH ASPHYIA



Integration of AMTSL and ENC

Keep required items for the mother and baby close by, load oxytocin in syringe.
Inform the woman what is being planned in a way she can understand.

Receive and dry the baby, discard wet linen.

Baby cries well

Place the baby on the mother's abdomen; cover with a dry cloth.

Inform the mother about her baby and AMTSL; administer uterotonic after checking for a second baby.

Clamp cord when pulsations stop/2-3 minutes after birth. Place the baby on the mother's chest and keep the baby warm.

Apply controlled cord traction + countertraction; perform uterine massage.

Cry not heard

Place the baby on the mother's abdomen; cover the baby with a dry cloth.

Breathing well

Inform the mother about her baby and AMTSL; administer uterotonic after checking for a second baby.

Clamp cord when pulsations stop/2-3 mins. after birth. Place the baby on the mother's chest and keep warm.

Apply controlled cord traction + countertraction; perform uterine massage.

**Not breathing/
gasp**

Cut the cord; resuscitate the baby. If possible, administer uterotonic after checking for a second baby.

Depending on the level of resuscitation efforts needed and whether an assistant is present, deliver placenta by maternal effort or controlled cord traction.

Monitor the woman and baby closely.
Implement ENC at birth: eye prophylaxis; cord care; warmth (skin-to-skin); breastfeeding.
Continue routine care for the woman and her baby.



Individual Learning Activities

1. True or false: Only specialized providers should perform basic resuscitation of the newborn.

Answer: False

2. True or false: Basic resuscitation of the newborn can be performed at all levels of the healthcare structure.

Answer: True

3. List the necessary minimal equipment and supplies needed for resuscitating a newborn.

Answer: It is mandatory to ascertain every morning, at the beginning of every shift, and before each delivery that the following equipment/supplies are available, in working order, sterile/clean, and ready to be used.

- **A heat and light source**
- **A table for resuscitation with a mattress with a clean washable surface covered with a clean, preferably sterile cloth. This could be part of the warming table.**
- **3-5 pieces of clean, preferably sterile cloth to dry and wrap the baby, including the head (cap/bonnet, where available), and a washable blanket or several layers of cloth, where required**
- **Sterile gauzes/pieces of cloth**
- **Disposable sterile (preferable)/high-level disinfected gloves**
- **Suction equipment with suction tubes/catheters**
- **Self-inflating resuscitator bag (500 mL) and masks (sizes 1 and 0)**
- **A stethoscope**
- **An oxygen source (if available)**
- **A wall clock with a second hand**
- **A wall thermometer**
- **A clinical thermometer to record the axillary temperature of the baby**
- **Disposable syringes (1ml, 2ml, 10ml)**
- **Vitamin K 1**

4. List maternal factors associated with neonatal asphyxia.

Answer: Maternal causes for birth asphyxia include problems such as:

- **Eclampsia**
- **Bleeding (e.g., placenta previa/abruption)**
- **Fever**
- **Maternal sedation/anesthesia**
- **Abnormal presentations**
- **Prolonged/difficult labor**
- **Infections such as malaria, syphilis, tuberculosis, and HIV/AIDS**

5. List fetal factors associated with neonatal asphyxia.

Answer: Factors in the baby include problems such as:

- **Cord prolapse/knot**

- **Thick meconium in the amniotic fluid (This may be due to fetal distress, but if it is aspirated into the lungs, this may perpetuate asphyxia after birth.)**
- **Prematurity/IUGR**
- **Post-maturity**
- **Multiple births**
- **Selected congenital malformations**

6. True or false: Supplemental oxygen is always necessary for the resuscitation of the newborn.
Answer: False

7. **Case study:** A male baby was born after a prolonged second stage of labor. You are the only provider, without anyone to assist you. Your health center is equipped with mechanical suction and bag and mask. You place the baby on the mother's abdomen while you cut the cord. The baby is floppy and has no spontaneous breathing. List the key steps of management at this stage.

Answer:

- **Dry and stimulate the baby.**
- **Maintain the body temperature.**
- **Clear the upper airways.**
- **Ventilate the baby with the resuscitator bag and mask.**

8. What care do you provide the baby after resuscitation?

Answer:

- **Prevent hypothermia. Keep the baby warm and dry and, if feasible, in skin-to-skin contact with the mother, and cover his/her body and head.**
- **Help the mother start breastfeeding as soon as the baby is stable.**
- **After resuscitation, reassess the baby periodically every 15 minutes for 2 hours and every 30 minutes for 6 hours for breathing, color, and activity. Continue assessment, including evaluation of feeding, every 3 hours for the next 48-72 hours.**
- **If any danger sign is noted, transfer the infant to a hospital with the ability to care for sick newborns.**
- **If the baby improves, commence routine essential newborn care, including breastfeeding.**
- **Record key findings and treatment provided in the partogram, delivery room register, and maternal/baby records as recommended by MOH guidelines.**
- **Make sure that all equipment is decontaminated, cleaned, and sterilized/subjected to high-level disinfection as appropriate, and all disposable supplies are replenished and kept ready for the next delivery.**
- **Explain what happened to the mother and family and what additional care is required at the facility and subsequently at home.**



SESSION 9: Basic Systematic Examination of the Newborn at Peripheral Centers

Summary

During the session, the participants will learn the elements of the basic examination of the newborn applicable at peripheral centers.

Objectives

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

- describe how to prepare for the basic examination of the newborn.
- describe how to prevent hypothermia during the examination.
- describe the key steps of the basic examination of the newborn.
- demonstrate examining the newborn on a doll with the help of a learning checklist.

Note that this session is closely linked to session 10 on postnatal visits/care.

Materials/Resources Needed

- LCD projector/computer
- Arrangements for microphones, if feasible
- Power point and hard copies of the presentation
- Markers/flipchart/easel
- Soap, towels, small bath tub, and clean water
- Gloves
- A clock or watch with a second hand or a timer for counting respiration
- A doll for the demonstration of routine care (Use the mannequin only for resuscitation so that it can be maintained in a good condition, as it is more costly than an ordinary doll.)
- A clinical thermometer
- A wall thermometer
- A stethoscope
- Weighing scales for the baby
- An examination table with a source of warmth where feasible

Arrange items on a table to assist in demonstrating the steps of the exam.

Duration: 3 hours

Facilitation Techniques

- Brainstorming
- Interactive presentation
- Group discussion
- Review of the checklist
- Demonstration (plenary) using the checklist
- Demonstration in smaller groups with facilitators
- Demonstration by individual participants

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>There is a need at peripheral centers for a simplified assessment of the baby, prioritizing elements of particular public health importance.</p> <p>Times of basic examination:</p> <ul style="list-style-type: none"> • As soon as possible after birth when the newborn is stable and warm • At least once a day as long as the infant is in the peripheral health center/or more frequently if indicated • Just before discharge • During the postnatal checkup visits <p>Preparation for examination and taking history:</p> <ul style="list-style-type: none"> • Install the mother and baby comfortably in a draft free location and explain what you are planning to do. Encourage the mother to ask questions. • Prepare the necessary equipment and verify that they are functional: a thermometer, a watch, a measuring tape, a weight scale. • Consult the mother-infant records, especially for factors that could have consequences for the infant, such as maternal fever, infections, and problems at delivery. • Ask for the presence of danger signs, about feeding, stools, and urine. <p>Principles of examination:</p> <ul style="list-style-type: none"> • Respect practices of prevention of infection, such as proper hand washing. • Place the newborn on a clean surface and examine the infant in front of the observing mother or in her arms. • Keep the baby from getting cold during the exam. 	<p>Warm-up or energizer</p> <p>Read objectives for the session.</p> <p>Activity 1. Brainstorming Step A: Ask participants to list the times when they must carry out the systematic examination of the newborn. Step B: Facilitate discussion and list/revise the correct responses. Step C: Brainstorm key elements of the systematic examination of the baby at peripheral centers. Step D: Review the key components of the basic systematic examination.</p> <p>Activity 2. Group Discussion Step A: Present/review the danger signs to be asked for in the history and adaptations to be made in examining the newborn. Step B: Divide participants into four groups to discuss identifying danger signs as follows: Group 1: Poor sucking and lethargy Group 2: Fever and hypothermia Group 3: Respiratory difficulty and convulsions Group 4: Persistent vomiting and abdominal distension and severe umbilical infection <i>Circulate and facilitate the discussions.</i> <i>Allow 15 minutes for discussion and 20 for a plenary presentation.</i> Step D: Review/present the key danger signs and how to identify them. Step E: Present the remaining components of the examination.</p>



<p>Steps of the examination:</p> <ul style="list-style-type: none"> • Ask for signs of danger. • Ask for other problems. • Evaluate for danger signs (major infections). • Evaluate for jaundice. • Refer the baby even if only one danger sign is discovered. • Evaluate for minor infections. • Evaluate breastfeeding. • Weigh the infant. • Treat/prescribe treatment for minor infections. • Document observations and care of the baby in appropriate charts/cards/registers. <p>Post-examination tasks:</p> <ul style="list-style-type: none"> • Inform the mother of the results of the examination and answer the mother's questions. • If the examination is normal, schedule the next visit. For an abnormal examination, have a care plan. • Document in writing the findings of the physical examination. • Provide necessary care, such as immunizations, if feasible, and treatment for problems/infections, including referral. • Take the opportunity to counsel the mother on relevant aspects of care at home. (See details in session 10 on postnatal care.) • Praise the mother for the care she is already providing to her baby. 	<p>Activity 3. Demonstration</p> <p>Step A: Review the key steps of a systematic examination with the participants. Ask the participants to follow along with the relevant learning checklist. Answer participant's questions, if any.</p> <p>Step B: Demonstrate the examination of the newborn on the doll. Ask the participants to follow along with the checklist. Answer all questions.</p> <p>Step C: Divide the participants into small groups, the number depending on the number of facilitators. Provide each group with a doll. In each team one person demonstrates the examination while the others watch. Each team must have a facilitator.</p> <p>Step D: At the plenary session, summarize activities and resolve doubts.</p> <p>Review the objectives of the session.</p>
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Individual Learning Activities

1. List the key steps of the basic systematic examination of the newborn at the peripheral center.

Answer: The key steps of the basic systematic examination of the newborn at the peripheral center are noted in the table below:

Key Steps in Examining a Newborn at a Peripheral Center
<ol style="list-style-type: none">1. Ask the mother for danger signs.2. Ask about other problems.3. Evaluate for danger signs that are features of major infections. Even if there is only one danger sign, institute steps to transfer the baby to an appropriate referral center after administration of the first dose of antibiotics.4. Evaluate for jaundice.5. Evaluate for minor infections.6. Evaluate feeding.7. Weigh the baby.8. Prescribe treatment for minor infections.9. Document the findings and care provided on cards/chart/record books.10. Take advantage of this contact to provide care such as the necessary vaccines.11. Counsel the mother/family members on basic care at home.



SESSION 10: Postnatal Care of the Newborn, at the Facility and during Postnatal Visits

Summary

During this session, the participants will learn the importance of early postnatal care and the key components of evaluation and care of the baby.

Objectives

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

- describe the importance of providing care in the early postnatal period and related challenges and solutions.
- describe the evaluation and care of the newborn in the postnatal period.
- describe how to promote quality early postnatal assessment and care in the first week of life, especially the crucial first 2-3 days.
- provide the mother/family counseling on:
 - preventive care
 - identifying danger signs
 - appropriate care seeking

Materials/Resources Needed

- LCD projector/computer
- Arrangements for microphones if feasible
- Power point and hard copies of the presentation
- Markers/flipchart/easel
- Soap, towels, small basin, and clean water
- Gloves
- A clinical thermometer
- Scissors, scalpel, and ties
- Pieces of cotton and gauze
- A doll for the demonstration of routine care (Use the mannequin only for resuscitation so that it can be maintained in a good condition, as it is more costly than an ordinary doll.)
- A clock or watch with a second hand or a timer for counting respiration
- Counseling cards for role plays on counseling (See USAID/BASICS/POPPHI tools for training community health workers/volunteers.)

Arrange items on a table and have 2-3 chairs to assist in demonstrating the steps of postnatal evaluation and care and to use for counseling role plays.

Duration: 2 hours 30 minutes

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Group discussion
- Role plays

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Description of the postnatal period: The postnatal period is a critical period; 75% of neonatal deaths take place in the first week, 50% within the first 24 hours.</p> <p>Challenges: Providing care in the early postnatal period has special challenges related to strong socio-cultural factors and the absence of adequate quality services for care. These factors have to be taken into consideration when developing strategies to cover this critical period and provide the much needed care.</p> <p>Components of postnatal care:</p> <ul style="list-style-type: none"> • Implement tasks at the appropriate times: <ul style="list-style-type: none"> ○ after birth before the mother and baby leave the delivery room ○ every day during the stay at the peripheral facility ○ at discharge from the facility ○ at the postnatal visits • Carry out a basic systematic examination of the baby. • Refer for danger signs. • Treat minor infections. • Provide care, including immunization. • Document findings/care in the baby card/register. • Promote continued follow-up and schedule the next appointment. • Counsel the mother/family on: <ul style="list-style-type: none"> ○ breastfeeding ○ maintaining body temperature 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/Interactive Lecture Step A: Present the definition of the postnatal period and the components of this period. Step B: Ask the participants to describe when is the highest risk of dying for a baby in the neonatal period. Step C: Highlight the importance of early postnatal visits.</p> <p>Activity 2: Brainstorming/Interactive Lecture Step A: Divide the participants into three groups and ask them to discuss the challenges/problems in the postnatal period and possible solutions, facilitated by trainers. Allow 20 minutes for group discussion and 20 minutes for presentations and plenary discussion. Step B: Present the slides to summarize challenges and possible solutions.</p> <p>Activity 3: Brainstorming/Interactive Lecture Step A: Present the components of postnatal care and the preparation required. Step B: Brainstorm the key steps in the provision of postnatal care. Step C: Summarize and present key aspects of postnatal care.</p> <p>Activity 4: Role Play/Interactive Lecture Step A: Ask three volunteers to enact a role play in which a health worker counsels a mother and the father before the mother and baby are discharged, two or three days after the birth of the baby.</p>



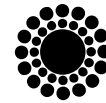
<ul style="list-style-type: none">○ clean cord care○ clean practices/prevention of infection○ danger signs○ plan for care in case of complications● Provide special care and counseling for babies of HIV-positive mothers	<p>Step B: Ask the other participants to observe the role play closely and then provide comments and make suggestions to improve counseling.</p> <p>Step C: The facilitator then reviews the key points related to counseling of the mother/family before discharge.</p> <p>Review the objectives of the session.</p>
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Individual Learning Activities

1. Outline the options for the postnatal visits for the newborn baby with the mother.

The suggested timings for the postnatal visits/contacts, depending on the place of delivery and the time of discharge in facility births, are summarized in the table below.

Suggested Timings of Postnatal Visits			
Ideally postnatal visits should be provided by a skilled attendant who is usually at the facility level, linked with a community health worker/volunteer (CHW). If access to the facility is extremely difficult, have the postnatal visit through the CHW.			
Scenario	1st postnatal visit	2nd postnatal visit	3rd postnatal visit
Facility delivery, normal baby, discharge within 24 hrs	In the first 2-3 days, ideally 2 days after birth	5-7 days (may coincide with special events)	4-6 weeks
Facility delivery, normal baby discharge day 2 or 3	4-7 days	Second week	4-6 weeks
Delivery by Cesarean section, normal baby, discharged after a week or, in some cases, earlier.	2 weeks	4-6 weeks	
Home delivery	Ideally on day of birth and within 48-72 hrs.; If not feasible, at least one visit within 48 hrs	5-7 days (may be adjusted to accommodate special family events)	4-6 weeks
LBW babies should ideally stay at least 3-7 days at facility. Refer very small babies and those with problems to higher center.	Visit every week until weight gain adequate, e.g., 2000-2500 gram and baby doing well		
The number and timing of home visits by the CHW can vary based on feasibility and the recommendations of the program implementing agency/MOH and on existing problems, but advocacy should be carried out for coverage of the first week, especially the first 2 – 3 days.			



Care of the Newborn During the 4-6 Weeks After Birth (Use the learning checklist on the postnatal visit)							
From birth to six weeks							
Action	At birth	Before mother and baby leave the delivery room	At least once a day during stay in postnatal ward	At discharge	First postnatal visit	Second postnatal visit	Third postnatal visit at 4-6 weeks
Provide care/ counseling	Essential Newborn Care						
Observe/look for	Brief examination, look for danger signs		Full basic systematic examination				
Provide counseling	Targeted counseling, i.e., breastfeeding, protection against hypothermia, danger signs.		Full counseling				
Give specific care	Eye care Cord care Vitamin K Identification band Breastfeeding		BCG, OPV, and hepatitis B any time in the postpartum period according to the recommendations of the Ministry of Health. Care for the baby of an HIV positive mother including ARV as soon as possible within the first three days.				DPT, oral polio, and BCG if not administered earlier and cotrimoxazole for babies of HIV positive mothers
Weight		weight		weight	weight	weight	weight
Document information in mother/ baby card registers	X	X	X	X	X	X	X

SUMMARY: Postnatal Evaluation and Care

<p>1. Implement tasks at the appropriate time. After birth, evaluate and provide care:</p> <ul style="list-style-type: none">• Before transfer out of the delivery room.• At least once a day during the stay of the baby at the facility (more frequently for low birth weight babies and if a problem needing observation was noted).• At discharge.• During postnatal visits.
<p>2. Carry out a basic systematic examination of the baby (see session 9 for details).</p>
<p>3. Provide relevant care:</p> <ul style="list-style-type: none">• If a danger sign exists (even if only one), give the first dose of antibiotics and refer the baby.• Administer/prescribe treatment for minor infections.• Give immunizations: OPV, BCG, hepatitis B (based on recommendations of the Ministry of Health) if this was not already done.
<p>4. Document findings/care in mother/baby card/register.</p>
<p>5. Promote continued follow-up and schedule the next appointment.</p>
<p>6. Counsel the mother/family on basic preventive care at home, identifying danger signs and appropriate care seeking.</p>
<p>7. Where the mother is HIV-positive, ensure appropriate care for the mother and baby, including ARV and later cotrimoxazole, between 4 – 6 weeks.</p>
<p>8. Where feasible and appropriate, put the family in contact with an available trained community health worker.</p>



SESSION 11: Diagnosing and Treating Breastfeeding Problems

Summary

During this session, participants will learn how to manage breast conditions that are associated with breastfeeding problems.

Objectives

By the end of this session, participants will be able to:

- describe the prevention and treatment of engorged breasts, mastitis or breast abscess, and related counseling of women.
- describe the prevention and treatment of sore and cracked nipples and related counseling of women.
- explain management of inverted nipples.
- describe and demonstrate how to express milk and feed it to the baby.

Materials/Resources Needed

- LCD projector
- Computer
- Power point and hard copies of the presentation
- Arrangements for microphone where feasible
- Markers
- Flipchart, flipchart stand
- Syringe

Duration: 1 hour

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Case studies
- Demonstration

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Breastfeeding problems linked to the mother or the newborn:</p> <ul style="list-style-type: none"> • Problems linked to the newborn include prematurity and malformations such as cleft lip and palate. • Breast conditions that may lead to breastfeeding problems include sore or cracked nipples, engorged breasts, mastitis or breast abscess, and retracted nipples. <p>Signs and symptoms of breast problems:</p> <ul style="list-style-type: none"> • Engorgement: Breast pain and tenderness 3-5 days after delivery; hard enlarged breasts; both breasts affected. • Mastitis: Breast pain and tenderness, reddened, wedge-shaped area on breast, 3-4 weeks after delivery; inflammation preceded by engorgement, usually only one breast affected. • Breast abscess: Firm, very tender breast, overlying erythema, fluctuant swelling in breast, draining pus. <p>Prevention of sore nipples</p> <ul style="list-style-type: none"> • Make sure the baby is properly attached to the breast. • Counsel the mother to keep her breasts clean and dry and to only use soap once per day when taking her bath. If she uses soap more often than once daily, she may get cracked nipples. • Mothers can find positions that are comfortable and help them feel relaxed, such as the underarm position, holding the baby with the arm opposite the breast, lying on her side. <p>General management for mastitis, engorgement, and breast abscess:</p> <ul style="list-style-type: none"> • Encourage the woman to breastfeed more frequently, using both breasts at each feeding, although it may need to be discontinued temporarily on the affected side for mastitis and breast abscess. In this case, advise the mother to express out the milk every 3-4 hours. • Show the woman how to hold the baby and ensure proper attachment at the breast. • Re-evaluate after two breastfeeds (or after one day). • Give paracetamol 500 mg by mouth as needed. 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/Interactive Lecture/Case Studies Step A: Ask participants to list breastfeeding problems that are linked to the baby. Write their answers on a flipchart and complete their list if necessary. Step B: Ask participants to list breastfeeding problems that are linked to the mother or are due to breast conditions. Write their answers on a flipchart and complete their list if necessary.</p> <p>Activity 2: Case Studies/Interactive Lecture Step A: Ask participants to find the case studies in the Participant's Notebook. Step B: Ask a volunteer to read the signs and symptoms for one woman at a time and then ask someone to diagnose the problem. Step C: If the woman in the case study has a breast condition, follow the case study with a brief interactive lecture on how to prevent and manage the condition.</p> <p>Activity 3: Demonstration Step A: Explain how to express breast milk and then do a demonstration.</p> <p>Activity 4: Interactive Lecture/Demonstration Step A: Facilitate an interactive lecture on how to manage inverted nipples. Step B: Do a demonstration of how to use a syringe to prepare inverted nipples for breastfeeding.</p> <p>Review the objectives of the session.</p>



SESSION PLAN	
Themes	Facilitation Techniques
<ul style="list-style-type: none"> • Apply a warm compress to the breasts just before breastfeeding, or encourage the woman to take a warm shower. • Apply a cold compress to the breasts between feedings to reduce swelling and pain. • If the woman has mastitis or a breast abscess and there is no improvement in her condition after implementing the above measures, teach the woman how to express milk from the affected breast. She can continue feeding her baby on the breast that is not affected. <p>Expression of breast milk:</p> <ul style="list-style-type: none"> • Manual expression is more suitable for expressing milk, especially in low-resource settings where the cost of pumps and difficulties in their sterilization present challenges. • It is easier to express milk when the breasts are soft; it is much more difficult when the breasts are engorged or sore. • A woman should always express her own milk. Breasts are easily injured when another person tries to express the woman's milk. If you need to touch the woman's breast, do so very gently and only after asking her permission and washing your hands. 	

Individual Learning Activities

Read the list of findings for each of the following women, who are new mothers and who came to you with fever. Based on the findings, write the most likely diagnosis for each woman. Choose the diagnosis from the following list (not all the diagnoses will be used).

Breast abscess, breast engorgement, malaria, mastitis, pneumonia, urinary tract infection

1. Ms. Rosa:

- Firm, very tender breast
- Overlying reddened skin
- Fluctuant swelling in breast
- Draining pus

Ms. Rosa probably has a breast abscess.

2. Ms. Anita:
- Fever
 - Painful urination
 - Increased frequency and urgency of urination
 - Lower back pain
 - Suprapubic pain
 - Abdominal pain

Ms. Anita probably has a urinary tract infection.

3. Ms. Bobo:
- 3-4 weeks after delivery
 - Headache
 - Breast pain and tenderness
 - Reddened, wedge-shaped area on breast
 - Inflammation preceded by engorgement
 - Only one breast affected

Ms. Bobo probably has mastitis.

4. Ms. Mohini:
- Fever
 - Chills
 - Sweating
 - Headache
 - Enlarged/tender spleen

Ms. Mohini probably has malaria.

5. Ms. Mpo:
- Breast pain and tenderness
 - 3-5 days after delivery
 - Hard and enlarged breasts
 - Both breasts affected

Ms. Mpo probably has engorgement.

Case Study⁷

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.

⁷ http://www.reproline.jhu.edu/english/2mnh/2mcpc/5_Learning_Pkg/C_14_Fever_after_childbirth/14-CS-14.2.htm
(accessed October 13, 2008)



Ms. Kabongo is 17 years old. She gave birth to her first newborn three weeks ago at the health center. Her birth was uncomplicated and the newborn was healthy and of normal birth weight. You last saw Ms. Kabongo two 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

6. What will you include in your assessment of Ms. Kabongo and why?
 - ***Ms. Kabongo should be greeted respectfully and with kindness.***
 - ***She should be listened to carefully and told what is going to be done in a way she can understand. In addition, her questions should be answered in a calm and reassuring manner.***
 - ***A rapid assessment should be done to determine the degree of illness. Ms. Kabongo's temperature, pulse, respiration rate, and blood pressure should be checked. In addition, she should be asked how breastfeeding is going, whether she has had any problems, how many times in a 24-hour period the newborn is feeding, whether she has fed the newborn anything other than breast milk, and whether she has cracked or sore nipples.***
7. What particular aspects of Ms. Kabongo's physical examination will help you make a diagnosis or identify her problems/needs and why?
 - ***Ms. Kabongo's breasts should be checked for pain and tenderness, swelling and inflammation, and cracked nipples.***
8. What screening procedures/laboratory tests will you include (if available) in your assessment of Ms. Kabongo and why?
 - ***None at this stage.***

DIAGNOSIS: Identification of Problems/Needs

You have completed your assessment of Ms. Kabongo and your main findings include the following:

- Her temperature is 38 °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.
 - Ms. Kabongo 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. Ms Kabongo had breastfed the newborn less than an hour before you examined her.
9. Based on these findings, what is Ms. Kabongo's diagnosis and why?
 - ***Ms Kabongo's symptoms and signs (e.g., fever, breast pain and tenderness, and a reddened, wedge-shaped area on one breast) are consistent with mastitis.***

CARE PROVISION: Planning and Intervention

10. Based on your diagnosis, what is your plan of care for Ms. Kabongo and why?

- **Ms. Kabongo should be treated with one of the following antibiotics: cloxacillin 500 mg by mouth 4 times/day for 10 days; or erythromycin 250 mg by mouth 3 times/day for 10 days.**
- **Her breastfeeding technique should be observed for correct positioning (i.e., the newborn's head and body are straight, well supported, and held close to the mother's body, with the newborn facing the breast with nose opposite the nipple) and attachment (i.e., more areola visible above than below the mouth, mouth open wide, lower lip turned outward, chin touching the breast).**
- **Ms. Kabongo should be provided reassurance and encouragement to continue breastfeeding, at least 8 times in a 24-hour period. She should also be encouraged to stop giving her newborn water and counseled about exclusive breastfeeding.**
- **She can continue breastfeeding even from the affected breast if possible and if the baby will accept the milk. Sometimes, perhaps due to the change in taste because of the infection, babies may not accept milk from the infected breast. If such is the case, the mother should be advised to continue breastfeeding on the normal breast and supplement with another milk/formula until the baby accepts the breastfeeding. Counsel the mother on safe methods of giving other milks and ask her to express and discard milk from the affected breast until it is better and the baby accepts direct breastfeeding for about 24-48 hours.**
- **A breast binder or brassiere should be worn to support her breasts and cold compresses should be applied between expressions/feedings to reduce the swelling and pain.**
- **Pacacetamol 500 mg by mouth should be given, as needed.**
- **Ms. Kabongo should be asked to return for follow-up in three days.**

EVALUATION

Three days later Ms. Kabongo reports that she is feeling better and has stopped taking her medication. Her temperature is 37.6°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 6 times in 24 hours. She also reports that the newborn seems to be attaching better to the breast.

1. Based on these findings, what is your continuing plan of care for Ms. Kabongo and why?
 - **Ms. Kabongo should be counseled about the importance of completing the full 10-day course of antibiotics (3 days of antibiotic therapy is insufficient to resolve infection).**
 - **Her breastfeeding technique should be observed again to check positioning and attachment, and further reassurance and encouragement should be provided to Ms. Kabongo to continue breastfeeding at least 8 times in 24 hours.**
 - **Ms. Kabongo should be followed up on every 2-3 days to ensure that she complies with antibiotic therapy, that her symptoms and signs resolve, and to provide continuing reassurance and encouragement for breastfeeding.**



SESSION 12: Care of the Low Birth Weight Baby, Including Kangaroo Mother Care

Summary

During this session, the participants will learn how to manage the low birth weight (LBW) baby at a peripheral center and counseling for care at home.

Objectives

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

- Define the low birth weight (LBW) baby.
- Describe factors associated with LBW and some measures for preventing low birth weight.
- Describe complications noted in LBW babies.
- Describe evaluation of LBW babies to identify those that may be managed locally and those that need to be transferred to a referral center.
- Describe care of the LBW baby.
- Describe kangaroo mother care (KMC) and its advantages.
- Describe the technique of implementing KMC.
- Describe counseling for the mother/family.

Materials/Resources Need

- LCD projector
- Computer
- Power point and hard copies of the presentation
- Arrangements for microphone if feasible
- Markers/flipchart/easel
- A doll to demonstrate routine care and KMC (Use the mannequin only for resuscitation so that it can be maintained in a good condition, as it is more costly than an ordinary doll.)
- A clock or a watch with a second hand or a timer for counting respiration
- A linen/lycra band to demonstrate the Kangaroo method

Duration: 2 hours

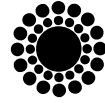
Facilitation Techniques

- Brainstorming
- Interactive lecture
- Demonstration

Session plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Background Definition and characteristics of low birth weight</p> <p>Babies may be premature and/or have suffered intrauterine growth retardation.</p> <p>Factors associated with LBW and prematurity and some preventive aspects.</p> <p>Complications/problems commonly seen in LBW babies:</p> <ul style="list-style-type: none"> • Hypothermia • Respiratory problems • Feeding difficulties • Infections • Bleeding • Jaundice <p>Basic evaluation of the LBW baby to identify babies that may be managed locally and those who need to be transferred to a referral center.</p> <p>Care for the LBW baby: Essential newborn care but with extra vigilance and extra support.</p> <p>Kangaroo mother care method:</p> <ul style="list-style-type: none"> • Definition • Advantages • Preparation • Techniques • Counseling • Demonstration <p>Algorithm for care of LBW newborns</p>	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Interactive Lecture Step A: Present the definition of the LBW baby and prematurity. Step B: Discuss how to evaluate the LBW baby at peripheral centers to determine which babies need to be referred. Step C: Present factors associated with prematurity and some strategies for prevention.</p> <p>Activity 2: Brainstorming/Interactive Lecture Step A: Brainstorm possible complications of LBW in small groups. Step B: Review the results and complete the participants' lists.</p> <p>Activity 3: Interactive Lecture/Brainstorming Step A: Present the key points to be evaluated at peripheral centers. Step B: Ask the participants to brainstorm the key points of managing LBW newborns.</p> <p>Activity 4: Brainstorming/Interactive Lecture Step A: Ask participants to define kangaroo mother care (KMC). Step B: Present the definition. Step C: Brainstorm the advantages of KMC in small groups. Step D: Review the results and present the main advantages of KMC. Step E: Describe KMC, including preparation, techniques, and counseling.</p> <p>Activity 6: Demonstration Step A: Demonstrate how to assist a mother with implementing kangaroo mother care. Step B: In small groups with facilitators, have participants demonstrate assisting a mother to carry out KMC.</p> <p>Activity 7: Interactive Lecture Step A: Review care of LBW newborns using the algorithm.</p> <p>Review the objectives of the session.</p>



Individual Learning Activities

1. How do you define a low birth weight baby?

The low birth weight baby is one that weighs less than 2500 grams at birth.

2. Which types of low birth weight babies can be managed at the peripheral centers/home?

Ideally, all low birth weight babies should be evaluated and cared for by a competent skilled attendant. It may, however, not be practical to refer all low birth weight babies to a higher center. Thus, those babies who can be looked after at the place of birth are those who:

- ***Maintain body temperature with minimal help, such as additional clothing or skin-to-skin contact.***
- ***Are able to breastfeed or to drink expressed breast milk with a cup or a spoon.***
- ***Have no problems or danger signs.***

3. What are the advantages of kangaroo mother care?

The main advantages for the baby are:

- ***It is a low cost method that is a good alternative to conventional care of preterm/LBW babies in low resource countries.***
- ***The outcome has been found to be similar to the use of the incubator, which is expensive and more difficult to maintain.***
- ***The baby is comfortable in this position and is quieter, crying less frequently than in incubators.***
- ***The vertical position decreases the risk of aspiration, improves cardio-respiratory functions, and decreases apnea.***
- ***Closeness to the breast favors frequent sucking that prolongs the duration of breastfeeding.***
- ***The hospital stay is reduced, decreasing the risk of nosocomial infections***
- ***Babies gain weight quicker.***

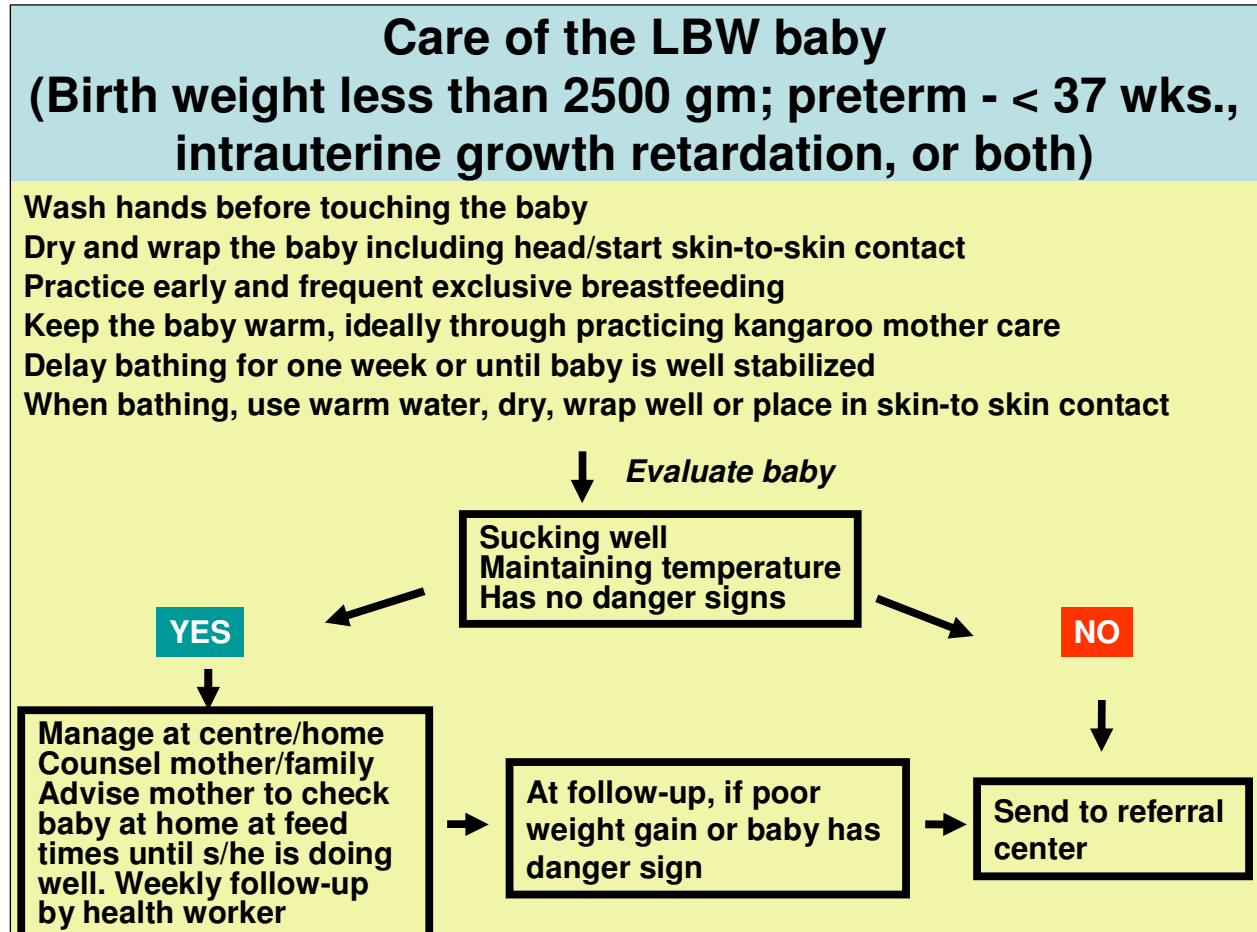
The main advantages for the mother are:

- ***KMC helps to empower the mother as she plays the main role by providing warmth to her baby, protection against infection, and nutrition via breastfeeding.***
- ***An additional benefit is the promotion of mother-infant bonding and decreased rejection of preterm babies.***
- ***The method involves other family members, reinforcing family interaction.***

4. Summarize the approach to the care of the LBW infant in the form of an algorithm.

The approach to care of the LBW infant is summarized in the algorithm noted below:

Care of the LBW Baby





SESSION 13: Treatment of Infections in the Newborn

Summary

During this session, participants will learn the basic steps of how to identify and manage major and minor infections at peripheral health centers. Major infections are a leading cause of neonatal mortality.

Objectives

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

- The special features related to newborn infections and list the risk factors.
- The main types of infections (major and minor).
- The danger signs associated with major infections (sepsis).
- Management of major and minor infections.
- The appropriate method of referral where needed.

Materials/Resources Needed

- LCD projector
- Computer
- Power point and hard copies of the presentation
- Arrangements for a microphone if feasible
- Markers/flipchart/easel
- Soap, towels, small basin, and clean water
- Gloves
- Pieces of cotton and gauze
- A doll to demonstrate routine care (Use the mannequin only for resuscitation so that it can be maintained in a good condition, as it is more costly than an ordinary doll.)
- A clock or watch with a second hand or a timer for counting respiration
- Items for treatment: syringes (1 and 2 mL), cotton swabs, alcohol, drugs such as gentamycin, penicillin, ampicillin, amoxicillin, mycostatin, gentian violet, and tetracycline eye drops

Duration: 4 hours 30 minutes

Facilitation Techniques

- Brainstorming
- Interactive lecture
- Case studies

Session Plan

See the table below.

SESSION PLAN	
Themes	Facilitation Techniques
<p>Infections are a major cause of death in the neonatal period.</p> <p>Specific features of neonatal infection:</p> <ul style="list-style-type: none"> • Immaturity of the immune system • No specific signs • Rapid spread • High mortality • Need for early management <p>Early and late neonatal infections</p> <ul style="list-style-type: none"> • Definition • Predisposing factors <p>Types of infections: major and minor</p> <p>Danger signs: clinical signs that allow the identification of major neonatal infections. These include the following (the first five are the most important):</p> <ul style="list-style-type: none"> • Poor sucking/not sucking • Lethargy/inactivity • Fever or hypothermia • Respiratory distress/respiratory difficulty • Convulsions • Frequent vomiting/abdominal distention • Severe umbilical infection (surrounding redness, foul smell) <p>Managing the newborn with sepsis at peripheral centers:</p> <ul style="list-style-type: none"> • Giving the first antibiotic doses in the health care center and then transferring the baby to the appropriate center • Key steps for referral • Local management in case of minor infections (thrush, conjunctivitis, skin and minor umbilical infection) 	<p>Warm-up or energizer</p> <p>Read the objectives of the session.</p> <p>Activity 1: Brainstorming/Interactive Lecture Step A: Ask the participants to list the principal causes of neonatal deaths. Highlight the importance of sepsis in newborns and their vulnerability. Step B: Define early and late neonatal infections and present predisposing factors. Step C: Brainstorm factors that can predispose to early- and late-onset infections. Step D: Review/summarize factors predisposing to infections.</p> <p>Activity 2: Brainstorming/Interactive Lecture Step A: Present types of infection in the newborn (focus on major and minor infections). Step B: Ask participants to brainstorm danger signs in the newborn. Step C: List the danger signs without describing them (as that will be covered in the group work noted below).</p> <p>Activity 3: Brainstorming/Interactive Lecture Step A: Divide the participants into four groups. Allocate different danger signs to each group. Ask each group to list the features by which the danger signs can be identified (group discussion 10 minutes, plenary presentation 20 minutes). Step B: Summarize the features of danger signs. Step C: Present the difficulties in identifying the danger signs and the challenges, such as socio-cultural factors and quality of care, that can interfere with treatment.</p> <p>Activity 4: Brainstorming/Interactive Lecture Step A: Present the management of sepsis at the level of peripheral health centers. Step B: Brainstorm what should be written in the referral note. Present/review the correct responses.</p>



	<p>Activity 5: Interactive Lecture Step A: Present the identification and management of minor infections. Step B: Briefly review key steps in preventing infections.</p> <p>Activity 6: Case Studies Step A: Present the case studies and ask participants to answer the questions in small groups. Step B: Review and summarize the answers. Step C: Remind participants to complete exercises in the Participant's Notebook.</p> <p>Review the objectives of the session.</p>
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Individual Learning Activities

Case Study 1

Mrs. Kalonji, age 35, gave birth at the general hospital to her fifth baby eight days ago. Pregnancy was uncomplicated. Because she found pus in the umbilical area, she brought her baby today to the health center.

1. What is the diagnosis?

Localized umbilical infection, as there is only pus discharge without surrounding redness or swelling or a foul smell.

2. What is the care plan for this baby and why?

The recommended care plan for a localized umbilical infection is as follows:

- ***Perform a systematic examination of the newborn and look for danger signs (absent in this baby). Treat as a minor umbilical infection.***
- ***Open the umbilical skin folds and clean the area with a swab/compress soaked in alcohol or an antiseptic solution and apply the solution in the umbilicus after the cleaning.***
- ***Show the mother what you are doing.***
- ***Ask the mother to demonstrate how she would do this.***
- ***Take advantage of the visit to counsel the mother about herself and the baby.***
- ***Explain that she should come back immediately if the baby develops even one danger sign or in two days for the routine evaluation.***

Mrs. Kalonji comes back to clinic two days later. She reports that she gave the treatment as recommended. You observe a diffuse area of redness around the umbilical stump. The baby has a fever.

3. Based on these findings, what is your new care plan for the baby and why?

The new care plan for a major infection should be as follows:

- ***The baby now presents with two danger signs: fever and extended redness around the umbilicus. These indicate that the infection has spread and should be treated as a major infection.***
- ***Administer the first doses of antibiotics.***
- ***Send the baby to the appropriate referral center, following all the guidelines for referral earlier outlined in this session.***

Case Study 2

The baby of Mrs. Mutombo, a 17-year-old primipara, was born after prolonged labor and PROM >24 hours. Mrs. Mutombo was discharged from the health center after one day. She and her baby did not receive any evaluation and counseling. She returns to the health center on day 5 because her baby refuses to suck. Upon examination, the baby is found to be hypothermic and has very poor activity.

1. What is the diagnosis? Why?

Sepsis, because three danger signs are present (refusal to suck, hypothermia, poor activity).

2. What care plan do you propose?

Treat as a major infection:

- ***Stabilize the baby (warm by skin-to-skin-contact).***
- ***Administer first doses of antibiotics.***
- ***Prepare for referral.***
- ***Refer the baby with appropriate advice and a referral note.***
- ***Follow the guidelines for treatment of sepsis and referral presented earlier.***

3. What should have been done after birth for this baby?

- ***The baby had high risk factors for infection: premature rupture of membranes (PROM) > 24 hours and prolonged labor.***
- ***The baby should have received antibiotics (ampicillin and gentamycin).***
- ***The mother and baby should have been kept longer at the center and examined and evaluated carefully 2-3 times a day.***
- ***If even a single danger sign was noted, the baby should have been referred to a higher center.***
- ***In cases where the baby remained normal, active, and taking feeds well, antibiotics should have been continued for at least 3 days, preferably 5 days, as blood tests are not feasible at most peripheral centers.***



PART III: Knowledge Assessments

Pre-Course Questionnaire

Mid-Course Questionnaire

Post-Course Questionnaire

Alternate Post-Course Questionnaire

Knowledge Assessment/Pre-Course Questionnaire

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Session 1: Preventing Infection

1. Which of the following statements about high-level disinfection (HLD) is **true**:
 - A. HLD kills viruses (hepatitis B and C, HCV, HIV), many other germs, and all bacterial endospores.
 - B. HLD is the only acceptable alternative when sterilization is not available.
 - C. One reliable and economic method of HLD is soaking instruments in a chemical disinfectant for 10 minutes.
 - D. An advantage of HLD by boiling is that instruments can be stored for up to two weeks after having been boiled.

2. Hand washing:
 - A. Needs to be done for at least five seconds to be effective.
 - B. Is the most important way to reduce the spread of infection in health care facilities.
 - C. Does not need to be done after a procedure if gloves were worn.
 - D. All of the above
 - E. None of the above

Session 3: Maternal Care to Improve Maternal and Newborn Survival

3. If a pregnant woman suffers from malaria during pregnancy, it could increase the risk of:
 - A. Severe maternal anemia, spontaneous abortion, and stillbirths
 - B. Low birth weight infants
 - C. A and B
 - D. None of the answers is correct.

4. Intermittent preventive treatment and insecticide-treated bednets in areas endemic for malaria may prevent:
 - A. Minor infections in the newborn
 - B. Low birth weight infants
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5. Which of the following should be provided routinely to all women to prevent PPH and ensure its early diagnosis and management?
 - A. Developing a birth-preparedness and complication-readiness plan during pregnancy
 - B. Using the risk factor approach to identify women at high risk of suffering PPH
 - C. Carefully monitoring the woman and fetus using the partograph
 - D. Applying AMTSL at all births



Session 5: Routine Care during the Third Stage of Labor

6. Active management of the third stage of labor includes all of the following **except**:
 - A. Massaging the uterus after delivery of the placenta
 - B. Administering a uterotonic drug within one minute after birth
 - C. Early cord clamping
 - D. Controlled cord traction
7. Controlled cord traction is applied at the same time as countertraction because:
 - A. Countertraction helps the placenta descend into the vagina.
 - B. Countertraction supports the uterus and helps prevent uterine inversion during controlled cord traction.
 - C. Countertraction reduces pain caused when controlled cord traction is applied.
 - D. Countertraction reduces the risk of maternal-to-child transmission of HIV.
8. If the placenta does not descend after the first attempt of controlled cord traction:
 - A. Consider placenta accreta and prepare the patient for a surgical intervention.
 - B. Do not continue to pull on the cord; gently hold the cord and wait until the uterus is well-contracted again.
 - C. Administer a second dose of the uterotonic drug.
 - D. Administer a different uterotonic drug than the one already administered.
9. The newborn can get cold if:
 - A. His/her body is wet.
 - B. If the skin is in contact with a cold surface.
 - C. If the baby is close to a cool place or an open window.
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10. The newborn needs thermal protection:
 - A. At two hours after birth
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11. Ms. Mboyo gave birth at 1:00 pm. Her baby is healthy. Her perineum is intact. The provider checked her blood pressure, pulse, uterine contraction, and vaginal bleeding at 2:00 pm. At what time should she recheck Ms. Mboyo's vital signs?
 - A. 2:15 pm
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Session 8: Resuscitation for Birth Asphyxia

12. The most appropriate actions in the management of neonatal asphyxia include:
- A. Vigorous slapping of the soles
 - B. Slapping the back
 - C. Spraying cold water on the face and rubbing the chest with alcohol
 - D. Drying and stimulation, temperature maintenance, clearing the airways where needed, and commencing ventilation
13. The following conditions may be a cause of neonatal asphyxia:
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Session 11: Diagnosing and Treating Breastfeeding Problems

14. The newborn is latching well to the breast when:
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17. The benefits of kangaroo mother care for an LBW infant are:
- A. Temperature maintenance
 - B. Increased stability of respiration
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**Session 13: Treatment of Infections in the Newborn**

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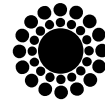
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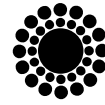
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1. Which of the following statements about cleaning instruments is **true**:
 - A. Cleaning is essential for sterilization and HLD to be effective.
 - B. Cleaning reduces the number of germs on instruments.
 - C. If bloody instruments are not cleaned before sterilization, germs in a clot may not be completely killed during sterilization.
 - D. All of the above are true.
 - E. None of the above are true.
2. Read each of the practices described below, then select which of them is an "acceptable" practice for preventing infection:
 - A. The housekeeper holds contaminated instruments under the water while scrubbing them.
 - B. A midwife drops instruments into a bucket with decontamination solution to avoid contact with the solution.
 - C. The obstetrician artificially ruptures membranes during a contraction to prevent splashes.
 - D. A nurse washes his hands with a 0.5% chlorine solution after accidentally getting blood on his hands.
 - E. All of the above are acceptable.

Session 3: Maternal Care to Improve Maternal and Newborn Survival

3. In malaria endemic areas, low birth weight may be prevented by all of the following interventions **except**:
 - A. IPTp
 - B. Insecticide-treated bednets
 - C. Tetanus toxoid vaccination
 - D. Iron supplementation during pregnancy
4. Ms. Kabila came for a prenatal care visit at 12 weeks gestation. Which preventive medications should be prescribed in an area endemic for malaria?
 - A. Fansidar (sulfadoxine pyrimethamine), iron, folic acid, mebendazole
 - B. 200,000 IU of vitamin A, iron, folic acid, mebendazole
 - C. Iron, folic acid, mebendazole
 - D. Iron, folic acid



Session 4: Preventing Postpartum Hemorrhage

5. Which of the following should be provided routinely to all women to ensure timely diagnosis and management of PPH:
 - A. Applying AMTSL at all births
 - B. Using the risk factor approach to identify women at high risk of suffering PPH
 - C. Carefully monitoring the woman's vital signs, uterine contraction, and vaginal bleeding during the immediate postpartum
 - D. Asking the woman to pass urine just before the second stage of labor

Session 5: Routine Care during the Third Stage of Labor

6. Active management of the third stage of labor includes which of the following elements:
 - A. Bimanual compression of the uterus
 - B. Giving a uterotonic drug after delivery of the placenta
 - C. Early cord clamping
 - D. Controlled cord traction
7. Controlled cord traction is not recommended if:
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 - B. The woman did not receive a uterotonic drug immediately after the birth of the baby.
 - C. Labor was stimulated using oxytocin.
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 - E. A and B
8. If the cord is ruptured during controlled cord traction:
 - A. Consider placenta accreta and prepare the patient for a surgical intervention.
 - B. Ask the woman to squat and deliver the placenta.
 - C. Administer a second dose of the uterotonic drug.
 - D. Administer a different uterotonic drug than the uterotonic drug already administered.
9. The baby of Mrs. Kanku, born at 10:30, has received cord and eye care. Vitamin K has been administered. At 10:45, he was bathed before being given back to his mother. This bath is:
 - A. Appropriate
 - B. Inappropriate
 - C. Good for the baby
 - D. None of the responses are correct.
10. The normal axillary temperature of a newborn is:
 - A. 35.5 to 36.5 °C
 - B. 36.5 to 37.5 °C
 - C. 37 to 38 °C
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Session 6: Monitoring the Woman and Newborn during the First 6 Hours Postpartum

11. Ms. Alimasi gave birth to a healthy baby at 12:20 pm. Her perineum is intact. The provider checked her blood pressure, pulse, uterine contraction, and vaginal bleeding at 4:20 pm and found them to be normal. At what time should she recheck Ms. Alimasi's vital signs?
- A. 5:20 pm
 - B. 4:50 pm
 - C. 4:35 pm
 - D. 7:20 pm

Session 8: Resuscitation for Birth Asphyxia

12. The baby of Mrs. Alina did not cry at birth and was bagged at 45 breaths/minute. This rate is:
- A. Appropriate
 - B. Too fast
 - C. Too slow
 - D. None of the answers are correct.
13. If the respiratory rate is 40/minute after a 5-minute ventilation with the bag and mask, what should be done?
- A. Increase ventilation to 50/minute
 - B. Decrease ventilation below 30/minute
 - C. Stop ventilation
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Session 11: Diagnosing and Treating Breastfeeding Problems

14. A newborn has received sugar water a few hours following birth. This practice is:
- A. Acceptable
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15. An HIV-positive mother has made the choice to breastfeed. When the baby was two weeks old, she added milk substitutes once a day. This practice is:
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Session 12: Care of the Low Birth Weight Baby

16. The benefits of the kangaroo mother care in an LBW baby include:
- A. Temperature maintenance
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 - C. Lower infection rate
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17. Malaria during pregnancy may be associated with:
- A. Increased neonatal mortality
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Session 13: Treatment of Infections in the Newborn

18. The neonatal danger signs include all the signs below except:
- A. Lethargy
 - B. Convulsions
 - C. Refusal to suck
 - D. Pus in the umbilicus
19. Mrs. Fita delivered her baby at the Zaba health center. The baby became lethargic at three days of age and refused to suck. He weighs 2200 grams. Appropriate medications to prescribe are:
- A. Cotrimoxazole and gentamycin
 - B. Ampicillin and gentamycin
 - C. Hydrocortisone and kanamycin
 - D. Quinine and multivitamin drops
20. Mrs. Diallo brought her 20-day-old baby to the health center for pus in the umbilicus and persistent vomiting. Appropriate treatment includes:
- A. Apply gentian violet on the umbilicus and review after 24 hours
 - B. Administer ampicillin and gentamycin and review after 24 hours
 - C. Administer ampicillin and gentamycin and send to a referral center
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ANSWERS TO Knowledge Assessment/Post-Course Questionnaire

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Session 6: Monitoring the Woman and Newborn during the First 6 Hours Postpartum

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Session 8: Resuscitation for Birth Asphyxia

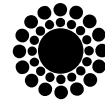
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Session 11: Diagnosing and Treating Breastfeeding Problems

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 - C. Risky
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Session 12: Care of the Low Birth Weight Baby

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Knowledge Assessment/Alternate Post-Course Questionnaire

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Session 1: Preventing Infection

1. Which of the following statements about hand washing is **true**:
 - A. Hand washing is the single most important practice for preventing cross-contamination.
 - B. Hand washing is mostly to protect the client from cross-infection and does little to protect the provider.
 - C. If a provider is in a hurry, it is more important to wash hands after taking off gloves than before putting them on.
 - D. All of the above are true.
 - E. None of the above are true.

2. Read each of the practices described below, then select which of them is an "acceptable" practice for preventing infection:
 - A. Using an alcohol and glycerine solution as a substitute for hand washing when the hands are visibly soiled
 - B. Re-using disposable surgical gloves that have been decontaminated, cleaned, and high-level disinfected four times
 - C. Pre-sorting linen at the point of use
 - D. Holding instruments and other items under the surface of the water while scrubbing and cleaning
 - E. All of the above are acceptable.

Session 3: Maternal Care to Improve Maternal and Newborn Survival

3. If a pregnant woman suffers from malaria during pregnancy, it could increase the risk of:
 - A. Severe maternal anemia, spontaneous abortion, and stillbirths
 - B. Low for birth weight infants
 - C. A and B
 - D. None of the answers is correct.

4. Birth preparedness includes:
 - A. Identifying the place of delivery
 - B. Arranging for the necessary finances for routine care and for emergencies
 - C. Arranging for transport
 - D. A and B
 - E. A, B, and C

**Session 4: Preventing Postpartum Hemorrhage**

5. Which of the following should be provided routinely to all women to ensure preventing PPH:
- A. Developing a complication-readiness plan during pregnancy
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 - D. Applying AMTSL at all births

Session 5: Routine Care during the Third Stage of Labor

6. Active management of the third stage of labor includes which of the following elements:
- A. Bimanual compression of the uterus
 - B. Give a uterotonic drug after delivery of the placenta
 - C. Early cord clamping
 - D. Controlled cord traction
7. Controlled cord traction is applied at the same time as countertraction because:
- A. Countertraction helps the placenta descend into the vagina.
 - B. Countertraction supports the uterus and helps prevent uterine inversion during controlled cord traction.
 - C. Countertraction reduces pain caused when controlled cord traction is applied.
 - D. Countertraction reduces the risk of maternal-to-child transmission of HIV.
8. If the placenta does not descend after the first attempt of controlled cord traction:
- A. Consider placenta accreta and prepare the patient for a surgical intervention.
 - B. Do not continue to pull on the cord; gently hold the cord and wait until the uterus is well contracted again.
 - C. Administer a second dose of the uterotonic drug.
 - D. Administer a different uterotonic drug than the one already administered.
9. The appropriate time to clamp the umbilical cord in a normal baby is:
- A. Immediately after birth
 - B. 1 minute after birth
 - C. 2 -3 minutes after birth
 - D. A and B
 - E. A and C
10. The newborn baby who is hypothermic has an axillary temperature of:
- A. 34.5 to 35.5 °C
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Session 6: Monitoring the Woman and Newborn during the First 6 Hours Postpartum

11. Ms. Mboyo gave birth to a healthy baby at 1:00 pm. Her perineum is intact. The provider checked her blood pressure, pulse, uterine contraction, and vaginal bleeding at 2:00 pm. At what time should she recheck Ms. Mboyo's vital signs?
- A. 2:10 pm
 - B. 2:15 pm
 - C. 2:30 pm
 - D. 3:00 pm

Session 8: Resuscitation for Birth Asphyxia

12. The most appropriate way to manage birth asphyxia is to:
- A. Administer sodium bicarbonate intravenously
 - B. Slap the back of the newborn
 - C. Spray cold water on the face and rub alcohol on the chest
 - D. Dry and stimulate, maintain temperature, clear the airways where needed, and ventilate
13. The conventional range for ventilation of the newborn baby with bag and mask is:
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 - B. The lower lip is everted.
 - C. The areola is more visible above than below the mouth.
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15. Mohini is HIV-positive and has chosen to breastfeed her baby. Exclusive breastfeeding is recommended:
- A. Until the infant is 6 months of age
 - B. Until the infant is 12 months of age
 - C. If artificial milk is available
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**Session 12: Care of the Low Birth Weight Baby**

16. The recommended dose of vitamin K for an LBW baby weighing 2000 grams at birth is:
- A. 0.25 mg
 - B. 0.5 mg
 - C. 0.75 mg
 - D. 1.00 mg
17. The benefits of the kangaroo mother care in an LBW baby include:
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Session 13: Treatment of Infections in the Newborn

18. The danger signs in the newborn include:
- A. Difficulty in breathing
 - B. White patches in the mouth
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19. Mrs. Fita delivered her baby at the Zaba health center and was discharged after two days. Three days later her baby developed fever and refused to suck. His weight is 2200 grams. The most appropriate medications to be prescribed are:
- A. Cotrimoxazole and gentamycin
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20. Mrs. Konku's baby was prescribed a local antiseptic for pus discharge from the umbilicus. She brought the baby to the health center after four days. The health worker observes that the baby is very inactive. What should the health worker do?
- A. Administer ampicillin and gentamycin and call the baby back for review after 48 hours
 - B. Administer ampicillin and gentamycin and refer the baby to a suitable higher center
 - C. Counsel the mother to keep the baby warm through skin-to-skin contact during transport
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