

DAKSHATA

Empowering Providers for Improved MNH Care during Institutional Deliveries

3 Days Technical Update cum Skills Standardization Training



Facilitator's Guide



Maternal Health Division
Ministry of Health and Family Welfare
Government of India



April 2015

DAKSHATA

Empowering Providers for Improved MNH Care during Institutional Deliveries

3 Days Technical Update cum Skills Standardization Training

Facilitator's Guide

April 2015



Maternal Health Division
Ministry of Health and Family Welfare
Government of India



April 2015

Maternal Health Division

Ministry of Health & Family Welfare

Government of India, Nirman Bhawan, New Delhi-110011



C.K. Mishra, IAS

Additional Secretary &
Mission Director, NHM
Telefax : 23061066, 23063809
E-mail : asmd-mohfw@nic.in



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली - 110011
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110011

Preface

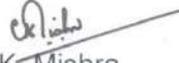
Considering the fact that majority of maternal and newborn deaths occur during and around childbirth, improving the quality of care for childbirth related services is an important strategic priority for the country. Essential components of quality improvement process for these services are the status of skills healthcare workers, availability of essential resources for best care practices, and regular post-training mentorship support.

I am happy to note that the Government of India took a decision to develop a comprehensive program '*Dakshata*' that aims at strengthening the competency of healthcare workers in performing essential maternal and newborn health care practices, ensuring essential supplies, and providing periodic support to the institutions for improving quality of services.

This program has been developed with a vision to standardize healthcare practices across labor rooms in the country with a special focus on high priority states of Rajasthan, Madhya Pradesh, Odisha, Bihar, and Uttar Pradesh. The program design and training approach takes into account the scientific evidence and proven strategies to address the programmatic needs of maternal and newborn health care in the country. Trainings and other activities under this initiative will enable health workers providing childbirth-related services to adhere to all life-saving practices in each case.

This facilitator guide will help standardize training methodology and content across states and districts and will ensure an efficient translation of the program guidelines into successful field implementation.

I sincerely hope that this program will be implemented in its true spirit and vigour to ensure its translation to high-quality childbirth-related services in the country in line with the overall goal of reducing maternal and newborn mortality.


C. K. Mishra



Dr. RAKESH KUMAR, I.A.S
JOINT SECRETARY
Telefax : 23061723
E-mail : rk1992uk@gmail.com
E-mail : rkumar92@hotmail.com



सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली – 110011
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110011

Foreword

Improving the maternal and newborn health services in the country has been the focus for efforts of the Government of India (GoI) since the last decade. Significant improvements have been observed in the rates of institutional births. However, evidence suggests that improved numbers in absence of concurrent quality improvement efforts do not generate the desired reductions in maternal and newborn mortality.

With this vision, the Government of India has been strengthening guidance mechanisms for facilitating quality improvement for childbirth related services at institutions and beyond throughout the country. Initiatives such as the Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A) and India Newborn Action Plan (INAP) are testimonial to the country's effort to improve quality and reduce needless deaths of mothers and newborns.

It is well known that quality of care provided at the time of childbirth has strong influence on both the maternal and newborn mortality. This quality of care is highly dependent upon the skill of health workers and the overall quality enabling environment at the health facilities. Within this backdrop and after reviewing the ongoing childbirth quality improvement initiatives, Ministry of Health and Family Welfare has developed this strategic initiative '*Dakshata*' for rapid improvements in quality of care for childbirth related services in the country. This initiative targets major causes of maternal and newborn mortality through a unique combination of strategic skill building, ensuring adequate resources, improved use of data for action, and developing enabling environment at these institutions.

This facilitator guide describes the learning resource package for this initiative. Strategic skill building of the service providers form an integral component of '*Dakshata*' and content of this guide will enable the trainers to impart high-quality training.

The resource package is the outcome of efforts and dedication of the Maternal Health Division of the Health Ministry and various contributing experts. I am confident that this program will become a milestone in the process of empowering health workers of the country to provide high quality care.

Dr. Rakesh Kumar



Dr. Dinesh Baswal
Deputy Commissioner (Maternal Health)
Telefax : 23062288
E-mail : dinesh126@hotmail.com



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली - 110011
Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110011

Program Officer's Message

Government of India has a commitment to ensure universal coverage of all births with skilled attendance both at institution and in community. Considering the fact that majority of maternal and newborn deaths occur during and around childbirth, improving the quality of care for childbirth related services is an important strategic focus of Government of India.

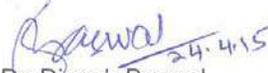
Major driver for quality of care during and around childbirth is availability of skilled health care workers. With the objective of strengthening quality of care during childbirth, Government of India has introduced Skill Birth-Attendance (SBA) programme. However, field visits demonstrated that Auxiliary Nurse Midwives (ANMs) at Subcentres have either not been trained in SBA or the quality of training has been sub-optimal.

With this background and towards strengthening of quality of care during the intra and immediate postpartum period, Government of India is launching a strategic initiative 'DAKSHATA' to enable the service provider in providing high-quality services during childbirth in institutions. The program design includes a concise training package for competency enhancement of Nurses and ANMs.

I am grateful to Shri. C.K Mishra, AS&MD for providing constant support and guidance. I am indebted to Dr. Rakesh Kumar, Joint Secretary (RMNCH+A) for his able and extraordinary leadership in taking the process forward.

I would like to acknowledge the contribution of all Expert Group members in developing the content of these operational and facilitators guidelines. I would also like to acknowledge the efforts of Dr. Bulbul Sood, Jhpiego for facilitating this process of developing this comprehensive training package. I would also like to thank Dr. Somesh, Dr. Vikas Yadav, Jhpiego India; Dr. Ravinder Kaur, Dr. Rajeev, Dr. Pushkar and Dr. Tarun, Consultants, MoHFW for their immense contributions.

I am hopeful that the efforts put in by the experts in drafting this comprehensive training package shall be useful for all stakeholders while working towards improving the quality of care during and after childbirth.


24.4.15
Dr. Dinesh Baswal

Healthy Village, Healthy Nation



एड्स - जानकारी ही बचाव है
Talking about AIDS is taking care of each other

LIST OF CONTRIBUTORS

Shri C. K. Mishra	AS & MD (NHM), MoHFW
Dr. Rakesh Kumar	JS (RMNCH+A), MoHFW
Dr. Dinesh Baswal	DC (MH-I/C), MoHFW
Dr. Manisha Malhotra	Former DC (MH), MoHFW
Dr. Bulbul Sood	Country Director, Jhpiego
Dr. Somesh Kumar	Deputy Country Director, Jhpiego
Dr. Vikas Yadav	Associate Director- MNH, Jhpiego
Dr. Rashmi Asif	Director-CST, Jhpiego
Dr. Sunita Dhamija	Senior Clinical Officer, Jhpiego
Dr. Yashpal Jain	State Program Manager, Rajasthan, Jhpiego
Dr. Ram Chahar	Program Officer, Jhpiego
Dr. Ravinder Kaur	Senior Consultant, MH, MoHFW
Dr. Rajeev Agrawal	Senior Mgt. Consultant, MH, MoHFW
Dr. Pushkar Kumar	Lead Consultant, MH, MoHFW
Dr. Tarun Singh Sodha	Consultant, MH, MoHFW

- Celine Gomes from Jhpiego provided support in designing and publishing the document.
- Mr. Lalit Kumar Verma from MoHFW provided administrative assistance during the process.

TABLE OF CONTENTS

Background.....	1
Goal of the training.....	1
Objectives of the training	1
Training strategy	2
Role of the trainers.....	3
Agenda.....	5
Session plans.....	10
Day one, Section one-Introduction to the concept of quality of care and role of SCC in it.....	10
Session 1.1 Welcome and opening session	11
Session 1.2 Pre-training knowledge assessment and OSCE	14
Session 1.3 Importance of ensuring quality of care in labour room	16
Session 1.4 Current practices in client management in labour rooms at worksite of learners ..	24
Session 1.5 Understanding stages of labour in relation to flow of client care	25
Session 1.6 Introduction to the safe childbirth checklist-a simple tool to improve quality of Care	29
Day one, Section two-Care at the time of admission.....	37
Session 1.7 Training based on history, examination and decision for level of care	38
Session 1.8 Importance of monitoring of vitals during labour.....	42
Session 1.9 Immediate actions for prevention of major complications in mothers.....	45
Session 1.10 Prevention, identification and management of pre-eclampsia/eclampsia.....	52
Session 1.11 Monitoring the progress of labour-plotting and interpreting partograph.....	60
Session 1.12 Principles of timely identification and management of prolonged and obstructed labour.....	69
Session 1.13 Empowering birth companions for participation in care of the mother and the baby.....	79
Session 1.14 Summary and review of the day's activities.....	82
Day two, Section three-Essential practices just before, during and after delivery	83
Session 2.1 Recap of day one; review partograph exercise and agenda of day two.....	84
Session 2.2 Preparing for safe delivery	85
Session 2.3 Normal delivery and active management of third stage of labour	87
Session 2.4 Essential newborn care	92

Session 2.5	Management of second and third stages of labour	96
Session 2.6	Preventing complications in newborn	98
Session 2.7	Prevention, identification and management of postpartum haemorrhage	102
Session 2.8	Review of care of mother and newborn soon after birth	111
Session 2.9	Prevention, identification and management of newborn infections	119
Session 2.10	Special care for newborns with small size at birth	126
Session 2.11	Summary and review of day two activities	135
Day three, Section four-Essential practices at the time of discharge.....		136
Session 3.1	Recap of day two and agenda day three	137
Session 3.2	Assessing and managing postpartum complication in mothers	138
Session 3.3	Postpartum family planning counselling	145
Session 3.4	Discharge counselling on danger signs for mother and baby and seeking care	155
Session 3.5	Respectful maternity care	156
Session 3.6	Do's and don'ts during all four stages of labour	158
Day three, Section five-Creating a quality enabling environment in labour rooms.....		160
Session 3.7	Infection prevention practices and biomedical waste management	161
Session 3.8	Organization of labour room for improved quality	170
Session 3.9	Recording and reporting	176
Session 3.10	Post-training knowledge assessment and OSCE, review of training, learner's feedback of the training	177
Session 3.11	Next steps, certificate distribution and closing	179

ABBREVIATIONS

AMTSL	Active Management of Third Stage of Labour
ANCS	Antenatal Corticosteroids
ANM	Auxiliary Nurse Midwife
APH	Antepartum Hemorrhage
ART	Antiretroviral Therapy
BP	Blood Pressure
CSS	Clinical Skills Standardization
CHC	Community Health Centre
DH	District Hospital
ENBC	Essential Newborn Care
FBNC	Facility Based Newborn Care
FHS	Foetal Heart Sounds
FHR	Foetal Heart Rate
FP	Family Planning
FRU	First Referral Unit
GoI	Government of India
Hb	Haemoglobin
HIV	Human Immuno Deficiency Virus
HLD	High Level Disinfection
HTSP	Healthy Timing and Spacing of Pregnancy
IP	Infection Prevention
IPP	Infection Prevention Practices
JSSK	Janani Shishu Suraksha Karyakram
JSY	Janani Suraksha Yojna
KMC	Kangaroo Mother Care
LBW	Low Birth Weight
LMP	Last Menstrual Period
LR	Labour Room
MDG	Millennium Development Goals
MMR	Maternal Mortality Rate
MNH	Maternal and Newborn Health

NSSK	Navjat Shishu Suraksha Karyakram
OSCE	Objective Structured Clinical Examination
PE/E	Pre-eclampsia/Eclampsia
PPE	Personal Protective Equipment
PPFP	Postpartum Family Planning
PPT	PowerPoint Presentation
PPV	Positive Pressure Ventilation
PV	Per Vaginal
PPTCT	Preventing Parent to Child Transmission
QoC	Quality of Care
SBA	Skilled Birth Attendant
SCC	Safe Childbirth Checklist
TPR	Temperature, Pulse, Respiration
USG	Ultrasonography
WHO	World Health Organization

Background

The Government of India (GoI) is committed to reducing maternal and newborn mortality (Millennium Development Goals 4 and 5). Based on the global evidence on importance of skilled attendance at birth and emergency obstetric and newborn care, GoI is implementing schemes such as Janani Suraksha Yojna (JSY) and Janani Shishu Suraksha Karyakram (JSSK), to improve access to health services for mothers and newborns. This has led to a significant increase in institutional delivery rates in the country. However, while the access to health services has increased, the rate of reduction in maternal and newborn mortality is disproportionately slow and is still far from the Millennium Development Goals (MDGs).

Many factors influence the quality of intra- and immediate postpartum care. Major drivers are: availability of resources, both human and material; skills of health care workers; ability and motivation of health care workers to practice the learned skills; and accountability for providing high-quality health services. Majority of deliveries in India are conducted by nurses and ANMs. GoI is striving to build the capacity of health care workers for providing high-quality maternity services through initiatives such as 21 days in-service Skilled Birth Attendance (SBA) training. However, field visit observations indicate their poor skills to conduct deliveries and newborn care despite undergoing the SBA training.

WHO's Safe Childbirth Checklist (SCC), adapted and recommended for use by GoI, is a simple tool for health workers that help them to adhere to safe care practices during every childbirth. The SCC is a bed-side job-aid and easy-to-use tool which also acts as a ready reckoner for the high impact practices which need to be implemented universally during childbirth. SCC program implementation in Rajasthan has shown significant improvement in adherence to life-saving practices by health workers during childbirth. Focused competency-based trainings using SCC as a framework were found to be highly successful in rapidly empowering health workers for high-quality service delivery.

With this background, GoI has developed a strategic initiative named 'Dakshata' to empower health workers to provide high-quality care during childbirth. An important component of this initiative is strategic skill building of health workers in key life-saving practices to be performed during childbirth. This facilitator guide describes in detail the methodology of strategic skill building trainings.

Goal of the training program under Dakshata initiative

To have empowered service providers at the delivery points who are competent to perform all the evidence based practices for maternity care during labour, delivery and immediate postpartum period to reduce maternal and neonatal mortality

Objectives of the training

By the end of this training, the learners will be able to:

- State common causes of maternal and neonatal deaths in India
- Describe essential standards and importance of quality of care during childbirth as per GoI guidelines

- Demonstrate essential clinical practices for routine care (AMTSL, ENBC, NBR, IPP, PFFP) and management of complications (PPH, PE/E, Sepsis, Pre-term/LBW baby) during various stages of labour in a simulated environment or on clients in a clinical setting
- List the key elements for ensuring readiness of labour rooms for quality service delivery
- Explain the process of maintaining and use of childbirth services related records.

Training Strategy

Duration of training

This is a customized 3-days clinical update cum skills standardization training at the identified training sites.

Trainers

There will be 3 trainers in each district. This will include one doctor (Ob/gyn or LMO) and two nurses designated by the government.

Eligibility of learners

All providers working in the labour room, irrespective of their training status in the 21 days in-service SBA training will be eligible for this training.

Batch Size

Each batch will be of 14-16 learners.

Sites of training

In each district, either the district hospital (DH) or/and a high case load CHC will be the training site.

Training approach

The sessions will be conducted using a competency-based approach with SCC as a framework. The trainers will use different participatory training methods based on the adult learning principles to make the sessions interesting and engaging.

To ensure clinical knowledge update, the trainers will present the information through interactive presentations, activities, games and discussions. To build the competency, the trainers will demonstrate the skills on anatomic models (humanistic approach) and facilitate learners to practice them using the relevant skills checklist and the SCC.

The learners will be encouraged to participate actively throughout the training and ask questions without hesitation to clarify their doubts.

Assessment and evaluation

As the objective of the training is to build competency, the cut off pass score for knowledge and skills will be 80% individually.

Throughout the training, progressive learning will be assessed and facilitated for knowledge and skills. It will be done at the beginning and at the end of the training through a pre- and post-

training knowledge assessment questionnaire and objective structured clinical examination (OSCE), for skills as per the standard skills checklists. The results of these assessments will be shared with the learners to inform the increase in their learning and status of competency in skills.

These assessments will also serve as an assessment of quality of training by noting the increase in knowledge and skills of the learners at the end of the training compared with their pre-training existing knowledge, skills and their scores.

At the end of the training, it will be evaluated for its usefulness by the learners through a learner’s feedback form with suggestions for improvement.

Role of the trainers

The trainers will act like facilitators and use different training methods, coaching and resources to facilitate learning. They will ensure quality of training by applying the training approach mentioned earlier.

Pre-preparation by the trainers

At least one-two days prior to initiation of training, ensure:

- All resources, training material and handouts as per Annexure 1 (CSS Training Materials) are available at the training site
- Prepare folders for learners with all the materials mentioned in Annexure 2 (List of items for learner’s folder) placed in them and ready for distribution
- Prepare registration and attendance sheet as per the format below and attach it on a writing board with clip and keep a pen with it:

Title of the training.....

Datesto..... Venue of the training..... District State.....

SN	Name	Designation	Place of posting	Tel/Mob number	Email ID	Signatures		
						Day 1 Date	Day 2 Date	Day 3 Date
1.								
2.								
15.								

On the first day of the training before the learners arrive

- Set the room with ‘U’ shaped seating arrangement if possible for the learners and the trainers with space in the centre for the trainers to move and to facilitate interaction among the group

- Ensure that all equipment for LCD and PowerPoint presentation is functional, well placed and adjusted for all participants (learners and trainers) to see clearly
- Arrange skills stations for OSCE as per Annexure 3 (Preparation for skills stations)
- Arrangement of water, refreshments and meals are arranged
- Arrangement for clean toilets with water and hand washing facilities

Pre-preparation for each session

Read the facilitator's guide and get familiar with the contents of the session and its resources

- Ensure all training and learning material and resources are available in the training room prior to the session
- Arrange skills stations, LCD equipment and ensure the ppts and videos are getting displayed properly (to be ensured at the beginning of each day also before the learners arrive)
- Prepare any flip chart or slips for activities if required for the session.

At the end of each day ensure that

- The learners leave the training room clean with all trash thrown in the dustbin
- Trainers to meet for at least half an hour to review the day's activities and quality of training and plan for the next day

At the end of the training

- Ensure that all the training material, models, instruments and equipment are packed and stored at a safe place for next training.
- Documentation and report of the training completed should be sent to the concerned authorities with a copy in the records of the training site.

Dakshata: 3 Days Technical Update cum Skills Standardization Training Agenda

Duration	Topic	Suggested methodology
Day 1		
Section 1: Introduction to the concept of quality of care and role of SCC in it		
20 mins	Registration, Welcome and opening session (introduction, participants' expectations, training norms, goal and objectives of training, agenda, orientation to training package)	Interactive presentation and facilitation
45 mins	Pre-training knowledge assessment and pre-training OSCE	Simultaneous activity by learners, observed by trainers
15 mins	Importance of ensuring quality care in labor room	Interactive presentation
20 mins	Current practices in client management in labour rooms at worksite of learners (flow of client care)	Brain storming and discussion using flipchart
10 mins	Understanding stages of labor in relation to flow of client care	Interactive presentation
15 mins	Tea Break	
30 mins (10 mins+ 20 mins)	Introduction to the Safe Childbirth Checklist (SCC)—A simple tool to improve quality of care Orientation to the layout of SCC	<ul style="list-style-type: none"> • Interactive presentation • Checklist reading
Section 2: Care at the time of admission		
90 mins	Triage based on history, examination and decision for level of care Demonstration of critical assessment skills— <ol style="list-style-type: none"> a. Correct estimation of gestational age b. Appropriate assessment of uterine contractions c. Localizing and appropriate recording of FHR d. Hand washing, wearing gloves e. Conducting PV examination and removing gloves BP measurement, Hb estimation by Sahli's method, Urine protein estimation by Uristix	<ul style="list-style-type: none"> • Interactive presentation • Videos on BP, Hb, urine protein and sugar • Demonstration on models
10 mins	Importance of monitoring vitals during labor	<ul style="list-style-type: none"> • Refer to SCC section • Interactive presentation and discussion
45 mins	Lunch	
30 mins	Immediate actions for prevention of major complications in the mother: <ol style="list-style-type: none"> a. Antibiotics for infection prevention and management b. Antenatal corticosteroids in pre-term delivery 	<ul style="list-style-type: none"> • Refer to SCC • Interactive presentation and discussion

Duration	Topic	Suggested methodology
	c. Antiretroviral therapy for HIV management	
30 mins	Prevention, identification and management of pre-eclampsia and eclampsia	<ul style="list-style-type: none"> • Interactive presentation and discussion • Refer to SCC • Video on management of PE/E (SBA module)
60 mins	Monitoring the progress of labor–plotting and interpreting partograph	<ul style="list-style-type: none"> • Interactive presentation • Practice on case study 1
15 mins	Tea	
30 mins	Principles of timely identification and management of prolonged and obstructed labor	Interactive presentation and discussion
10 mins	Empowering birth companions for participation in care of the mother and the baby	Interactive presentation and discussion with SCC
5 mins	Summary and review of the day's activities	Presentation by learners

Duration	Topic	Suggested methodology
Day 2		
Section 3: Essential practices just before, during and after delivery		
40 mins	<ul style="list-style-type: none"> Recap of day one. Review partograph exercise Present agenda day 2 	<ul style="list-style-type: none"> Recap by learners Review and facilitation by trainer
30 mins	Preparing for safe delivery: <ol style="list-style-type: none"> Personal protective equipment (PPE) Trays relevant for safe delivery as per MNH toolkit Importance of pre-filled oxytocin in sterile syringe 	<ul style="list-style-type: none"> Demonstrate PPE Demonstrate delivery and baby trays Explain other trays using job aid
15 mins	Normal delivery and active management of third stage of labor (AMTSL)	<ul style="list-style-type: none"> Interactive presentation and discussion
15 mins	Essential new born care (ENBC)	<ul style="list-style-type: none"> Interactive presentation and discussion
15 mins	Tea	
120 mins	Management of second and third stage of labor <ol style="list-style-type: none"> Conducting normal delivery (ND) ENBC and AMTSL New Born Resuscitation (NBR) 	<ul style="list-style-type: none"> Demonstration followed by skill practice using models and skills checklist
15 mins	Preventing complications in newborn	Interactive presentation and discussion
45 mins	Lunch	
60 mins	Prevention, identification and management of postpartum hemorrhage (PPH) <ol style="list-style-type: none"> Prevention of PPH–AMTSL Initial management of shock and PPH Bimanual compression 	<ul style="list-style-type: none"> Interactive presentation Video on PPH (SBA module 5) Demonstration and practice on models using skills checklist
30 mins	Review of care of mother and newborn soon after birth <ol style="list-style-type: none"> Regular assessment of clinical condition of mother and newborn (Routine care) Early initiation of breast feeding Prevention of hypothermia 	<ul style="list-style-type: none"> Interactive presentation and discussion
30 mins	Prevention, identification and management of newborn infections <ol style="list-style-type: none"> Antibiotics and referral ART for newborn 	Interactive presentation and discussion referring to SCC
15 mins	Tea	
45 mins	Special care for pre-term and LBW babies:	<ul style="list-style-type: none"> Interactive presentation

Duration	Topic	Suggested methodology
	a. Thermal management including KMC b. Assisted feeding c. Infection prevention	<ul style="list-style-type: none"> • Demonstration and practice on models on position and attachment for breastfeeding • Demonstration on KMC and assisted feeding (OGT insertion)
10 mins	Summary and review of the day's activities	Presentation by learners

Duration	Topic	Suggested methodology
Day 3		
Section 4: Essential practices at the time of discharge		
15 mins	<ul style="list-style-type: none"> Recap of day 2 Agenda of day 3 	<ul style="list-style-type: none"> Recap by learners Facilitation by trainer
20 mins	Assessing and managing postpartum complications in mothers <ol style="list-style-type: none"> Puerperal sepsis Delayed PPH 	<ul style="list-style-type: none"> Interactive presentation and discussion Refer to SCC
30 mins	Postpartum family planning counseling (return to fertility, healthy timing and spacing of pregnancy, postpartum family planning options)	<ul style="list-style-type: none"> Interactive presentation using job-aids Role play
20 mins	Discharge counseling on danger signs for mother and baby and seeking care	Refer to SCC and discussions
15 mins	Tea	
15 mins	Respectful maternity care	Video RMC (MAF) and discussion
30 mins	Do's and Don'ts for all four stages of labor	Game
Section 5: Creating a quality enabling environment in labor rooms		
30 mins	Infection prevention practices and biomedical waste management	<ul style="list-style-type: none"> Interactive presentation, discussion Video Demonstration using IP material
85 mins	Organization of labor room as per Gol guidelines	<ul style="list-style-type: none"> Photographs based interactive presentation and discussion Group work for organizing LR with prompts Video on organization of labor room (Gol)
45 mins	Lunch	
30 mins	Recording and reporting <ul style="list-style-type: none"> LR Register Monthly Reporting Format 	Discussion with hand outs
45 mins	Post-training knowledge assessment and OSCE Learners' feedback of training Sharing knowledge and OSCE results	Learners activity observed and presented by trainers
30 mins	Next steps, certificate distribution and closing	Trainer/Government or facility official
15 mins	Tea	

DAY ONE SESSION PLANS

Section One

Introduction to the concept of quality of care and role of SCC in it

Session 1.1

Welcome and Opening Session

(Registration, Introduction, Participants' Expectations, Training Norms, Goal and Objectives of Training and Agenda)

Duration: 20 minutes

Session objectives

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

- Introduce themselves to the group
- List their expectations from the training
- List and agree on some ground rules for the training
- Describe the goal and objectives of the training

Resources/materials needed:

- List of CSS training material
- Preparation of skills stations
- LCD, screen, laptop, extension board, power source
- PowerPoint presentation on goal and objectives of the training (PPT 1.1)
- Pre-prepared attendance sheet on a hard base and pen
- Learners' folders with contents
- Copy of agenda
- Flip charts or white board, flip chart stand and markers
- Double sided sticky tapes
- Masking tape

Pre-preparation by the trainers

- Prepare the attendance sheet with the title having name of the training, venue and dates and make columns for serial numbers, name, designation, place of work, qualifications, phone number, e-mail ID, dates of the training and place for signatures
- Prepare a welcome sheet on the flip chart and keep it displayed
- Keep learners folders ready with all materials in each
- Familiarize with the contents of the session

Instructions

- Greet learners and open the training by welcoming them to this 3 days clinical update cum skills standardization training to improve quality of intrapartum and immediate postpartum care. This might be done by an invited guest such as the head of the facility where training is happening or representative from the district health administration or the trainers themselves. In case the head is late, continue the training and open when they arrive.
- Present the objectives of this opening session either through the PPT slide or pre-prepared flip chart.

- Ask the learners to write their details as required in the columns of attendance sheet for registration
- Tell the learners that first we will get familiar with each other. So each person will self-introduce to the group by telling his/her name, qualification, years of experience and their place of posting. The trainers will also self-introduce themselves before or after the learners.
- Ask the learners to express one expectation with which they have come for the training. The co-trainer can list their expectations on a flip chart sheet. The trainers will also express their expectation from the learners and note it on the flip chart.
- Tell the learners that to run the training smoothly without disturbances it will be good to set some norms which all the participants including the trainers will follow and list the norms on a separate flip chart. Facilitate setting the norms by giving some points as suggested in the box1-Training Norms

Box 1.1. Training Norms

- Adhere to the start and end time for each day and the sessions
- Set the number and duration for breaks between the sessions
- Mobile phones to be on silent mode during the sessions
- Learners to ask questions during the session
- Maintain respect for each other
- Active participation by all to achieve learning
- One person to speak at a time
- No cross talks
- Share experiences and learn more from each other

- Present the goal and objectives of the training using the pre-prepared flip chart or PPT 1.1. Do not discuss the objectives at this point, but refer to the expectations of the learners and point the expectations which are beyond the scope of this training and will not be addressed.
- Present the agenda of the day. Do not discuss any topic at this point.
- Explain the training approach that it is competency based with knowledge update on clinical technical information through interactive presentations, discussions and skills standardization using skills checklist and SCC to learn to provide quality services for women and newborns at and around the time of delivery. The training is based on adult learning principles. Hence, the learners will play an active role during their learning process.
- Distribute the training package to the learners. Ask them to write their names in big letters on the name tags. Tell the serial number of each learner according to the attendance sheet and ask them to note it on their tags or remember it for future use. Tell them to wear their name tags.
- Tell the learners to write their names on their folders and material to avoid mixing with the material of others.
- Orient the learners to the contents of their folders. Tell them that this material will be used at different times during the training.
- Summarize the session by saying that we will follow the norms and participate actively during the training.

Presentation 1.1



Goal and Objectives of Dakshata Training

Goal of Dakshata Training

To have empowered service providers at the delivery points who are competent to perform all the evidence based practices for maternity care during labour, delivery and immediate postpartum period to reduce maternal and neonatal mortality



2

Objectives of Dakshata Training

At the end of training the learners will be able to:

- State common causes of maternal and neonatal deaths in India
- Describe essential standards and importance of quality of care around the time of childbirth as per GoI guidelines
- Demonstrate essential clinical practices for routine care (AMTSL, ENBC, NBR, IPP, PFP) and management of problems (PPH, PE/E, Sepsis, Pre-term/LBW baby) during various stages of labour in a simulated environment or on clients in a clinical setting
- List key elements for ensuring readiness of labour rooms for quality service delivery
- Explain the process of maintaining and use of childbirth services related records



3

Session 1.2

Pre-training Knowledge Assessment and OSCE

Duration: 45 minutes

Session objectives

By the end of the session, the learners will be able to:

- Respond to pre-training knowledge and skills assessment as per their current understanding

Resources/materials needed

- Copies of the pre- and post-training knowledge assessment questionnaire one for each learner
- Answer key of knowledge assessment for trainer
- Copies of pre-training OSCE sheets one for each learner
- Answer key of OSCE for trainers
- Matrix of knowledge assessment and OSCE for facilitators
- Setting up of skills stations before OSCE. List of materials for skills stations/Setting up skills stations guide)
- Office bell, green and red highlighters

Pre-preparation by the trainers

- The trainers will familiarize themselves with the contents of the session
- Prepare the two OSCE stations with their models and equipment and supplies at the beginning of the day before the learners arrive
- Ensure pre-training knowledge and OSCE assessment sheets are present in each learner's folder

Instructions:

- Introduce the session by telling learners that before we begin the sessions, it will be good to assess what we all know about some areas of maternal and newborn care which will be covered during the training. This will help us, the trainers to know your current knowledge and skills and will guide what needs to be updated during the training. This will also serve as a baseline to evaluate the quality and effectiveness of training by assessing the improvement in your knowledge and skills at the end of the training.
- Ask learner's to take out pre-training knowledge assessment questionnaire and pre-training OSCE skills assessment sheets from their folders.
- Tell each learner to write their name and/or registration number as provided to them in session one, on these assessment sheets.
- Explain the process of knowledge assessment and OSCE as simultaneous activities. Conduct the OSCE by dividing the learners in 2 groups. One group will go to station 1 on AMTSL and the other group will go to the OSCE station 2 on NBR.

- The trainer at each station will tell the situation of the simulation and ask any one volunteer from each group who would like to demonstrate the concerned skill at the station. If no volunteer comes forward, the trainer will ensure a non-threatening environment and encourage one learner to demonstrate the skill.
- Inform the remaining learners of the group to observe the steps being performed by the volunteer closely and quietly.
- Mark the steps as instructed in the OSCE answer key. When the skill is over, ask the group whether they also perform the skill in the same way or which step do they do differently.
- Score the skill assessment after eliciting the response from the group. This observation will help the trainer to focus and stress on the steps while demonstrating the same skills later.
- Once the OSCE is over, tell the learners to complete their knowledge questionnaire and the remaining OSCE stations 3 and 4 at their seats.
- The answer sheets of the knowledge and OSCE sheets can be scored by the co-facilitator when one facilitator is conducting the next session.
- Score the OSCE and knowledge assessment marks in the respective matrix sheets as per the serial number of the learners. Note that only one OSCE sheet will be filled which will not be assigned to any one learner but to the group at that station.
- Highlight the pass score of 80% in both knowledge and skills separately.
- Highlight the maximum and minimum scores achieved by green and red highlighters respectively.
- Display the pre-training score matrix when done at a common place for everyone to see.

Session 1.3

Importance of Ensuring Quality Care in Labour Room

Duration: 15 minutes

Learning objectives

By the end of the session, learners will be able to:

- State the times when most mothers and newborns are dying
- List the major preventable causes of maternal and neonatal deaths in labour rooms
- Explain the use of SCC as a tool for improving quality of care (QoC) and adhere to best evidence based practices

Resources/materials needed

- LCD projector, screen, laptop, extension board and power source
- Flip chart, flip chart stand and markers
- Presentation, importance of ensuring quality care in labour room (PPT1.3)

Instructions

- Introduce the session that, now we will discuss about the importance of ensuring quality of care for mothers and newborns in labour rooms. Use presentation 1.3 and present the objectives of this session.
- Ask the group when are most of the mothers and newborns dying? Wait for a few learners to respond, then present that most deaths occur around the time of birth that is during delivery and immediate postpartum period.
- Ask the group to list main causes of maternal and newborn deaths. Explain that majority of the causes of maternal and neonatal deaths are preventable by being alert and applying evidence based practices.
- Explain that period for maximum risk for mother and newborn is during and immediately after delivery and this is the time when the woman is in the health care facility especially in the labour room in the close proximity of health care providers.
- Describe that after Gol's initiative to promote institutional deliveries through JSY scheme, the number of institutional deliveries have increased considerably but reduction in MMR and IMR are not proportional to this increase. This means that contacts with the health system for care during delivery is not useful if high quality services are not available. Explain the client flow pattern in a health facility. Explain that with institutional deliveries, the woman and newborn are under care of the health providers when they are most vulnerable and at high risk of losing life. Hence, good quality and timely care can help prevent unnecessary deaths.
- Present the context of why pregnancy outcomes and maternal and neonatal mortality rates are not improving despite increase in institutional deliveries. Explain that in such a context we agree that quality of care during intra- and immediate postpartum period at institutions especially at LRs needs improvement. Stress that simple easy way to do evidence based practices save lives. Give example of newborn care and relate it with need for resuscitation as mentioned in the pyramid of need for newborn care services.

- Explain that for QoC all evidence based practices should be performed in each care, in a timely manner and in a standardized way. Ask learners that do they agree that many activities are to be done by the provider while managing a labour process. Discuss that it is challenging that all activities are performed and also performed at the right time. So there is a need for a tool such as SCC which will help providers to remember what, when and how to perform all activities around the time of delivery.
- Conclude by saying that this training is focused on bare minimum lifesaving clinical skills to be performed during labour, delivery and immediate postpartum period. For this, WHO's SCC adapted by government of India is the recommended tool for providing essential and quality interventions and care during these critical times. The sessions in this training are according to the flow of practices in SCC.
- Summarize the session by eliciting from the learners key points discussed.
- Ask learners if they have any doubts and clarify them.

Key Messages

Summarize by stating the key points covered during the session.

- Most mortality is centered around intra- and immediate postpartum period
- Majority of the causes of maternal and neonatal deaths are preventable through the use of evidence based practices
- After JSY number of institutional deliveries have increased but reduction in MMR and IMR are not proportional to this increase so there is need to improve QoC in the labour rooms (LRs).
- SCC is a tool which helps to remember what, when and how to perform all activities during the time of delivery and immediate postpartum in a standardized way.

Presentation 1.3



Importance of Ensuring Quality Care in Labour Room

Learning Objectives

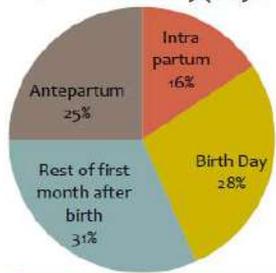
By the end of the session, learners will be able to:

- State the times when most mothers and newborns are dying
- List major preventable causes of maternal and neonatal deaths in labor rooms
- Explain the use of SCC as a tool for improving quality of care (QoC) and adhere to best evidence based practices


2

Timing of Maternal Deaths

Maternal mortality (0-29 million)



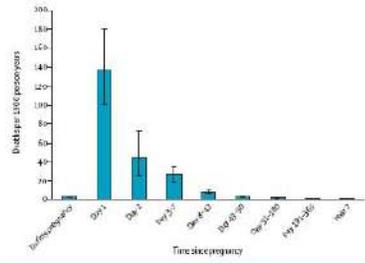


Figure 4: Mortality during pregnancy and by time since end of pregnancy in India, Bangladesh, Sri Lanka (reference 2). Boxes show 95% CI.

Problem Statement:
Most mortality is centred around delivery (intra and immediate postpartum period)

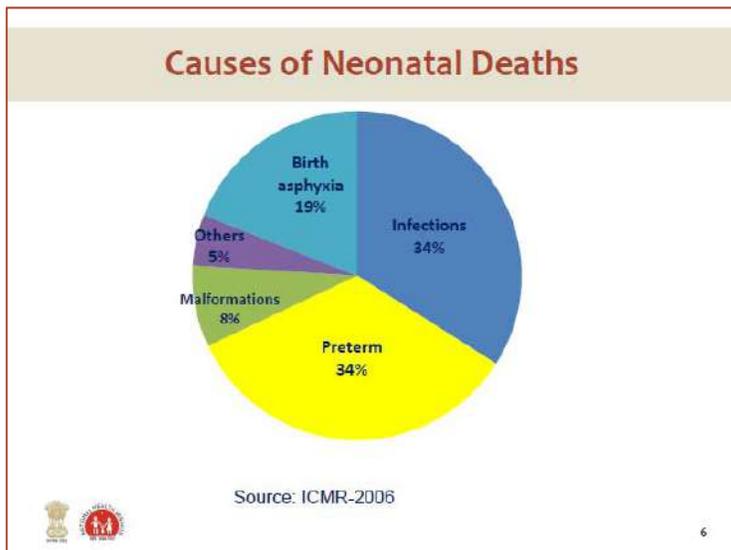
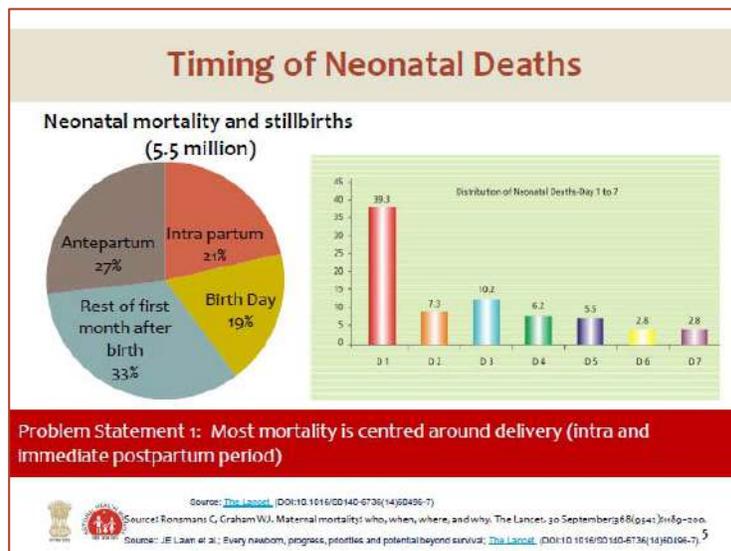
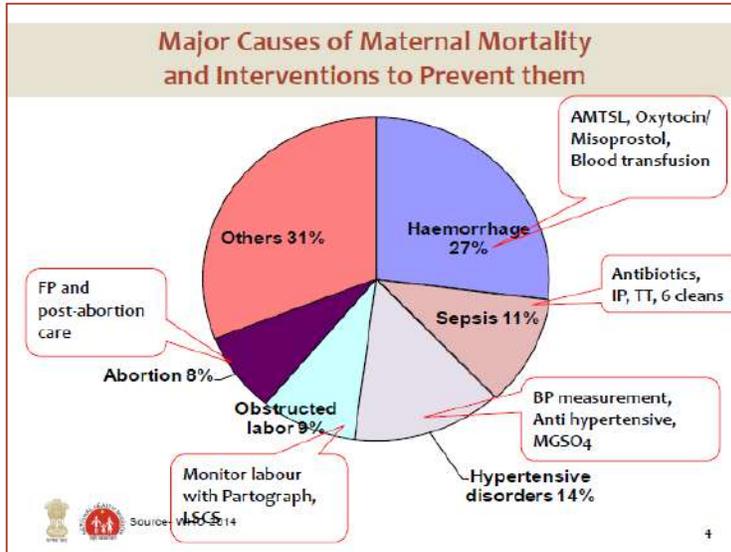


Source: [This report](#), (DOI:10.1016/S0143-9736(14)60456-7)

Source: Konnans C, Graham WJ. Maternal mortality: who, when, where, and why. The Lancet. 30 September 08;(9542):1169-200.

Source: JE Lawn et al., Every newborn, progress, priorities and potential beyond survival; [This report](#), (DOI:10.1016/S0143-9736(14)60466-7)

3

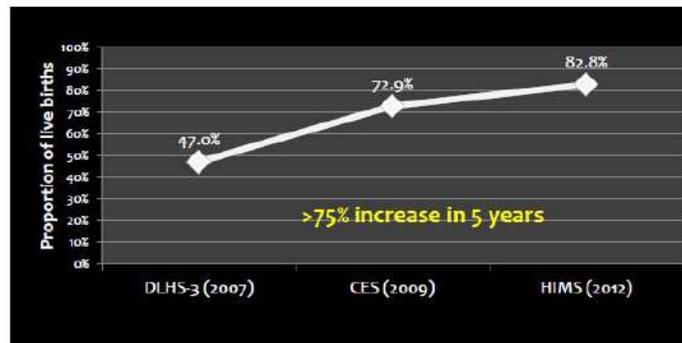


Where are women at the time of highest risk?



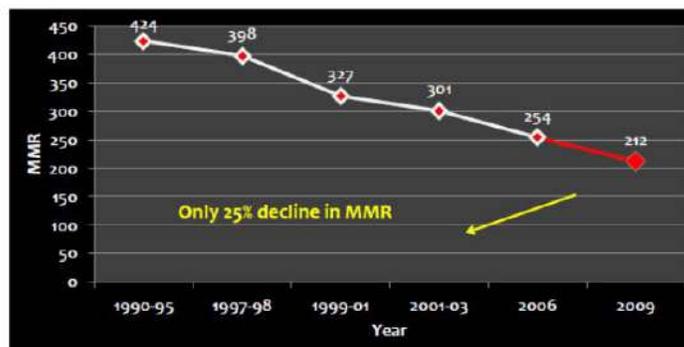
7

Our rates of institutional birth increased after JSY



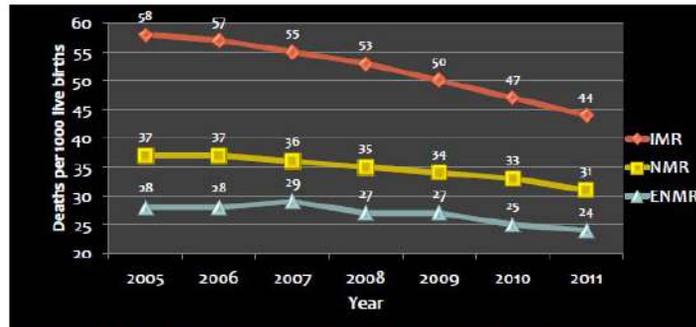
8

MMR declined but not proportionately



9

Decline in NMR is even slower

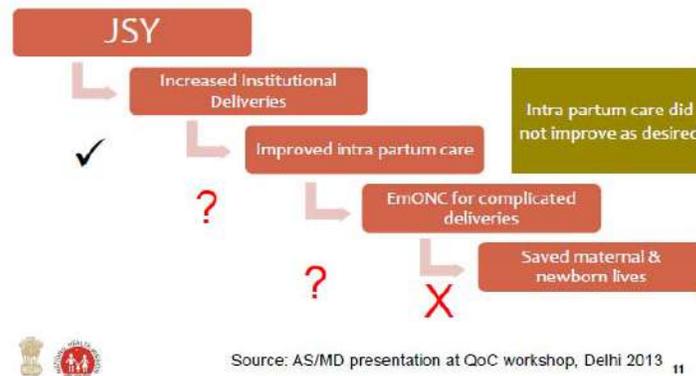


4 points decline in ENMR in comparison to 6 points decline in NMR and 14 points decline in IMR during corresponding period. This almost stagnant rate of ENMR indicates that more focus for care is needed on perinatal period.

10

What went wrong?

Expected result chain after JSY



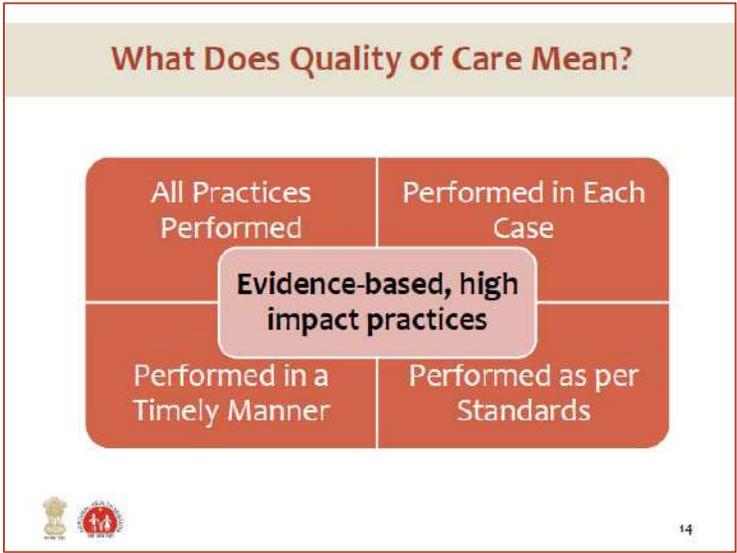
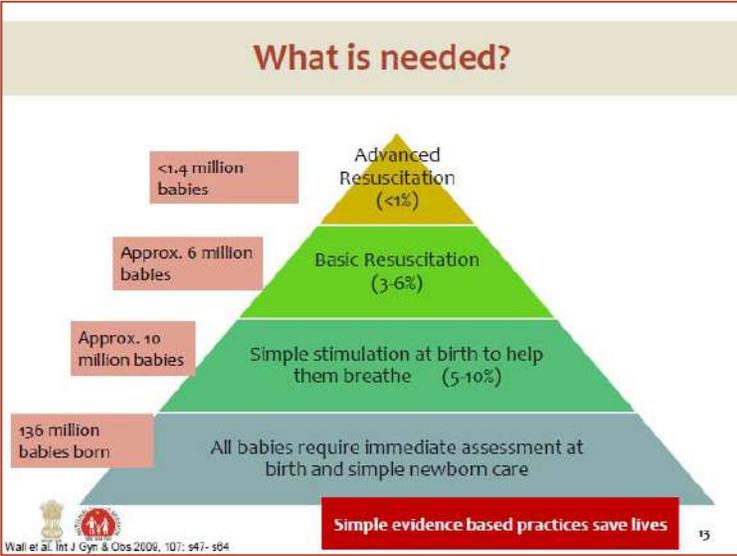
11

Context

- Intra and immediate postpartum period- period of highest risk for mortality for both mothers and newborns
- High rates of institutional births since the advent of NHM
- Reduction in maternal and neonatal mortality not commensurate with increase in institutional births
- Quality of care for intra and immediate postpartum period (care in labour rooms) at institutions needs improvement



12



This training aims to enable you to adhere to all safe care practices during labour

- Training is focused on bare-minimum life saving practices to be performed during childbirth
- Training introduces the Safe Childbirth Checklist (SCC) that will help you to:
 - **Know what essential actions need to be performed**
 - **Know when to perform these actions**
 - **Know how to perform these actions**
- Skill based sessions will help you build your capacity for essential interventions
- Job aids given are based on GoI guidelines and will help you in your day to day work
- Tips for organizing labor room will help you organize care better



16

Key Messages

- Most mortality is centered around intra and immediate post partum period
- Majority of the causes of maternal and neonatal deaths are preventable through the use of evidence based practices
- After JSY number of institutional deliveries have increased but reduction in MMR and IMR are not proportional to this increase so there is need to improve QoC in LRs
- SCC is a tool which helps to remember what, when and how to perform all activities during the time of delivery and immediate postpartum in a standardized way.



17

Session 1.4

Current Practices in Client Management in Labour Rooms at Worksite of Learners (flow of client care)

Duration: 20 minutes

Learning objectives

By the end of the session, the learners will be able to:

- List out different activities/practices they perform from admission till discharge at their facilities for all women in labour

Resources/materials needed

- Flip chart, flipchart stand, markers
- Notepad, pen
- Discussion guidance list for current practices

Pre-preparation of trainer

Familiarize the contents of the session including the discussion guidance list and memorize it prior to the session

Instructions

- Introduce the session by saying that we will now share the real situation at our labour rooms and discuss what can be done to improve the gaps.
- Ask the group what are the activities they perform at the hospital for a woman in labour from her admission till discharge? Don't intervene during the flow of the discussion. Also ascertain where each of these activities is being performed at the facilities.
- Note down good and harmful practices on a flip chart or a personal notepad.
- Summarize the session by telling the group that we will refer to these practices later during the training and reflect which good practices to continue and which harmful practices to work on so that they can be converted into good ones.

Session 1.5

Understanding Stages of Labour in Relation to Flow of Client Care

Duration: 10 minutes

Learning objectives

By the end of the session the learners will be able to:

- Define various stages of labour
- List the differences between true and false labour pains

Resources/materials needed:

- LCD projector, screen, laptop, extension board, power supply
- Presentation on stages of labour (PPT 1.5)
- Flip chart/white board with stand and markers

Instructions

- Use PPT 1.5 for this session. Introduce by saying that we will now discuss about the stages of labour and how does the woman move at the facility during various stages and present the objectives of the session.
- Ask the group or any one learner, the difference between true and false labour. Wait for the response and then, explain the differences between the two by showing the text and telling each point on the slide.
- Ask the group to define the stages of labour and describe the 4 stages of labour.
- Tell the important actions to be performed at each stage of labour.
- Discuss and relate these stages with the flow of client care discussed in the previous session according to the points mentioned.
- Summarize the session by eliciting key points.

Key messages

Summarize by stating the key points covered during the session.

- There are 4 stages of labour
- 1st stage starts from initiation of true labour pains till full dilatation of cervix
- 2nd stage is from full dilatation of cervix till delivery of baby
- 3rd stage is from delivery of baby till delivery of placenta
- 4th stage is upto 2 hours after delivery of placenta
- True labour pains are associated with changes in cervical condition
- Key actions in 1st stage is monitoring through partograph, 2nd stage is preparation and conducting delivery including essential newborn care, 3rd stage is AMTSL and 4th stage is to review the condition of mother and baby

Presentation 1.5



Stages of Labour

Learning objectives

By the end of the session the learners will be able to:

- Define various stages of labour
- List the differences between true and false labour pains
- Relate stages of labour with check points of SCC



2

Recognizing True Labour

True labour pains	False labour pains
Regular and predictable	Irregular
Felt first in lower back and sweeps towards lower abdomen	Remains confined to lower abdomen
Not relieved by rest	Often relieved by rest
Increase in duration, intensity and frequency with time	Does not increase in duration, intensity or frequency
“Show” blood stained mucus discharge present	“Show” absent
Accompanied by cervical changes	Not accompanied by cervical changes



3

Stages of Labour

First stage: From onset of labour pains till full dilatation of cervix. Has two parts:

- Latent Phase (maximum 8 hours)
 - Cervix dilatation < 4 cms
 - 2 or less contractions per ten minutes
- Active phase
 - Cervix dilatation > or = 4 cms
 - Contractions 3 or more per 10 min lasting >40 sec
 - Rate of cervical dilatation 1cm / hour or more



4

Stages of Labour

Second stage: From full dilatation of cervix till delivery of baby

- Full cervical dilatation
- Bulging thinned out perineum
- Gaping anus and vagina
- Head visible at the perineum

Third stage:

From delivery of baby to delivery of placenta

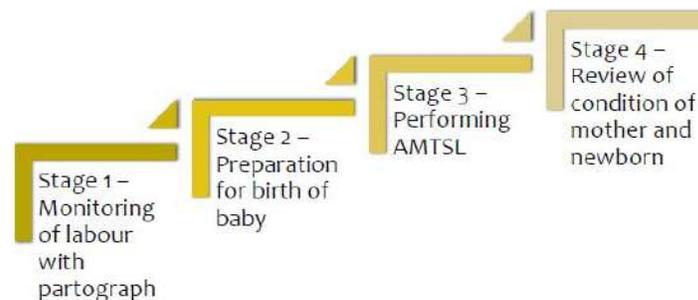
Fourth stage:

For 2 hrs. after delivery of the placenta



5

Key Actions associated with Stages of Labour



6

Key Messages

- There are 4 stages of labour
 - ✓ 1st stage starts from initiation of true labour pains till full dilatation of cervix
 - ✓ 2nd stage is from full dilatation of cervix till delivery of baby
 - ✓ 3rd stage is from delivery of baby till delivery of placenta
 - ✓ 4th stage is up to 2 hours after delivery of placenta
- True labour pains are associated with changes in cervical condition



Session 1.6

Introduction to the Safe Childbirth Checklist (SCC)- A Simple Tool to Improve Quality of Care

Duration: 30 minutes (10+20mins)

Learning Objectives

By the end of the session, learners will be able to:

- Define what is a checklist
- Describe the layout of the SCC
- Describe how various check points are arranged in SCC to improve QoC
- Explain how SCC will be helpful in improving services
- Relate stages of labour with check points of SCC
- Describe responsibilities of health providers to ensure effective use of SCC

Resources/materials needed

- LCD projector, screen, laptop, extension board, power supply
- Presentation on concept and components of SCC (PPT 1.6)
- Copies of SCCs one each for the learners and trainers

Instructions

- Use an interactive presentation 1.6 on the concept of the safe childbirth checklist. Introduce the session by saying that now we will get oriented to the SCC and present the objectives of the session.
- Ask learners to tell few examples of checklists used by them and how those checklist help them to perform.
- Ask the learners to take out the SCC from their folder. Show the checklist for the learners to identify the correct document to take out.
- Explain, that use of checklists help to remember the steps of complex activities and make it easy and safe.
- State that maximum risk in childbirth is during intra- and immediate postpartum period. QoC during childbirth is the key to their survival.
- Discuss that labour process is challenging and SCC helps service providers to remember what, when and how to perform the several activities timely and in a standardized way.
- Explain the layout of the safe childbirth checklist focusing on the importance of information on the left and right side of the pages and the 4 check points or pauses:
 - Check point 1-on admission
 - Check point 2-just before and during birth (or C-section)
 - Check point 3-within one hour after birth
 - Check point 4-before discharge from hospital

- Ask learners to read each point in turns so that each one can quickly go through the 4 check/pause points of the checklist. Explain that these points are the time for essential practices during various stages of childbirth related care.
- Link the SCC with four stages of labour and how to use it for providing quality care.
- Describe how service providers will use SCC at their facilities
- Summarize the session by giving key messages.

Key messages

Summarize by stating the key points covered during the session.

- Intra- and immediate postpartum period is the most risky period for mother and baby
- There are 4 check points or pause points in SCC related to the stages of labour with the key activities to be performed at each point
- SCC helps service providers remember key activities to perform timely and in a standardized way to improve quality of care during childbirth and immediate postpartum period.

Presentation 1.6



Safe Childbirth Checklist (SCC) Concept

Learning Objectives

By the end of the session, learners will be able to:

- Define what is checklist
- Describe the layout of the SCC
- Describe how various check points are arranged in SCC to improve QoC
- Relate stages of labour with check points of SCC
- Explain how SCC will be helpful in improving services
- Describe responsibilities of service providers to ensure effective use of SCC



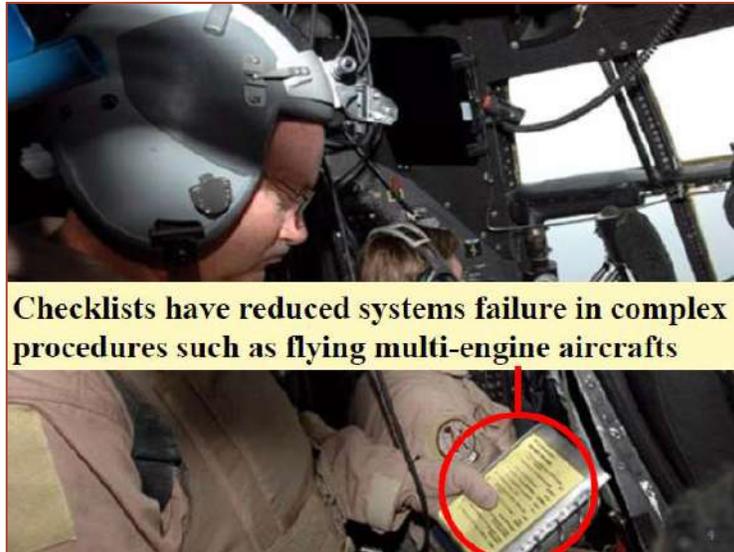
2

What is a checklist

- A tool which enables one to remember to perform all the essential actions one desires to perform in complex situations
- Examples of checklists? (participants)
 - 2 minutes 19 item surgical safety checklist
 - five-item checklist for central-line placement
 - Safe Childbirth Checklist (SCC)



3



Checklists have reduced systems failure in complex procedures such as flying multi-engine aircrafts



- ### Labour Process: Challenges
- Multiple stages, client may be at different places during different stages
 - Long duration, provider may change during the process
 - Multiple actions need to be performed
 - All actions need to be performed at appropriate times e.g.
 - ✓ Uterotonic should be given immediately after birth during third stage
 - ✓ Baby, if not crying spontaneously, should be revived within 1 minute of delivery
 - Complications can occur any time and in any case



The Safe Childbirth Checklist

- Is a tool focusing on essential practices for safe childbirth
- Aims to help the service providers to:
 - Know **what** essential activities need to be performed
 - Know **when** these essential activities need to be performed
 - Know **how** to perform these activities
- Breaks down the care process into 4 pause points or checks



7

What is a Pause Point/Check?

It is a time during the delivery process where the service provider can briefly stop and :

- Review the condition of the woman and the newborn baby
- Check whether he/she has performed all the essential activities for safe care
- Prepare for safe care activities that need to be performed next



**The Checklist Is Organized Around
4 Pause Points/Checks**

8

Check 1, On Admission

- This is the first contact of the mother with us. We can pause and review whether we have assessed mother properly, briefed the mother and companions about the process, and are prepared for her delivery in the facility
- If the mother's condition can not be managed in this facility, she can be referred



9

Check 2, Just Before and During Birth (or Cesarean)

- We can review our preparation for the delivery immediately before delivery, as we might not have time to look for necessary supplies when delivery is happening
- “Golden Minute” for the Baby, look for PPH for mother



10

Check 3, Soon After Birth (within 1 hour)

- The first hour after the delivery is important for both mother and babies as the mother is recovering after the delivery and the baby is transitioning from a life in the womb to that in the world
- We can pause at this time to review that mother and baby are fine and ensure practices such as breast feeding and skin to skin contact



11

Check 4, At Discharge

- The mother and baby are leaving from the facility and hence our constant supervision
- This is an important time to pause and review their condition before discharge and give appropriate follow up advice



12

How to Use the Checklist ?

- Perform activities as you routinely do
- At each pause point go through the checklist to check whether you have performed everything and in the correct manner
- Tick appropriate responses in the checklist
- Use the guidance given in the checklist to perform activities
- If you missed any critical action, perform it, and then check appropriate response in the checklist



13

Responsibilities- Medical Officers

- Encourage use of checklist for each delivery on the relevant pause point
- Encourage correct practices like appropriate use of drugs/antibiotics and proper following of clinical protocols (as per checklist)
- Motivate the staff for checklist use, provide hands on support where needed and solve problems
- Streamline the availability of Drugs, Supplies and consumables where required



Responsibilities- Nursing Staff

- Keep the provided checklists attached with each case sheet
- Keep the essential supplies related to checklist use ready for each delivery
- Follow checklist protocols for each delivery
- Record the actions taken for the relevant checks in SCC properly for each delivery
- Keep the case sheets and checklists safe for recording of data



Key Messages

- Intra- and immediate postpartum period is the most risky period for mother and baby
- There are 4 checks or pause points in SCC related to the stages of labour with the key activities to be performed at each point
- SCC helps service providers remember key activities to perform timely and in a standardized way to improve quality of care during childbirth and immediate postpartum period.



DAY ONE SESSION PLANS

Section Two Care at the Time of Admission

Session 1.7

Triaging based on History, Examination and Decision for Level of Care

Demonstration of critical assessment skills

- Correct estimation of gestational age
- Appropriate assessment of uterine contractions
- Localizing and appropriate recording of FHR
- Hand washing, wearing gloves
- Conducting PV examination and removing gloves

BP measurement, Hb estimation by Sahli's method, urine protein and sugar estimation by Uristix

Duration: 90 minutes

Learning objectives

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

- Explain triaging based on history taking and initial clinical examination into different categories
- Explain the importance of prompt referral after initial management
- List different conditions which need referral depending on the attending facility
- Demonstrate the correct technique for abdominal palpation, observing uterine contractions, localizing FHS and auscultating FHR on appropriate models using skills checklists
- Demonstrate hand washing, wearing gloves, conducting PV examination and removal of gloves on appropriate model using skills checklists
- Discuss the ways to estimate gestational age—fundal height, LMP and USG.
- List the key points for BP assessment, Haemoglobin estimation by Sahli's method, urine sugar and protein estimation by Uristix.

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source, external speakers
- Presentation on triaging for pregnant women (PPT1.7)
- Videos on BP assessment, HB estimation by Sahli's method, urine for protein and sugar estimation by Uristix
- Anatomic models-childbirth simulation model, simulation model for term and pre-term newborn; fetoscope/stethoscope, tray with cotton swabs in a bowl, antiseptic, sterile/HLD gloves to demonstrate PV examination
- SCC, checklists for abdominal examination, checklist for gestational age estimation, checklist for per-vaginal examination during first stage of labour, checklist for Hb estimation and checklist for BP recording.
- Posters on abdominal examination, BP measurement and Hb estimation by Sahli's method.

Pre-preparation by the trainer

- Prepare one station for abdominal examination and PV examination with trays, foetoscope, inchtape, gloves prior to the session for demonstrations of:
 - Abdominal palpation, FHS recording, wearing and removing gloves, correct technique of PV examination
- Ensure all material, supplies and training aids are available at the stations

Instructions

- Use presentation (PPT 1.7) for triaging. Introduce the session saying that in this session we will learn an important component in helping to make decision of client management. We will also see demonstrations and videos of some important and simple skills which will help in making the diagnosis of the woman and present the objectives of the session.
- Explain the definition of triaging and assessment of client in labour and designate into categories depending on action. Describe the 3 delays causing maternal deaths. Out of this 2nd delay is at identifying the high risk case and timely referral to higher facility for appropriate care. The 3rd delay is not getting prompt treatment at the facility. Triaging helps to address both these delays if the client is at the facility.
- Explain the flow of care of woman in normal labour and the one with some risk factor.
- Explain the importance of SCC in assessing the client for referral. Focus on the importance of referring client after appropriate initial management, with mention of clinical and management details on accompanying referral slip to the facility to which client was referred to. Ask one of the learners to read the danger signs in labour, in which prompt referral is needed after initial management depending on the health facility.
- Show the videos of how to take BP, estimate Hb, urine protein and sugar and highlight the key points for these procedures.
- Ensure the station for demonstration of skills mentioned above is ready. Demonstrate the skills with other supplies and checklists.
- Use posters to reinforce the skills.
- Summarize the session with key messages.

Key messages

Summarize by stating the key points covered during the session.

- Triaging is important to prevent the delay for referral based on history taking, examination and decision making for the level of care
- SCC is important in assessing the clients for referral. Refer the client to higher facility after initial management and with detailed referral slip
- Correct gestational age can be estimated by fundal height measurement, LMP and USG
- PV examination should be done after hand washing and wearing gloves on both hands
- BP checkup cuff should be tied above cubital fossa at the level of heart
- For Hb estimation reading in tube should be done at lower meniscus level
- For urine protein match color immediately after dipping in urine sample and for sugar match colour after 30 seconds

Presentation 1.7



TRIAGING PREGNANT WOMEN

Learning Objectives

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

- Explain triaging based on history taking and initial clinical examination into different categories
- Demonstrate the correct technique for abdominal examination of woman in labor on appropriate models using skills checklists
- Demonstrate hand washing technique, wearing and removal of gloves, pelvic examination
- Describe the importance and technique of BP measurement, hemoglobin estimation by Sahli's method, urine protein and sugar estimation using Uristix



2

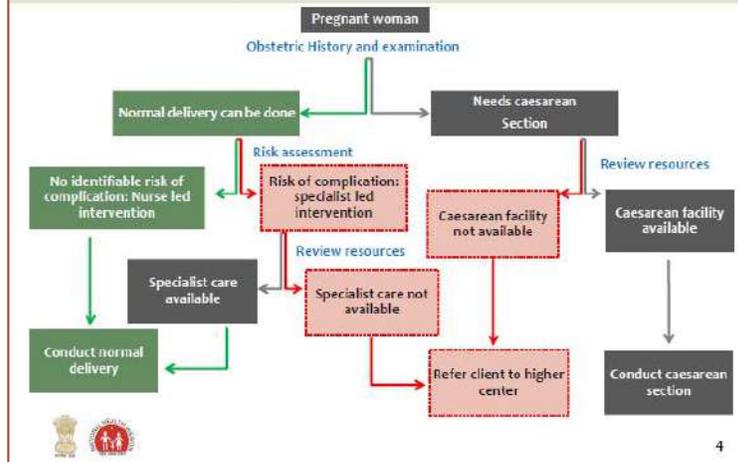
Triaging

- Three delays resulting in poor maternal outcomes are:
 - ✓ Delay in decision to seek care
 - ✓ Delay in transportation
 - ✓ Delay in initiating appropriate care at the facility
- Triaging is important to address third delay at the facility
- Triaging is classification of clients after initial assessment into categories based on action required
- Application into Labour process:
 - ✓ Conduct Initial assessment of the client based on obstetric history and obstetric examination
 - ✓ Designate into categories according to need
 - ✓ Review facility's ability to provide need based care
 - ✓ Designate into categories based on action



3

Triaging Pregnant Women



Key Messages

- Triaging Is Important to prevent the delay for referral based on history taking, examination and decision making for the level of care
- SCC is important in assessing the clients for referral.
- Correct gestational age can be estimated by fundal height measurement, LMP and USG
- PV examination should be done after hand washing and wearing gloves on both hands
- BP checkup cuff should be tied above cubital fossa at the level of heart
- For Hb estimation reading in tube should be done at lower meniscus level
- For urine protein match colour immediately after dipping in clean urine sample and for sugar match colour after 30 seconds



5

Session 1.8

Importance of Monitoring Vitals during Labour

Duration: 10 minutes

Learning objectives

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

- Explain the importance of monitoring vital signs-temperature, pulse, BP and respiratory rate in a mother
- Explain the importance of monitoring of vital signs-FHR, temperature and respiratory rate of a newborn

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on importance of monitoring vitals during labour (PPT 1.8)

Instructions

- Use PPT 1.8 for this session. Introduce the session by saying that we will now discuss the importance of assessing vital signs which you all do as a routine. Present the objectives of the session.
- Ask the learners, which vital signs do they record for mother and newborn and which all should be recorded.
- Explain the importance of recording temperature, pulse, respiratory rate and BP for screening different conditions in mother.
- Explain the importance of recording temperature, FHR and respiratory rate for screening different conditions in foetus and newborn.
- Summarize the session by the key messages.

Key messages

Summarize by stating the key points covered during the session.

- TPR and BP are the 4 vital signs which must be recorded to screen different conditions in mother
- FHR, temperature and respiratory rate are important to screen different conditions in baby
- Recording of vital signs helps to inform the provider about the condition of the mother or the newborn whether normal or not and also helps to identify any deviation in the condition if any one of these gets abnormal. This assessment helps to decide and provide intervention.

Presentation 1.8



Importance of Monitoring Vitals during Labour

Learning Objectives

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

- Explain the importance of monitoring of vital signs- temperature, pulse, respiratory rate and BP (TPR, BP) in mother
- Explain the importance of monitoring of vital signs- FHR, temperature and respiratory rate of newborn



2

Monitoring vitals for mother

S. No.	Vitals	Screening of conditions
1	Temperature	Hypothermia - shock Hyperthermia - fever, maternal exhaustion, infection/ sepsis
2	Pulse	Tachycardia - Shock, fever, maternal exhaustion, infection/ sepsis, anaemia, heart or respiratory disease
3	Respiratory rate	Tachypnoea - Shock, fever, maternal exhaustion, infection/ sepsis, anaemia, heart or respiratory disease
4	BP	Hypertension ($\geq 140/90$) - Hypertensive disorders of pregnancy Hypotension (Systolic < 90) - Shock



3

Monitoring vitals for newborn

S. No.	Vitals	Screening of conditions
1	Fetal Heart Rate	Fetal distress
2	Respiratory rate of newborn	Respiratory depression, breathing difficulty
3	Temperature of Newborn	Sepsis, hypothermia



4

Key Messages

- TPR and BP are the 4 vital signs which must be recorded to screen different conditions in mother
- FHR, temperature and respiratory rate are important to screen different conditions in baby
- Recording of vital signs helps to inform the provider about the condition of the mother or the newborn whether normal or not.



5

Session 1.9

Immediate Actions for Prevention of Major Complications in Mothers

- **Antibiotics for infection prevention and management**
- **Antenatal corticosteroids in pre-term delivery**
- **Antiretroviral therapy for HIV management**

Duration: 30 minutes

Learning objectives

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

- List the indications for antibiotics in mothers along with the types, doses and routes of administration
- Explain the need for antenatal corticosteroids (ANCS), type of corticosteroid, dose and when to administer
- Describe the need for antiretroviral therapy/prophylaxis in HIV +ve mother and PPTCT measures to prevent HIV transmission to baby

Resource/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on need for Antibiotics, ANCS and ART/ARP for mother (PPT 1.9)
- Safe childbirth checklist

Instructions

- Use presentation 1.9 for this session. Introduce the session by saying that prevention of complications in the mother and the baby is better and safer compared to curing the problem when it occurs. Present the objectives of the session.
- Explain that sepsis is one of the major causes of maternal deaths and morbidity and this can be prevented by simple measures during labour. Ask one learner to read indications for giving antibiotics to a woman in labour. Tell them GoI's recommendations for broad spectrum antibiotics, their doses and route of administration.
- State that preterm birth is a leading cause of neonatal deaths and these deaths can be prevented by simple measures like ANCS, thermal management, infection prevention and assisted feeding.
- Ask the learners how to estimate gestational age, then tell when and what type of corticosteroids to administer with the route and doses. Use job aid for providing ANCS. Ask another learner to read the need for giving corticosteroids and its dose from the SCC check point 1-on admission.
- Explain the need for antiretroviral therapy or prophylaxis to the mother depending on the status of HIV test. Describe different PPTCT measures to prevent HIV transmission from mother to baby. Ask one learner to read what to do regarding the HIV status of the mother from the SCC pause point 1-on admission.
- Summarize the session by key messages.

Key messages

Summarize the session by repeating the key points or asking the learners to state at least one key point each. Ensure they mention the following:

- Maternal sepsis a leading cause of maternal deaths can be prevented by timely administration of antibiotics in at-risk or suspected cases of infection during labour
- Preterm birth is a leading cause of neonatal deaths. These deaths can be prevented by giving ANCS to the mother and providing thermal care, assisted feeding of the baby and following infection prevention practices.
- Injection dexamethasone is preferred ANCS and is given at 24-34 weeks gestation with true preterm labour or conditions which need preterm delivery like pre-eclampsia, eclampsia and APH in dose of 6 mg IM 12 hours apart, total 4 doses.
- HIV testing should be done for all pregnant women and according to the result, antiretroviral therapy or prophylaxis must be given to pregnant or woman in labour.
- By following simple PPTCT measures HIV transmission can be prevented from mother-to-baby during labour and delivery.

Presentation 1.9



Need for Antibiotics, ANCS and ART/ARP for Mothers

Learning Objectives

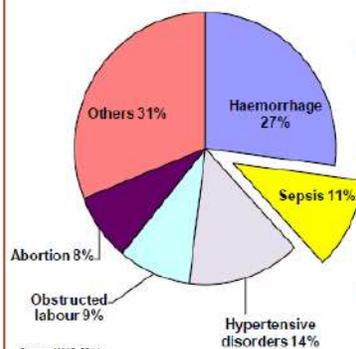
At the end of session, the learners will be able to:

- List the indications for antibiotics in mothers along with the types, doses and routes of administration
- Explain the need for antenatal corticosteroids (ANCS), type of corticosteroid, dose and when to give
- Describe the need for antiretroviral therapy/prophylaxis (ART/ARP) in HIV +ve mother and PPTCT measures to prevent HIV transmission to baby



2

Maternal Sepsis is One of Most Important Causes of Maternal Mortality – Globally and in India



Source- WHO 2014



Sepsis can be prevented by:

- Observing all infection prevention practices during delivery such as hand hygiene, six cleans etc.
- Limiting procedures in the birth canal such as PV examination (once in every four hours unless needed otherwise), exploration of uterus after delivery
- Appropriate use of antibiotics in suspected infection and for prophylactic use such as during caesarean section, MRP etc.

3

When Should Mother be given Antibiotics?

Indications for antibiotics-

- Fever (Temperature above 38°C/100.5°F)
- Foul smelling vaginal discharge
- Prolonged labour lasting more than 24 hours
- Obstructed labour
- Planned Caesarean section
- Lower abdominal tenderness after delivery
- Manual removal of placenta
- Preterm Pre-labour rupture of membranes (before 37 weeks)
- Prolonged rupture of membranes:
 - More than 12 hours without labour pain
 - More than 18 hours with labour pain



4

Recommended Antibiotic to Mother

Not very Sick Mother

Ampicillin 1 gm - 6 hourly oral
 Metronidazole 400mg - 8 hourly oral
 Gentamycin 80 mg, BD Intra Muscularly

Very Sick Mother

Ampicillin 1 gm - 6hrly Intravenous
 Metronidazole 500mg -IV 8 hourly
 Gentamycin 80 mg, BD Intra Muscularly

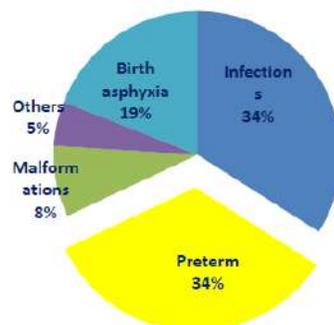
If mother is well enough to take oral medicine, administer drugs orally only



5

Preterm Birth is a Leading Cause of Neonatal Deaths in India

Causes of neonatal deaths



Deaths from prematurity and related complications can be avoided by:

- Ante natal corticosteroid to mother in true preterm labour after correct estimation of gestational age
- Thermal management including kangaroo mother care
- Assisted feeding if required
- Infection prevention



6

Antenatal Corticosteroids

- Estimation of correct gestational age is a critical function before administering ANCS
- For preterm labour between 24-34 weeks gestation give antenatal corticosteroids to mother for baby's lung maturity
- Antenatal corticosteroid therapy has maximal effect if the foetus is delivered 24 hours after the last dose and up to 7 days thereafter
- Partial effect is evident within a few hours before birth

Drugs and dosage

Injection Dexamethasone 6 mg intramuscularly, 12 hourly 4 doses
OR

Injection Betamethasone 12 mg intramuscularly, 24 hours apart 2 dose



7

Which corticosteroid should be given

- Dexamethasone is a more appropriate option and recommended over Betamethasone because
 - Easily available (included in WHO essential drug list)
 - Inexpensive
 - Heat stable (no need to refrigerate)
- **Oral Preparations of steroids are not to be used**
- ANCS have a role even if surfactant replacement is available
- Repeated courses/more frequent doses are not useful. Multiple courses in fact could have harmful neuro-developmental effects in the baby



8

When to give Antenatal Corticosteroid?

Indications

1. True preterm labour (between 24-34 weeks of gestation)
2. Conditions that lead to imminent delivery
 - Antepartum haemorrhage
 - Preterm premature rupture of membrane
 - Severe pre-eclampsia/Eclampsia



Contraindications

Frank Chorioamnionitis (absolute contraindication)

Signs and symptoms of chorioamnionitis

- H/O fever, lower abdominal pain
- Foul smelling vaginal discharge
- Tender uterus
- Maternal and foetal tachycardia

9

HIV in pregnancy and prevention of PPTCT

- Out of 27 million annual pregnancies in India, approximately 38,000 occur in HIV positive pregnant women
- In the absence of any intervention, an estimated cohort of 13,000 infected babies will be born annually
- HIV in pregnancy poses risk for both mothers and newborn
- PPTCT can be achieved by
 - A. ART initiation/continuation in mothers (life long ART)
 - B. ARV prophylaxis for newborns born to HIV+ve women
 - C. Safe delivery techniques in HIV +ve women
- Mothers should continue on ART lifelong if diagnosed during delivery



10

Prescribed Regimen for Newly Diagnosed or not on ART cases

For mother

Tenofovir (TDF) 300 mg
+
Lamivudine (3TC) 300 mg
+
Efavirenz (EFV) 600 mg once daily

For newborn

Infants born to HIV-infected mothers should receive syrup nevirapine immediately after birth to be continued till six weeks irrespective of breast feeding status

(extended to 12 weeks of syrup Nevirapine if the duration of the ART of mother is less than 24 weeks.)



11

HIV Status and Use of ART

Mother Tested for HIV? → No → Counsel and do HIV testing and manage accordingly

↓ Yes and HIV +ve

Already on ART	Continue lifelong ART irrespective of CD4 counts after admission
Not on ART	Start triple drug regimen Irrespective of CD4 counts or clinical stage as a life long therapy
If ART is not available at the facility	Refer to the centre with Integrated Counselling and testing Center (ICTC) facility for delivery If delivery is imminent, conduct delivery following Universal precaution and refer to ART centre after delivery

Ensure Safe delivery techniques during entire delivery process in all cases



12

Safe Delivery Techniques in HIV+ Pregnant Women

Observe the following in HIV+ woman:

- ✓ Standard/Universal Work Precautions (UWP)
- ✓ DO NOT rupture membranes artificially (ARM)
- ✓ Minimize vaginal examination and use aseptic techniques
- ✓ Avoid invasive procedures like foetal blood sampling, foetal scalp electrodes
- ✓ Avoid instrumental delivery
- ✓ Avoid episiotomy
- ✓ DO NOT perform routine suctioning of newborn

Key Messages

- Maternal sepsis a leading cause of maternal deaths can be prevented by timely administration of antibiotics in at-risk or suspected cases of infection during labour
- Preterm birth is a leading cause of neonatal deaths. These deaths can be prevented by giving ANCS to the mother and providing thermal care, assisted feeding of the baby and following infection prevention practices.
- Injection dexamethasone is preferred ANCS and is given at 24-34 weeks gestation with true preterm labour or conditions which need preterm delivery like pre-eclampsia, eclampsia and APH in dose of 6 mg IM 12 hours apart, total 4 doses.
- HIV testing should be done for all pregnant women and according to the result, antiretroviral therapy or prophylaxis must be given to pregnant or woman in labour.
- By following simple PPTCT measures HIV transmission can be prevented from mother-to-baby during labour and delivery.



Session 1.10

Prevention, Identification and Management of Pre-eclampsia and Eclampsia

Duration: 30 minutes

Learning objectives

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

- Define various terms in hypertensive disorders of pregnancy
- Describe supportive care of woman with eclampsia during a fit
- Describe the dose and route of administration of injection magnesium sulfate for the management of pre-eclampsia and eclampsia

Resources/materials needed

- Flip chart with markers/white board with markers, stand
- LCD projector, laptop, external speakers, screen, extension board and power source
- Presentation on Prevention, identification and management of pre-eclampsia and eclampsia (PPT 1.10)
- Safe childbirth checklist
- Video, SBA module 4 on Eclampsia
- Protocol poster for pre-eclampsia and eclampsia (PE/E)
- Checklist for administration of MgSO₄ at subcenter level and other facilities where woman can be admitted and observed

Instructions

- Use presentation (PPT 1.10) for this session. Introduce the session by asking, has any one seen a woman with fits during pregnancy? Let the learners answer. Ask what happened to her?
- Present learning objectives of this session.
- Explain that PE/E is the 2nd leading cause of maternal deaths. This can be prevented by focused antenatal care by checking BP, weight and urine protein examination at every antenatal visit by identification and timely administration of MgSO₄.
- Describe different terms and definitions in hypertensive disorders of pregnancy
- Describe the management of PE/E with antihypertensive drugs, anticonvulsant such as MgSO₄, continuous nursing care and delivery of baby. Explain that magnesium sulphate is not a drug to reduce hypertension but is an anti-convulsant and prevents fits which causes a lot of harm to the mother and the foetus. Stress that a woman with eclampsia should never be left alone. Supportive care during a fit is very important to prevent injuries to the woman.
- Present details of first dose, loading dose, maintenance dose, signs of toxicity and what to

do if they appear, how long to give MgSO₄ and what to do with recurrent fit and antidote for respiratory depression. Reinforce the message that MgSO₄ is a very safe, effective and life-saving drug and can be given safely even by ANM at subcenter.

- Explain that calcium supplementation after 1st trimester can reduce chances of PE/E
- Explain what should be done in case of recurrent convulsion
- Use GoI protocol posters on PE/E and SBA video module 4 on diagnosis and management of eclampsia to summarize your session
- Summarize the session by key messages.

Key Messages

Ensure these key messages are covered during the summary of the session:

- Pre-eclampsia/eclampsia is the major killer, deaths from which can be prevented through proper ANC and if this happens can be managed with timely administration of inj. MgSO₄
- Proper nursing care and timely administration of inj. MgSO₄ is the key in management of eclamptic case and can save lives of mothers and new-born
- MgSO₄ is a safe drug for mother and can be given comfortably without hesitation. Toxicity of MgSO₄ is very rare.
- At subcentre ANM can safely give first dose of 5 gms IM on each buttock (Total 10 gms) in both buttock and refer to higher facility for further management. She should write administered dose on referral slip explicitly and ensure that woman reaches higher center within 2 hours.

Presentation 1.10



Prevention, Identification and Management of Pre-eclampsia and Eclampsia

Learning Objectives

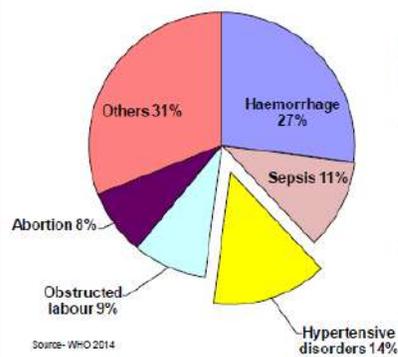
By the end of this session, the learners will be able to:

- Define various terms in hypertensive disorders of pregnancy
- Describe supportive care of woman with eclampsia during a fit
- Describe the dose and route of administration of injection magnesium sulphate for the management of pre-eclampsia and eclampsia



2

Pre-eclampsia/Eclampsia is the Second Leading Cause of Maternal Mortality – Globally and in India



Pre-eclampsia/Eclampsia can be prevented and managed by:

- Recording and monitoring of BP and urine protein examination of all labouring women
- Timely identification of danger signs
- Giving inj MgSO₄ in all mothers having Severe pre-eclampsia and Eclampsia



3

DIAGNOSIS

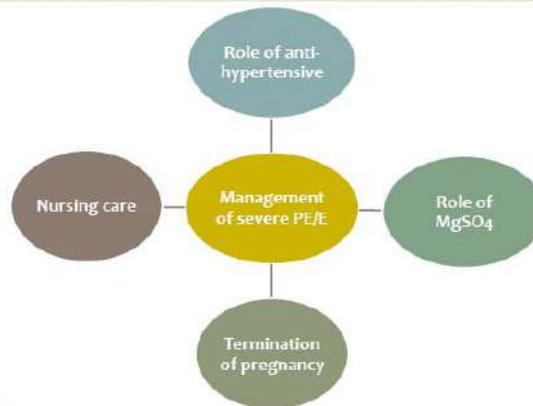
Headache, Blurring of vision, epigastric pain, oliguria, pulmonary oedema or abnormal oedema over face, hands, abdomen and vulva

DIAGNOSIS	HYPERTENSION (AFTER 20 WEEKS)	PROTEINURIA	SIGNS AND SYMPTOMS
GESTATIONAL HYPERTENSION	$\geq 140/90$	✗	✗
PRE-ECLAMPSIA	140/90 to <160/110	Trace OR 1+ OR 2+	✗
SEVERE PRE-ECLAMPSIA	140/90 to <160/110	Trace OR 1+ OR 2+	✓
SEVERE PRE-ECLAMPSIA	$\geq 160/110$	3+ OR 4+	✓ OR ✗
ECLAMPSIA	$\geq 140/90$	Trace OR 1+ OR 2+ OR 3+ OR 4+	Convulsion



4

Management of Severe PE/E



5

Role of Anti-hypertensive

- Anti - Hypertensive need to be given if Diastolic BP > 100 mm Hg (as per GoI protocol poster on Pre-Eclampsia)
- Tab Alpha-Methyl Dopa or tab Labetalol can be used for controlling BP
- Target should be to maintain diastolic BP between 90-100 mm Hg
- In case of severe Pre eclampsia, use of tab Nifedipine or Inj. labetalol is recommended for initial control of BP



6

Role of Magnesium Sulphate

Diagnosis	To Give MgSO ₄ or Not	Role
PRE-EXISTING/ (without proteinuria)	✗	NA
PRE-ECLAMPSIA	✗ Prevention of progression to Eclampsia	NA
SEVERE PRE-ECLAMPSIA	✓	Prevention of progression to Eclampsia
ECLAMPSIA	✓	Management of convulsions



7

Magnesium Sulfate Dose

MgSO₄ (50% solution) 1 Ampoule = 2 ml = 1 gm

At lower level centres where IV dose can not be given

IM Loading Dose

5 Ampoules of MgSO₄ (10ml) Load in 10ml Syringe Administer deep IM in one buttock eg. Right buttock

AND

5 Ampoules of MgSO₄ (10ml) Load in another 10ml Syringe Administer deep IM in Left buttock

PATIENT SHOULD BE TRANSPORTED TO FRU WITHIN 2HRS

At FRU

IV Loading Dose (20 ml – 20% sol. – slow IV)

4 Ampoules of MgSO₄ (8ml) & 12 ml NS Load in 20ml Syringe Slow IV over 5-10 minutes

Always give RL drip to pregnant women at the rate of 30ml/hour with MgSO₄

Magnesium Sulfate Dose

Patient coming/admitting directly to FRU

IV Loading Dose

4 Ampoules of MgSO₄ (8ml) + 12 ml NS Load in 20ml Syringe Slow IV over 5-10 minutes

IM Loading Dose

5 Ampoules of MgSO₄ (10ml) Load in 10 ml Syringe Administer deep IM in one buttock eg. Right buttock

AND

5 Ampoules of MgSO₄ (10ml) Load in another 10ml Syringe Administer deep IM in Left buttock

Always give RL drip to pregnant women at the rate of 30ml/hour with MgSO₄

MgSO₄ – Maintenance Dose

IM Maintenance Dose

 = 5 Ampoules of MgSO₄ = 10ml = 5gm

Give Deep IM in One buttock every 4 hourly after looking 3 signs of toxicity (knee jerk, urine output and respiratory rate)



10

Magnesium Sulphate is a Safe Drug to Use

- GoI recommends use of magnesium sulphate by nurses in cases of severe pre eclampsia and eclampsia (first dose)
- Magnesium sulphate is a very safe drug and can be easily used with monitoring of toxicity signs
- Toxicity signs:
 - ✓ Absent knee jerk (DTR)
 - ✓ Urine output less than 25 to 30 ml/hour
 - ✓ Respiratory rate <16/minute
- Even in case where any sign of toxicity is seen, generally withholding the next dose is sufficient to address it
- Antidote may only be needed in case of respiratory toxicity which is very rare at the usual recommended doses with close monitoring
- Give antidote – Inj. Calcium gluconate 10 ml 10 % in 10 minutes slow IV for respiratory toxicity.

11

MgSO₄ – Maintenance Dose

Timeline	Look for Signs of Toxicity Look for following values			Action
	Knee Jerk	Urine Output-100-120 ml/4hrs	Respiratory rate-16/min	
19/12/14	AT 6 AM Loading Dose Given			
	AT 8 AM Delivery Conducted			
10 AM	✓	✓	✓	Give 1st Maintenance dose
2 PM	✓	✓	✓	Give 2nd Maintenance dose
6 PM	✓	✓	✓	Give 3rd Maintenance dose
10 PM	✓	✓	✓	Give 4th Maintenance dose
20/12/14 2 AM	✓	✓	✓	Give 5th Maintenance dose
6 AM	✓	✓	✓	Give 6th Maintenance dose

Maintenance dose of MgSO₄ to be continued till 24 hours (every 4th hourly) after delivery or the last convulsion whichever occurs later

Always give RL drip to pregnant women at the rate of 30ml/hour with MgSO₄

MgSO₄ – Maintenance

Always give RL drip to pregnant women at the rate of 30ml/hour with MgSO₄

Timeline	Look for Signs of Toxicity Look for following values			Action
	Knee Jerk	Urine Output: 100-120ml/4hrs	Respiratory rate: >16/min	
19/12/14	AT 6 AM Loading Dose Given			
	AT 8 AM Delivery Conducted			
10 AM	✓	✓	✓	Give 1st Maintenance dose
	AT 11 AM Re-convulsions occur			
2 PM	✓	✓	✓	Give 2nd Maintenance dose
6 PM	✓	✓	✓	Give 3rd Maintenance dose
10 PM	✓	✓	✓	Give 4th Maintenance dose
20/12/14 2 AM	✓	✓	✓	Give 5th Maintenance dose
6 AM	✓	✓	✓	Give 6th Maintenance dose
10 AM	✓	✓	✓	Give 7th Maintenance dose

MgSO₄ – Maintenance Dose

Always give RL drip to pregnant women at the rate of 30ml/hour with MgSO₄

Timeline	Look for Signs of Toxicity Look for following values			Action	Dosage
	Knee Jerk	Urine Output: 100-120 ml/4hrs	Respiratory rate: >16/min		
19/12/14	AT 6.00 AM - Loading dose				In Right Buttock or ALT or tibia tibia
	AT 8.00 AM - Delivery				
10 AM	✓	✓	✓	Give 1st Maintenance dose	
2 PM	✗	✓	✓	SKIP THE 2nd MAINTENANCE DOSE	
6 PM	✓	✓	✓	Give 3 rd Maintenance dose	
10 PM	✗	✗	✓	SKIP THE 4th MAINTENANCE DOSE	
20/12/14 2 AM	✗	✗	✗	Give Calcium Gluconate 10 ml of 10 % in 10 minutes slow IV (10-10-10) and Skip the 5th Maintenance dose	
6 AM	✓	✓	✓	Give 6 th Maintenance dose	

To Terminate the Pregnancy or Not

If she is already in labour, let her progress in labour

DIAGNOSIS	Pregnancy of <23 Weeks	Pregnancy of 24-34 Weeks	Pregnancy of 35-36 Weeks	Pregnancy of >37 Weeks
GESTATIONAL HYPERTENSION	✗	✗	✗	✓
MILD PRE-ECLAMPSIA	✗	✗	✗	✓
SEVERE PRE-ECLAMPSIA	✓	If unstable, give antenatal corticosteroids and terminate within 24hrs ✗ If stable	If unstable, do not give antenatal corticosteroids and terminate within 24hrs ✗ If stable	✓
ECLAMPSIA	✓	✓	✓	✓

In all cases of eclampsia terminate pregnancy within 12 hrs

To Identify What Nursing Care Needed

DIAGNOSIS	Pregnant Women Scenario (Irrespective of gestational age)	Nursing Care require	Description
GESTATIONAL HYPERTENSION	Presenting in Labour	✓	Admit and treat as per progress of labour
	Presenting Without Labour	✗	Follow up in OPD once a week
MILD PRE-ECLAMPSIA	Presenting in Labour	✓	Admit and treat as per Progress of labour
	Presenting Without Labour	✗	Follow up in OPD twice a week
SEVERE PRE-ECLAMPSIA	Presenting in Labour	✓	Admit and give MgSO ₄ & do needful
	Presenting Without Labour	✓	Admit and give MgSO ₄ & do needful
ECLAMPSIA	Presenting in Labour	✓	Stabilize convulsions, position in left lateral, Mouth gag, Do suctioning, clear secretions, Start oxygen, catheterize, give MgSO ₄ & terminate pregnancy within 12 hrs.
	Presenting Without Labour	✓	

Calcium Supplementation for Prevention of Pre-Eclampsia/Eclampsia (PE/E)

- WHO recommends calcium supplementation for prevention of PE/E in populations whose diets are deficient in calcium

GoI recommendations

- Every woman would be given calcium supplementation for 6 months during ANC period after 1st trimester and for 6 months during lactation.
- Two calcium tablets would be given daily
- Each tablet shall contain 500mg elemental Calcium and 250 IU Vitamin D₃
- To be implemented at all levels of contact of the pregnant women with the health system.



17

Key Messages

- Pre-eclampsia/Eclampsia is the major killer, deaths from which can be prevented through proper ANC and if this happens can be managed with timely administration of inj. MgSO₄
- Proper nursing care and timely inj. MgSO₄ administration is key in management of eclampsia case
- MgSO₄ is a safe drug for mother and can be given without hesitation. Toxicity of MgSO₄ is very rare.
- At sub Centre ANM can safely give first dose of 5-5 gms deep IM on each buttock and refer to higher facility for further management.



18

Session 1.11

Monitoring the Progress of Labour–Plotting and Interpreting Partograph

Duration: 60 minutes

Learning objectives

By the end of the session, the learners will be able to:

- Describe the significance of using partograph in monitoring the progress of labour
- Describe the frequency of recording different parameters during labour
- Plot the case study findings and interpret the filled partograph for timely decision

Resources/materials needed

- Simplified Partograph (3' x 4') on flex
- Whiteboard, stand, markers and duster
- Blank simplified partograph, 5 copies
- Copies of three case studies present in the folder of the learners
- Pencil, eraser and sharpener
- LCD projector, screen, laptop, extension board, power source
- Presentation on partograph (PPT 1.11)

Instructions

- Display enlarged flex partograph on a wall from where all learners can see it clearly. Use PPT 1.11 to demonstrate and explain plotting and interpretation of partograph.
- Introduce the session by saying that monitoring labour for its progress is a critical activity which the service provider must perform carefully and be alert to any deviations from normal so that prompt decision for action can be taken for appropriate care. By doing this a lot of problems leading to maternal and newborn deaths can be prevented. You all must be aware of this graphic tool which is the partograph and government is providing these to all health facilities which are the delivery points.
- Present the session objectives.
- Explain that partograph like SCC, is a very good tool to record the progress of labour and get an idea of the wellbeing of the mother and the baby and also the condition of uterine contractions and cervical dilatation. It is a clinical decision making tool that helps in early identification of foetal and maternal problems and progress of labour. Monitoring of active phase of first stage of labour is recorded on the partograph. It is very important to fill the partograph correctly so that correct interpretation of the progress of labour can be made. Today we will learn and discuss about how to fill and interpret the partograph.
- Show the different sections on the flex partograph to make the learners familiar with what is to be asked or observed and recorded. Draw the attention of the learners to the lines and boxes on the partograph and explain their significance and the difference of the short and long lines in the section of time. Tell them the significance of the duration between any two

lines is half an hour and the long line in the time column indicates the time line at one hour interval starting from the time the woman was observed in active labour. The time plotting on the partograph will start from this time and it will be written on the right of the long line where the line of cervical dilatation meets the alert line.

- Tell the significance of the two dark lines in the section of FHR and cervical dilatation. Tell how to mark the different parameters like dots or cross lines and join them with their previous recording to show the pattern. Tell that BP is marked with a line with arrow heads at both ends. Explain how to plot the contractions and record them to show their number and duration.
- Describe the plotting of identification data, foetal conditions (FHR and colour of liquor), progress of labour (cervical dilatation and uterine contractions) and maternal conditions (BP, pulse and temperature).
- Explain that FHR, colour of liquor, uterine contractions and maternal pulses should be observed and recorded every half hourly and cervical dilatation by PV, BP and temperature should be observed and recorded every four hourly.
- Stress that the most critical step in starting the recording on the partograph is plotting of first record of cervical dilatation at alert line.
- Explain the deviations in plotting of different items by which the service provider can make decisions
- Explain that normal FHR will be between the two dark lines and the normal cervical dilatation should be either on or to the left of the alert line. If it crosses the alert line to the right it indicates slow cervical dilatation or obstructed labour and the woman should be delivered before the cervical dilatation crosses the action line. There is a difference of four hours between the two lines which are enough for the woman to reach a functional FRU for further care. For normal progress, the uterine contractions should increase in numbers and duration. Present the slide to give a visual impression of completed partograph of case study-1.
- Ask the learners to take out the set of three case studies with blank simplified partographs from their folders.
- Ask learners to plot case study-2 and the trainers will roam between them to facilitate them if they face any difficulty and help them plot and correct it with explanation if there is any mistake. If there is shortage of time the case studies 2 and 3 can be given as home assignment to be completed and discussed the next day during the recap session.

Discuss the interpretation and indications for referral

- If the FHR is less than 120 or more than 160 beats per minute
- If there is meconium and or blood stained amniotic fluid
- When the cervical dilatation plotting crosses the alert line towards its right
- If the contractions do not increase in duration, intensity and frequency
- If the maternal pulse becomes more than 100 per minute, BP is more than 140/90 mmHg or temperature rises more than 38°C
- Summarize session by giving key messages.

Key messages

Summarize the session by saying that

- Labour process should be plotted on the partograph during the active stage when cervical dilatation is 4 cms or more
- FHR, status of membranes and amniotic fluid uterine contractions and pulse are recorded every half an hour
- Cervical dilatation, BP and temperature are recorded every 4 hours
- Correctly filled partograph helps to identify any abnormality early and helps to decide appropriate care or referral

Home Assignment

Give case study-3 as home assignment to be checked next morning

Presentation 1.11



Partograph

Learning Objectives

By the end of the session, the learners will be able to:

- Describe the significance of using partograph in monitoring the progress of labour, fetal and maternal condition
- Describe the frequency of recording different parameters during labour
- Plot the case study findings and interpret the filled partograph for decision making



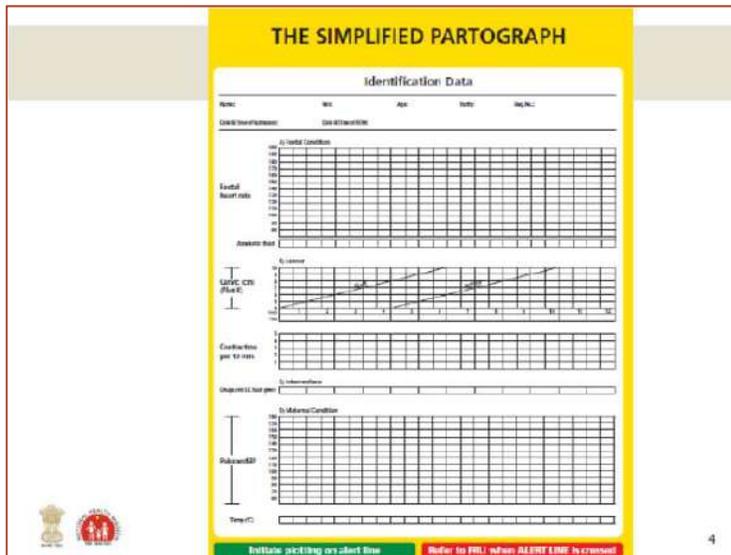
2

What is a Partograph?

- Partograph is the most important tool for health workers at any level to assess the progress of labour and take appropriate actions
- Graphic recording of the progress of labor and condition of mother and fetus
- Labor record , thus reduces paper work
- Partograph is applicable for the active phase of first stage of labour i.e., from cervical dilatation ≥ 4 cm to full dilatation of cervix



3



Plotting a Partograph

Identification data

- Name
- Age,
- Parity,
- Date and time of admission
- Registration number;
- Time of rupture of membranes.

THE SIMPLIFIED PARTOGRAPH

IDENTIFICATION DATA

Name: _____ Sex: _____ Age: _____ Parity: _____ Reg. No.: _____

Date & Time of Admission: _____ Date & Time of ROM: _____

A) Fetal Condition

Fetal Heart rate (b/min)

Alert line



Plotting a Partograph

Fetal Condition

- Count fetal heart rate every 30 minutes
- Count for one full minute, immediately following a uterine contraction
- Fetal distress: FHR <120 beats/minute or >160 beats/minute

Arrange for referral

THE SIMPLIFIED PARTOGRAPH

IDENTIFICATION DATA

Name: _____ Sex: _____ Age: _____ Parity: _____ Reg. No.: _____

Date & Time of Admission: _____ Date & Time of ROM: _____

A) Fetal Condition

Fetal Heart rate (b/min)

Alert line



Plotting a Partograph

Record status of membranes and amniotic fluid color every half hourly in Partograph as follows:

- Membranes intact (mark 'I')
- Blood stained (mark 'B')
- Clear liquor (mark 'C')
- Meconium stained liquor (mark 'M')

Use sterile perineal pad to look for colour of liquor and status of membrane

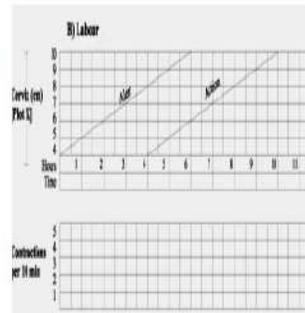


7

Plotting a Partograph

Labor

- Begin plotting in active labor
- Cervical dilatation > 4 cm and > 2 contractions / 10 minutes
- **Always plot initial finding at Alert line.** Note the time.
- Repeat P/V after 4 hours and plot the cervical dilatation
- In active phase cervical dilatation should be 1 or more than 1 cm/ hour.



8

Plotting a Partograph

Chart the contractions every half an hour

- Number of contractions in 10 mins
- Duration in seconds.
 - Less than 20 seconds 
 - Between 20 and 40 seconds 
 - More than 40 seconds 

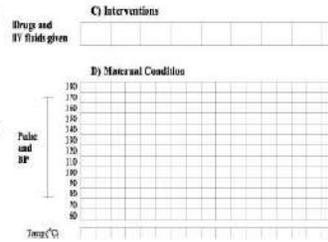


9

Plotting a Partograph

Maternal Condition

- Record maternal pulse every half hour and mark with a dot (.)
- Record maternal BP every 4 hours using a vertical arrow, with upper end signifying systolic BP and lower end diastolic BP
- Record the temperature every 4 hours and note on temperature graph

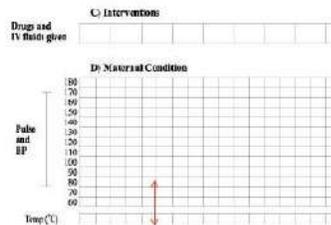


10

Plotting a Partograph

Interventions

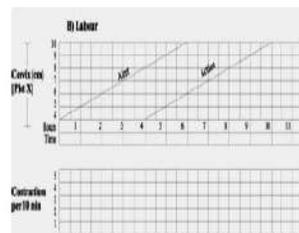
- Mention dose, route and time of administration of any drug and IV fluid given before delivery



11

Interpreting a Partograph

- If **Alert line** is crossed (the plotting moves to the right of the alert line) it indicates abnormal labour : prolonged/ obstructed labour
- Note the time
- Refer patient to FRU**
- Send partograph with patient



12

Interpreting a Partograph

- Crossing of the **Action line** (the plotting moves to the right of the Action line) : indicates the need for intervention
- By the time the action line is crossed the woman should ideally have reached the FRU for the appropriate intervention to take place



13

What are the Indications for Referral to FRU – Interpretation of Partograph for timely referral

- FHR is <120 beats / min or >160 beats / min
- Meconium and /or blood stained amniotic fluid
- When cervical dilatation plotting crosses the alert line (moves towards the right side of the alert line)
- Contractions not increasing in duration, intensity and frequency e.g. 2 or less contractions lasting for <20 sec in 10 min



14

Key Messages

- Labour should be plotted on the partograph during the active stage when cervical dilatation is 4 cms or more
- FHR, status of membranes and amniotic fluid uterine contractions and pulse are recorded every half an hour
- Cervical dilatation, BP and temperature are recorded every 4 hours
- Correctly filled partograph helps to identify any abnormality early and helps to decide appropriate care or referral



15

PARTOGRAPH – CASTE STUDY 1

Radha (wife of Gangaram), 26 years of age, third gravida, was admitted at 5:00 am on 11 June 2009 with the complaint of labour pains since 2:00 am. Her membranes had ruptured at 4:00 am. She has two children of the ages of 5 and 2 years. On admission, her cervix was 2 cm dilated.

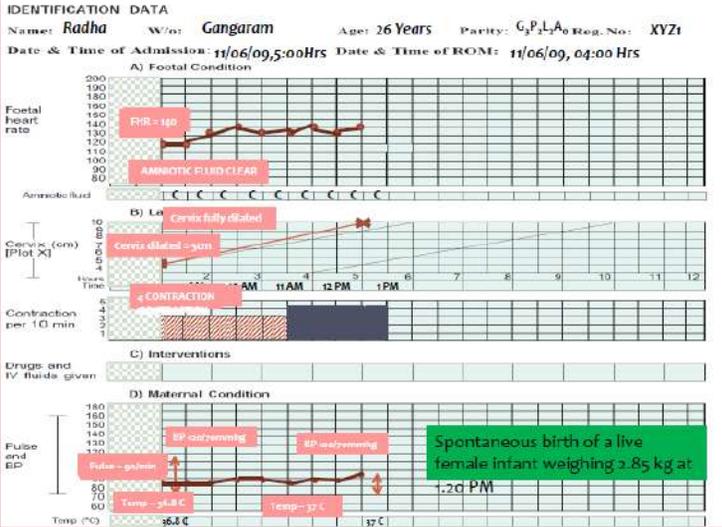
Plot the following findings on the partograph:

- At 09:00 am:
- The cervix is dilated 5 cm.
 - She had 3 contractions in 10 minutes, each lasting 30–40 seconds.
 - The FHR is 120 beats per minute.
 - The membranes have ruptured and the amniotic fluid is clear.
 - Her BP is 120/70 mmHg.
 - Her temperature is 36.8°C.
 - Her pulse is 80 per minute.
- 9:30 am: FHR 120, contractions 3/10 each 30 seconds, pulse 80/minute, amniotic fluid clear
 10:00 am: FHR 136, contractions 3/10 each 35 seconds, pulse 80/minute, amniotic fluid clear
 10:30 am: FHR 140, contractions 3/10 each 40 seconds, pulse 88/minute, amniotic fluid clear
 11:00 am: FHR 130, contractions 3/10 each 40 seconds, pulse 88/minute, amniotic fluid clear
 11:30 am: FHR 136, contractions 4/10 each 45 seconds, pulse 84/minute, amniotic fluid clear
 12:00 noon: FHR 140, contractions 4/10 each 45 seconds, pulse 88/minute, amniotic fluid clear
 12:30 pm: FHR 130, contractions 4/10 each 50 seconds, pulse 88/minute, amniotic fluid clear
 1:00 pm: FHR 140, contractions 4/10 each 55 seconds, pulse 90/minute, temp 37°C, BP 100/70, amniotic fluid clear
- At 1:00 pm:
- Cervix fully dilated
 - Amniotic fluid clear and BP 100/70 mmHg
- 1:20 pm: Spontaneous birth of a live female infant weighing 2.85 kg.



16

THE SIMPLIFIED PARTOGRAPH



Session 1.12

Principles of Timely Identification and Management of Prolonged and Obstructed Labour

Duration: 30 minutes

Learning objectives

At the end of this session, learners will be able to:

- State the definitions of engagement, prolonged and obstructed labour in relation to the expected duration of normal labour
- Explain partograph findings in diagnosing prolonged and obstructed labour
- Discuss symptoms, signs and management of prolonged and obstructed labour
- Explain indications and contraindications for augmentation of labour

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on prolonged or obstructed labour (PPT 1.12)
- Case scenarios and filled partograph for prolonged and obstructed labours

Instructions

- Use presentation (PPT 1.12) for this session. Introduce the session by saying that during the session on current practices at the health facility for managing labour, we had mentioned about augmentation of labour. Today we will discuss about prolonged and obstructed labour, their signs and symptoms and how to identify them from the partograph. We will also discuss about the indications of rational use of augmentation of labour and present the objectives of the session.
- Explain that obstructed labour is one of the important causes of maternal deaths. This can be prevented by proper obstetric examination, use of partograph to monitor labour and timely decision for any problem.
- Describe definitions of prolonged and obstructed labour.
- Present the case scenario of prolonged labour and its filled partograph. Facilitate learners to interpret the findings on the partograph. Describe various factors which influence delivery process (in terms of power, passage and passenger).
- Present the scenario for obstructed labour with its completed partograph. Facilitate the learners to interpret the findings and make a decision on what action to take.
- Explain the complications associated with prolonged and obstructed labour for mother and baby.
- Explain different terms in abnormal progress of labour-inadequate uterine activity, prolonged labour and obstructed labour.
- Describe the symptoms, signs, diagnosis and management of prolonged latent phase, active phase and expulsive phase of labour.

- Explain about the symptoms, signs, diagnosis of obstructed labour through proper history taking, general, abdominal and pelvic examination and its management.
- Explain the symptoms and signs of ruptured uterus which is a life threatening complication of obstructed labour and describe how to diagnose obstructed labour by partograph findings.
- Explain that augmentation should be done only in indicated cases and at centers equipped for care by specialists. Explain indications and contraindications for augmentation. Discuss that augmentation should only be done under expert medical guidance and should not be done as a routine due to its harmful effects on the progress of labour and the mother and foetus.
- Summarize the session by key messages.

Key messages

Summarize by stating the key points covered during the session.

- Obstructed labour is one of the important causes of maternal deaths
- Partograph helps to identify any deviations from normal in foetal and maternal condition and progress of labour early
- Prolonged and obstructed labour may lead to complications for mother and baby
- Augmentation should only be done in indicated cases and at equipped centers under expert medical guidance
- Prolonged and obstructed labour should be diagnosed early and managed promptly to prevent complications and adverse maternal and foetal outcomes

Presentation 1.12



Prolonged and Obstructed Labour

Learning Objectives

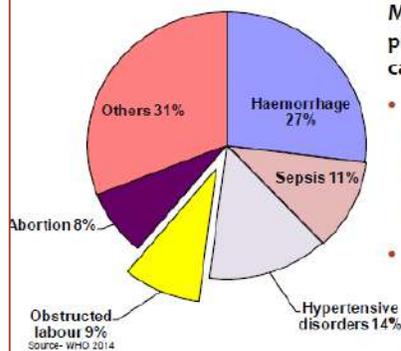
At the end of this session, learners will be able to:

- State the definitions of prolonged and obstructed labour in relation to the expected duration of normal labour
- Interpret partograph findings to diagnose prolonged and obstructed labour
- Discuss symptoms, signs and management of prolonged and obstructed labour



2

Obstructed labour is One of the Most Important Causes of Maternal Mortality



Mortality and morbidity from prolonged and obstructed labour can be reduced by

- Appropriate obstetric examination before and during labour to rule out Cephalo Pelvic Disproportion (CPD) and malpresentations
- Proper monitoring of progress of labour through partograph
- Timely decision making for interventions



3

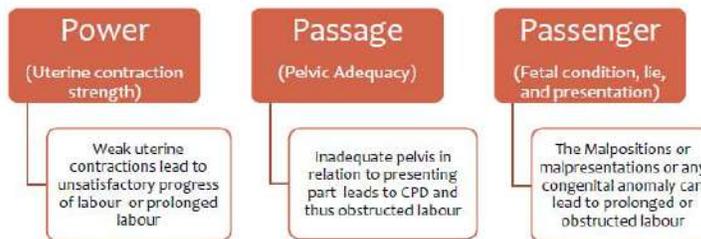
Definitions

- **PROLONGED LABOUR**- After onset of regular, rhythmical painful contractions accompanied by cervical dilation i.e. true labour where labour is longer than 24 hours.
- **OBSTRUCTED LABOUR**- Means in spite of strong uterine contractions, the foetus cannot descend because of mechanical factors due to fetal or maternal reasons; at the inlet, within cavity or outlet.



4

Factors Influencing Delivery Process- PPP



Malpositions: are abnormal position of the vertex of the foetal head (with occiput as the reference point) relative to the maternal pelvis.

Malpresentations: of the fetus are all presentations other than vertex



5

Complications

Maternal Complications

- Maternal death
- Uterine rupture
- Fistulae
- Premature rupture of membranes
- Slow dilatation or edema of cervix
- Maternal fatigue
- Sepsis

Foetal complications

- Foetal death
- Birth asphyxia and its complications
- Caput succedaneum
- Excessive moulding of fetal skull
- Sepsis



6

Important Clinical Situations to Understand Prolonged and Obstructed Labour

Prolonged Labour

- Woman has been experiencing labour pains for 24 hours or more without delivery

Prolonged Latent Phase

- Woman is in true labour but her cervical dilatation has not progressed at all or has not reached 4 cm in 8 hours

Prolonged Active Phase

- Woman is in active phase of labour (> 4 cm dilatation achieved) but cervical dilatation is not occurring at the rate of 1 cm/hour (overall should not last more than 12 hours)

Prolonged Expulsive Phase

- Woman is in second stage of labour (> 10 cm dilatation achieved) but baby is not delivered for more than 2 hours even after the woman has an urge to push



7

Important Clinical Situations to Understand Prolonged and Obstructed Labour

Obstructed Labour

- Obstructed labour is a clinical diagnosis that can occur at any time during active phase or second stage of labour. Obstructed labour means that uterine activity is good but there is still no descent of foetus.
- It can occur due to CPD, malpresentations/malpositions, foetal abnormalities.
- Obstructed labour can be prevented by proper obstetric examination and monitoring of progress of labour.

Inadequate uterine activity

- Means Less than 3 contractions in 10 minutes, each lasting less than 40 seconds. Can occur anytime during active phase of labour. Can cause prolonged labour.



8

PARTOGRAPH – CASTE STUDY 1

Radha (wife of Gangaram), 26 years of age, third gravida, was admitted at 5:00 am on 11 June 2009 with the complaint of labour pains since 2:00 am. Her membranes had ruptured at 4:00 am. She has two children of the ages of 5 and 2 years. On admission, her cervix was 2 cm dilated.

Plot the following findings on the partograph:

At 09:00 am: • The cervix is dilated 5 cm.

- She had 2 contractions in 10 minutes, each lasting <20 seconds.
- The FHR is 120 beats per minute.
- The membranes have ruptured and the amniotic fluid is clear.
- Her BP is 120/70 mmHg.
- Her temperature is 36.8°C.
- Her pulse is 80 per minute.

09:30 am: FHR 120, contractions 2/10 each <20 seconds, pulse 80/minute, amniotic fluid clear

10:00 am: FHR 136, contractions 2/10 each <20 seconds, pulse 80/minute, amniotic fluid clear

10:30 am: FHR 140, contractions 2/10 each <20 seconds, pulse 88/minute, amniotic fluid clear

11:00 am: FHR 130, contractions 2/10 each <20 seconds, pulse 88/minute, amniotic fluid clear

11:30 am: FHR 136, contractions 2/10 each <20 seconds, pulse 84/minute, amniotic fluid clear

12:00 noon: FHR 140, contractions 2/10 each <20 seconds, pulse 88/minute, amniotic fluid clear

12:30 pm: FHR 130, contractions 2/10 each <20 seconds, pulse 88/minute, amniotic fluid clear

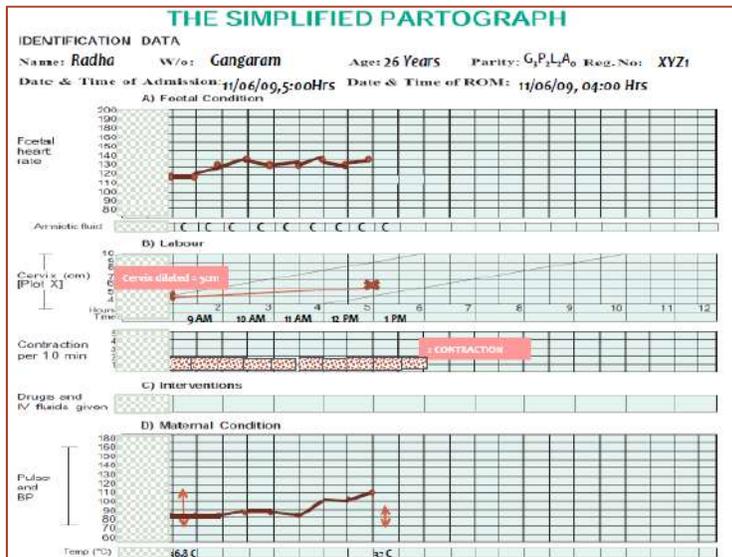
1:00 pm: FHR 140, contractions 2/10 each <20 seconds, pulse 90/minute, temp. 37°C, BP 100/70, amniotic fluid clear

At 1:00 pm:

- Cervix dilatation 6 cm
- Amniotic fluid clear and BP 100/70 mmHg



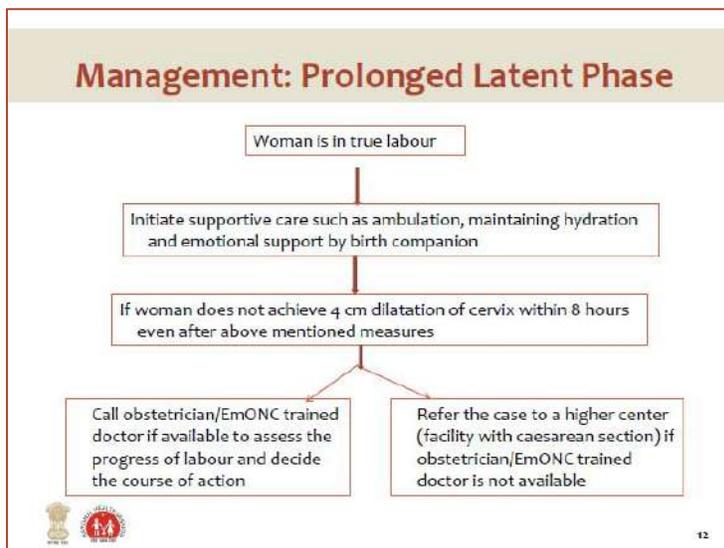
9



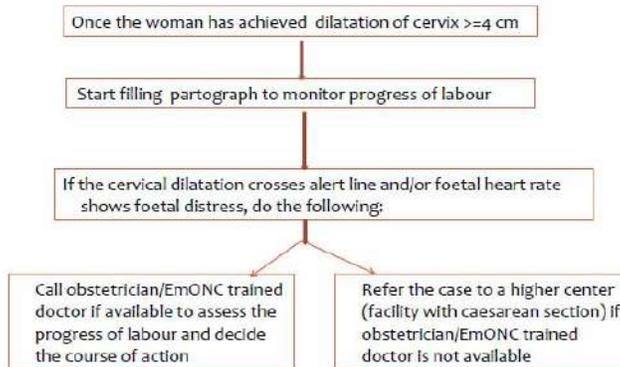


Prolonged Labour

11

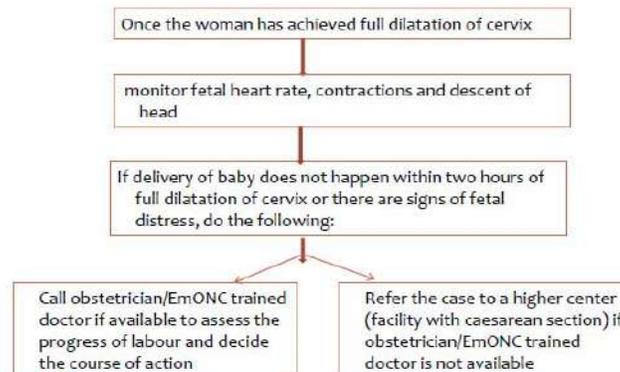


Management: Prolonged Active Phase



13

Management: Prolonged Expulsive Phase



14

PARTOGRAPH – CASTE STUDY 2

Radha (wife of Gangaram), 26 years of age, third gravida, was admitted at 5:00 am on 11 June 2009 with the complaint of labour pains since 2:00 am. Her membranes had ruptured at 4:00 am. She has two children of the ages of 5 and 2 years. On admission, her cervix was 2 cm dilated.

Plot the following findings on the partograph:

At 09:00 am: • The cervix is dilated 5 cm.

- She had 3 contractions in 10 minutes, each lasting 20-40 seconds.
- The FHR is 120 beats per minute.
- The membranes have ruptured and the amniotic fluid is clear.
- Her BP is 120/70 mmHg.
- Her temperature is 36.8°C.
- Her pulse is 80 per minute.

9:30 am: FHR 120, contractions 3/10 each 20-40 seconds, pulse 80/minute, amniotic fluid clear

10:00 am: FHR 136, contractions 3/10 each 20-40 seconds, pulse 80/minute, amniotic fluid clear

10:30 am: FHR 140, contractions 3/10 each 20-40 seconds, pulse 88/minute, amniotic fluid clear

11:00 am: FHR 130, contractions 3/10 each 20-40 seconds, pulse 88/minute, amniotic fluid meconium stained

11:30 am: FHR 136, contractions 3/10 each 20-40 seconds, pulse 84/minute, amniotic fluid meconium stained

12:00 noon: FHR 110, contractions 4/10 each 45 seconds, pulse 100/minute, amniotic fluid meconium stained

12:30 pm: FHR 110, contractions 4/10 each 45 seconds, pulse 100/minute, amniotic fluid meconium stained

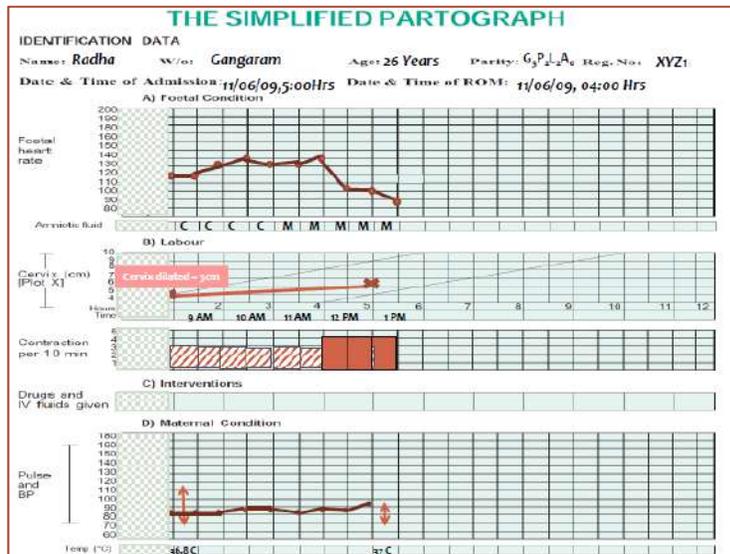
1:00 pm: FHR 100, contractions 4/10 each 45 seconds, pulse 110/minute, temp. 37°C, BP 100/70, amniotic fluid meconium stained

At 1:00 pm:

- Cervix dilatation 6 cm
- Amniotic fluid meconium stained and BP 100/70 mmHg



15





Obstructed Labour

17

Clinical Picture

- History, age, parity
- Previous operative delivery
- Previous still birth
- Duration of labour so far
- Previous history of babies with developmental anomalies
- Progress of labour
- Rupture of membranes and their timing



18

Findings of Clinical Examination

General examination

- Physical and mental exhaustion
- Dehydration
- ketoacidosis
- Fever
- Shock due to ruptured uterus or sepsis

• Foetal condition: try and listen for FHR

Vaginal examination:

- Foul smelling meconium may be seen
- Amniotic fluid may have already drained away
- Edema of the vulva
- Vagina hot and dry
- Large caput

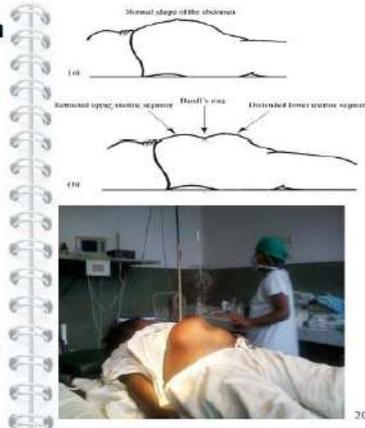


19

Findings of Clinical Examination (Contd..)

Abdominal Examination

- Foetal head above pelvic brim
- Women may have frequent & strong contractions or they may have stopped due to uterine inertia or rupture of the uterus.
- Bandl's RING may be seen at:
 - Area between upper and lower uterine segments when it becomes visible/palpable
 - Depression across the abdomen at the level of umbilicus.
 - Shape of uterus looks like a peanut shell



20

Management: Obstructed Labour

- In ideal situation, complications from obstructed labour can be avoided through timely identification of cephalo-pelvic disproportion and appropriate monitoring of progress of labour
- If obstructed labour has been confirmed, do the following:

Rehydrate the patient

- Start an i/v line R/L or normal saline @ 25-30 drops/min

Give antibiotics

- Inj. Ampicillin 1 gm IV after sensitivity testing
- Inj. Gentamicin 80 mg iv
- Inj. Metronidazole 500 mg iv

Refer the patient to FRU



21

Symptoms and Signs: Ruptured Uterus

Symptoms

- Shock may be present
- Severe abdominal pain
- Vaginal bleeding may be present

Signs

- Abdominal tenderness
- Foetal parts felt superficially
- Uterine contour not felt
- FHS not heard



It is a life threatening condition
Manage shock and refer immediately

22

Key Messages

- Obstructed labour is one of the important causes of maternal deaths
- Partograph helps to identify it and any deviations from normal in foetal and maternal condition and progress of labour early
- Prolonged and obstructed labour should be diagnosed early and managed promptly to prevent complications and adverse maternal and foetal outcomes



Augmentation should only be done in
indicated cases and at equipped centers
under expert medical guidance

23

Sessions 1.13

Empowering Birth Companions for Participation in Care of Mother and Baby

Duration: 10 minutes

Learning objectives

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

- Describe the importance and benefits of keeping birth companion with woman in labour
- Discuss the role of birth companion
- List the danger signs during labour

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on empowering birth companion (PPT 1.13)
- SCC

Instructions

- Use presentation (PPT 1.13) for this session. Introduce the session by asking the group that how would a woman feel if she has someone whom she knows and trusts, close to her during labour, delivery and postpartum period while she is in the hospital. Note the responses of the learners. Say that today we will discuss the need for a birth companion with the woman and present the objectives of the session.
- Tell the group to identify which intervention mentioned in the slide led to improved pregnancy outcomes.
- Discuss about the role of companion during the process of labour.
- Explain that the companion should know the danger signs for mother and baby and supporting care during labour, delivery and immediate postpartum period.
- Ask one of the learners to read from the SCC, the danger signs and supportive care which the companion must know and provide to the woman. Hence, the service provider must tell the companion how to identify if a danger sign is occurring and inform her immediately so that prompt care can be provided to save the life of the woman and the baby.
- Summarize the findings by key messages.

Key messages

- Evidence suggests that birth companions are an important partner in care provision if properly empowered through knowledge related to the delivery process
- It helps in giving emotional and physical supportive care to woman in labour for smooth progress and better performance and cooperation of the woman.

Presentation 1.13



Empowering Birth Companion

Learning Objectives

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

- Describe the importance and benefits of keeping birth companion with woman in labour
- Discuss the role of birth companion
- List danger signs during labour



2

Identify the Intervention that Led to Following Dramatic Changes in Outcomes

Use of analgesia/ anaesthesia during labour	21 % reduction
Prolonged labour	95% reduction
Need for episiotomy	44% reduction
Caesarean section	20% reduction
Prolonged hospital stay for newborn	39% reduction
Admission of newborn to newborn care unit	13% reduction
Newborn sepsis	55% reduction
Feeling of tension and anxiety during labour	20% reduction
Severe postpartum depression at 6 weeks	97% reduction

Emotional support during labour

3

Role Birth Companions can Play in the Delivery Process

- Birth companion is someone who will be with labouring woman during and immediately after delivery
- Emotional support to mother
- Early identification of danger signs and information to service providers
- Support in basic care practices such as maintaining hydration of mother during labour, keeping the baby covered, early initiation of breast feeding, etc.



Birth companions can be an important partner in care provision if properly empowered through knowledge related to the delivery process

4

What Birth Companions should Know

Danger Signs for Mother	Danger signs for baby	Counselling advice
Excessive Bleeding	Fast/difficulty in breathing	Support to cope up with labour pains
Severe abdominal pain	Fever	No bath/oil for baby
Difficulty in feeding	Unusually cold	No Pre-Lacteal feed
Sever headache or blurring of vision	Stops feeding well	Initiate breastfeeding in half-an-hour
Urge to push	Less activity than normal	Clothe and wrap the baby
Can't empty bladder every 2 hours	Whole body becomes yellow	
Fever or chills		
Foul smelling vaginal discharge		



5

Key Messages

- Evidence suggests that birth companions are an important partner in care provision if properly empowered through knowledge related to the delivery process
- It helps in giving emotional and physical supportive care to woman in labour for smooth progress and better performance and cooperation of the woman.



6

Session 1.14

Summary and Review of the Day's Activities

Duration: 5 minutes

Learning objectives

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

- List the key points covered during the sessions of the day
- Provide key feedback on the day one of training

Resources/materials required

Notepad and pen in folders of the learners

Instructions

- Tell the learners that with this session we will close the activities of the day. Hence, let us recall what was done during the day.
- Ask questions from any of the learners one by one by taking their names to state any one key point covered during the sessions. Wait for the response. If correct, compliment the learner and ask another one to add another point or activity covered during the day until the main key points are covered briefly.
- Tell the learners that the next day we will start the day by some of you recalling for the group where we left and what we covered today. Ask the group to volunteer one or two learners who will do this activity the next day. Assign the volunteers to share this task between them.
- Encourage the learners to complete the home assignment of plotting the partograph for case study 3 which will be reviewed in the recap session of the next day.
- Ask the learners to write on a page of their notepad, one thing they liked and learned during the day and one which they did not like. This feedback from them will help the trainers to know whether the learners find the training useful and are comfortable. Their feedback on logistics if provided will help to see if it can be addressed during the rest of the days of training if feasible.
- Close the day by thanking the learners for their participation and tell the time to start the training the next day, so that they all may assemble before the start time.

Day Two Session Plans

Section Three

Essential practices just before, during and after delivery

Session 2.1

Recap of Day One; Review Partograph Exercise and Agenda of Day Two

Duration: 40 minutes

Learning objectives

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

- Repeat the key points covered during sessions of day one
- List the corrections made in the partographs during their review

Resources/materials required

- One case study of labour given for the assignment
- Partograph on flex displayed on the wall/flip chart stand
- Markers, duster
- Ball for game for recap

Instructions

- Welcome the learners on the second day of the training.
- Start the session with a recap of key points discussed on day one. Ask for volunteers to briefly mention the key points and activities covered during the sessions of day one. This can also be done by a game with a ball. Tell the learners, that the trainer will throw the ball to one of the learners, that person will summarize one of the session from previous day in approximately 2 minutes. Then the learner will throw the ball to any other learner far from him or her and that learner will summarize another session. Almost each learner will get a chance to recap some key point of previous day's sessions. Encourage learners to use the safe childbirth checklist as a help while discussing key points from previous day's sessions.
- Clarify doubts if any from previous day's sessions.
- Review and discuss the partograph case studies assignment and ask the learners for any mistake or clarification they need regarding plotting and interpretation of the two cases. Assign sufficient time to assess the partograph home assignments while participants are arriving at the beginning of the day's session.
- Present the agenda of day two.

Session 2.2

Preparing for Safe Delivery

- **Personal Protective Equipment (PPE)**
- **Trays relevant for safe delivery as per MNH toolkit (Normal Delivery and Newborn resuscitation trays)**
- **Pre-filled oxytocin**

Duration: 30 minutes

Learning objectives

At the end of the sessions, learners will be able to:

- List the items of personal protective equipment (PPE) to be worn by the provider to conduct normal delivery
- List the seven trays and their contents to be kept ready in LR as per Gol's recommendation (depending upon level of facility)
- Describe the importance of pre-filled syringe with 10 IU Oxytocin kept ready before delivery by the side of delivery tray

Resources/materials needed

- Handout-trays to be kept in LR
- Set of PPE-cap, mask, goggles, plastic apron, shoe covers/foot wears, sterile/HLD gloves
- Prepared delivery tray and baby tray as recommended in Gol's MNH tool kit

Instructions

- Write the objectives of the session on flip chart before the start of session. Present the objectives through the flip chart.
- Demonstrate wearing PPE or show picture of a person with PPE. Tell learners that technique of wearing and removal of gloves has already been demonstrated on day 1.
- Facilitate discussion on instrument trays they currently use in their facility.
- Show the section on essential supplies in the SCC on the page of check point 2-just before and during birth, and ask the learners about the essential supplies needed for mother and baby at the bed side.
- Give handout of 7 trays to each learner as a ready reckoner (from MNH tool kit) to read out the trays and instruments in it.
- Describe the seven trays to be kept ready in LR as recommended in Gols' MNH tool kit
- Demonstrate contents of delivery tray and baby tray. Explain the importance of each item in them
- Ask learners to read the contents of rest of the trays through the hand out

- Describe that by keeping pre-filled syringe with 10 IU oxytocin by the side of delivery tray helps providers to ensure that mother receives it within one minute of delivery of baby for active management of third stage of labour

Key messages

Summarize by stating the key points covered during the session.

- For safe delivery PPE should be worn by providers to prevent infection
- All seven trays must be kept ready in LR as recommended in Gol's MNH tool kit. This helps in reducing chaos and confusion during delivery and management of complications
- Always keep pre-filled syringe with 10 IU oxytocin by the side of delivery tray. This helps providers to ensure that mother receives it within one minute of delivery of baby

Session 2.3

Normal Delivery and Active Management of Third Stage of Labour (AMTSL)

Duration: 15 minutes

Learning objectives

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

- Describe management of 2nd stage of labour (normal delivery) and AMTSL
- Describe imminent signs of delivery, controlled delivery of head, shoulders and body
- Describe the importance of three steps of AMTSL

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on normal delivery and AMTSL (PPT 2.3)
- GoI poster on AMTSL

Instructions

- Introduce the session and present the objectives of the session
- With the help of presentation 2.3, discuss the second stage of labour, imminent signs of delivery, management of the controlled delivery of head, shoulders and body.
- Explain that approximately 70% cases of Postpartum Hemorrhage (PPH) can be prevented if AMTSL is performed for all women within one minute after the birth of baby.
- Ask questions to facilitate the group to discuss the three steps of AMTSL and the key factors to keep in mind while performing them to facilitate their learning of this task.
- Use GoI poster on AMTSL to recollect the steps.

Key messages

Summarize the session by ensuring that the key points have been mentioned by the learners:

- Rule out the presence of any other baby before giving 10 IU injection oxytocin IM within one minute of delivery of the baby.
- Do controlled cord traction with counter traction only during contractions.
- Examine the placenta for its completeness of maternal and foetal surfaces, membranes and presence of two arteries and one vein at the cut end of the cord.
- Routine exploration of the uterus after delivery of the complete placenta is not recommended. It is very painful and the woman may go into shock. If any piece of the placenta is retained, the woman needs to be referred to an First Referral Unit (FRU) for exploration by a specialist
- Digitally remove any bits of placenta or membranes only if they are visible in the vagina. Do not attempt any intrauterine manipulation, refer to FRU.
- Ensure proper disposal of waste and decontamination of used instruments and gloves.

Presentation 2.3



Second Stage of Labour and AMTSL

Learning Objectives

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

- Describe management of 2nd stage of labour and AMTSL
- Describe imminent signs of delivery, controlled delivery of head, shoulders and body
- Describe the importance of three steps of AMTSL



2

What is Second Stage of Labour?

- Part of labour beginning with full dilatation of cervix and ends with the expulsion of the foetus
- Normally lasts between 1 – 2 hours



3

Care during Early part of Second Stage

By the time pregnant woman attains full dilatation of cervix, you would have already shifted her to labour room.

- Watch for signs of imminent delivery (provide supportive care)
 - Gaping of vulva
 - Thinning and bulging of perineum
 - Pouting of anus
 - Head of the baby seen at vulva
 - Urge to push
- Encourage the woman to push during contractions when she has an urge to do so while taking deep breaths



4

Care during Early part of Second Stage

- | | |
|---|---|
| √ | <ul style="list-style-type: none">• When the cervix is fully dilated, during a contraction, encourage the woman to take deep breaths and push down. |
| X | <ul style="list-style-type: none">• Bearing down efforts are not required until the head has descended into the perineum. Therefore, the woman should be advised not to push actively until the foetal head is distending the perineum.• Occasionally, the woman may feel the urge to push before the cervix is fully dilated. This must be discouraged as it can result in oedema of the cervix, which may delay the progress of labour.• Do not apply fundal pressure on the abdomen to facilitate expulsion of the baby. |



5

Supporting Delivery of Head

- Clean the perineum with anti-septic solution with strokes of swabs from above downward
- Ensure controlled delivery of the head:
 - Keep one hand gently on the head as it advances with contractions.
 - Support perineum with other hand and cover anus with pad held in position by palm of the hand during delivery.
 - Ask the mother to breathe steadily and push only during contraction.
 - Encourage rapid breathing with mouth open.
 - Allow spontaneous rotation and restitution of head after delivery



6

Managing Cord Around Neck

Feel gently around the baby's neck for presence of umbilical cord

- If it is loose around the neck, deliver the baby through the loop of the cord, or slip the cord over the baby's head
- If it is tight around the neck, doubly clamp and cut in between



7

Delivery of Shoulders and Rest of the Body

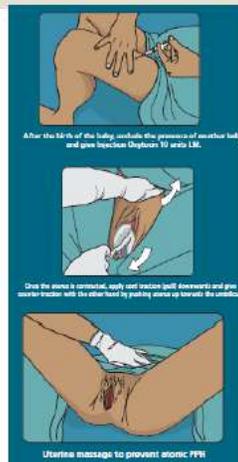
- Wait for the spontaneous rotation and delivery of the shoulders. This usually happens within 1-2 minutes of delivery of head
- Apply gentle pressure downwards to deliver the top (anterior) shoulder
- Then lift the baby up, towards the mother's abdomen, to deliver the lower (posterior) shoulder
- Rest of the baby's body follows smoothly
- Note the time of birth



8

Active Management of Third Stage of Labour (AMTSL)

- The three critical steps of AMTSL are:
 - ✓ Administration of uterotonic drug (Inj Oxytocin-10IU, IM/ Tab Misoprostol-600mcg, oral)
 - ✓ Controlled cord traction
 - ✓ Uterine massage
- Approximately 66% cases of PPH can be prevented if AMTSL is done in all cases after delivery
- It helps in expulsion of placenta and reduction in blood loss to mother



Key Messages

- Encourage woman to push down only during contractions and after she feels an urge to push
- Ensure delayed cord clamping and cutting (after 1-3 minutes of delivery of baby)
- Perform active management of third stage of labor in all cases to help in separation of placenta and prevent PPH:
 - Give uterotonic (injection Oxytocin 10 IU IM) immediately after the delivery of baby
 - Perform controlled cord traction to help deliver the placenta
 - Perform uterine massage



Session 2.4

Essential New Born Care (ENBC)

Duration: 15 minutes

Learning objectives

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

- Describe the importance of newborn care at birth
- List the steps of ENBC and their benefits
- Describe importance of giving injection Vitamin K to every newborn with route and doses

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on essential newborn care (PPT 2.4)
- Handout on use of vitamin K prophylaxis in newborns

Instructions

- Use presentation 2.4 and introduce the session and present the objectives of this session
- Explain the importance of newborn care at birth. Most newborn deaths due to hypothermia, asphyxia and infection can be prevented by ENBC.
- Describe the steps of ENBC and explain the benefits of each step.
- Describe use of injection vitamin K for every newborn with route and doses
- Give handout of vitamin K to learners

Key messages

Summarize the session by mentioning the key points covered.

- Most of the neonatal deaths occur during delivery or on the day of birth
- Newborn deaths due to hypothermia, asphyxia and infection can be prevented by providing ENBC to all of them immediately after birth
- Hypothermia can be prevented by immediate drying and keeping the baby in a dry cloth; skin-to-skin contact with mother and baby covered together; and covering baby's head with cap
- Assess baby for breathing for early identification of asphyxia and initiate immediate breastfeeding to prevent hypoglycemia
- Give injection vitamin K to every baby to prevent haemorrhagic disease of newborn. Dose is 1 mg IM for newborns weighing >1000 gms and 0.5 mg for newborns weighing <1000 gms

Presentation 2.4



Essential New Born Care (ENBC)

Learning Objectives

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

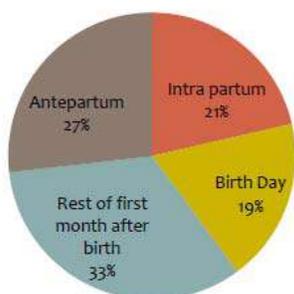
- Describe the importance of newborn care at birth
- List the steps of ENBC and their benefits
- Describe importance of giving injection Vitamin K to every newborn with route and doses



2

Importance of Care for Newborn at Birth

Neonatal mortality and stillbirths
(5.5 million)



- Most of the neonatal deaths occur during delivery or on the day of birth
- Even for the deaths occurring in the rest of neonatal period, care given at the time of birth is an important influencer
- A lot of deaths of newborns due to hypothermia, asphyxia and infection can be prevented by providing essential newborn care to all newborns immediately after birth



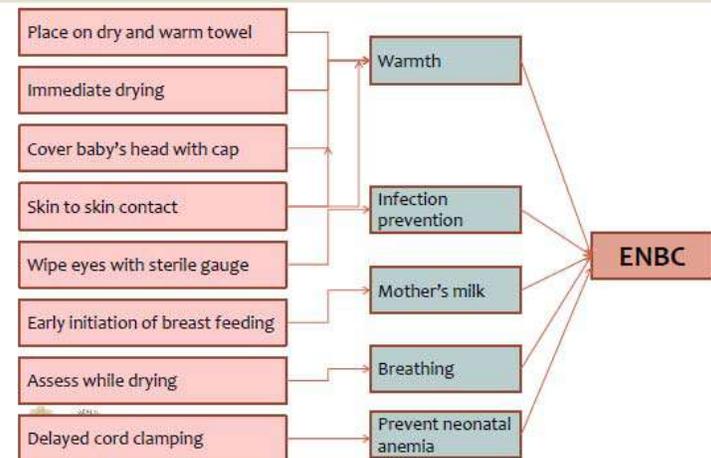
Source: JE Lawn et al.; Every newborn, progress, priorities and potential beyond survival; [The Lancet](#). (DOI:10.1016/S0140-6736(14)60496-7).

Essential New Born Care (ENBC)

1. Call out the time of birth.
2. Deliver the baby onto a warm, clean and dry towel or cloth and keep on mother's chest and abdomen (between the breasts).
3. Assess the baby's breathing while drying.*
4. Immediately dry the baby with a warm clean towel or piece of cloth.
5. Clamp and cut the umbilical cord when cord pulsation stops or in 1-3 minutes (delayed cord clamping).
6. Wipe both the eyes (separately) with sterile gauze
7. Leave the baby between the mother's breasts to start skin-to-skin care.
8. Place an identity label on the baby.
9. Cover the baby's head with a cap. Cover the mother and baby with a warm cloth.
10. Encourage the initiation of breastfeeding.
11. Administer inj. Vitamin K intramuscular to baby according to weight

** - if the baby is not crying or breathing well, resuscitation needs to be carried out.*

Benefits of Essential Newborn Care



Injection Vitamin K for Newborn

Benefits of Vit K <ul style="list-style-type: none"> Prevents hemorrhagic disease of newborn 	Who will receive? All newborns delivered in the facilities at all levels (both public and private)	Preparation to be used Injection Vitamin K1 (Phytonadione): a) 1 mg/1 ml b) 1 mg/0.5 ml	Dose to be given <ul style="list-style-type: none"> Birth weight 1000 gm or more: 1 mg Birth weight less than 1000 gm: 0.5 mg 	
	Site and route of injection <ul style="list-style-type: none"> Antero-lateral aspect of the thigh, intramuscular injection 	Who will give? <ul style="list-style-type: none"> Medical Officer, staff nurse or ANM 	Where it will be given <ul style="list-style-type: none"> In labour room It can be given in post-natal ward if missed in labour room In case of referral the injection should be given at the SNCU/NBSU 	Recording <ul style="list-style-type: none"> Labour room register Case sheet Referral slips Discharge ticket of the newborn
	When it will be given <ul style="list-style-type: none"> Soon after delivery, ensuring skin-to-skin contact with mother and initiation of breast feeding Not later than 24 hours of birth 	Logistics required <ul style="list-style-type: none"> 25 gauge needle and 1 ml syringe Storage <ul style="list-style-type: none"> Room temperature in a dry place 		



Key Messages

- Most of the neonatal deaths occur during delivery or on the day of birth
- Newborn deaths due to hypothermia, asphyxia and infection can be prevented by providing ENBC to all of them immediately after birth
- Hypothermia can be prevented by immediate drying and keeping the baby in a dry cloth, skin-to-skin contact with mother and baby covered together and covering baby's head with cap
- Assess baby for breathing to prevent asphyxia and initiate immediate breastfeeding to prevent hypoglycemia
- Give injection vitamin K to every baby to prevent haemorrhagic disease of newborn.



Session 2.5

Management of Second and Third Stages of Labour

- **Conducting normal delivery**
- **Active management of third stage of labour (AMTSL)**
- **Essential newborn care (ENBC)**
- **Newborn Resuscitation (NBR)**

Duration: 120 minutes

Learning objectives

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

- Demonstrate the process of normal delivery, ENBC, AMTSL and NBR
- Describe the importance of AMTSL in preventing PPH
- Describe the steps of AMTSL
- Describe the importance of “golden one minute” in resuscitation of asphyxiated newborns
- Point the activities demonstrated with the relevant sections of the Safe Childbirth Checklist (SCC)

Resources/materials needed

- Anatomic models for normal delivery, ENBC, and NBR
- Trays with instruments for normal delivery, ENBC and NBR
- Infection Prevention (IP) materials as per the skills checklists for mother and baby
- Injection oxytocin, tablet misoprostol and injection vitamin K
- Skill demonstration checklists
- Gol's posters on AMTSL, NSSK's poster on NBR

Pre-preparation by the trainer

- Prepare the skills station 1 and 2 prior to the session as per the checklist of materials required for preparation of skill stations
- Get familiar with the skills checklists for normal delivery, ENBC, AMTSL and NBR

Instructions

- Tell the learners that we will now see the demonstration of conducting the normal delivery, ENBC, AMTSL and NBR on models using skills checklists. All the learners will see the demonstrations in small groups and then practice them using the skills checklists with constructive feedback from the facilitators. Present the objectives of the session.
- Divide learners in two groups of 5 each, or according to the number present, so that there are not more than 5-6 learners in a group. Ask the groups to move to the skill stations, one group at each station.
- At station 1, demonstrate correct technique of conducting normal delivery, ENBC and AMTSL using skills checklist.
- At station 2, demonstrate correct technique of normal delivery and management of a baby who is not breathing with NBR, using skills checklist.

- Highlight key points during the demonstration for correct technique of the procedure
- Describe steps of newborn resuscitation using the NSSK protocol poster.
- After completing the demonstrations, clarify any doubts.

Key Messages

Summarize the session with the whole group to ensure the key points have been mentioned:

- Minimal intervention should be done while conducting normal delivery
- No need to perform routine augmentation of labour; episiotomy and suction of every newborn; and separation of mother and newborn after birth
- Adopt evidence based good practices to improve patient care like AMTSL, ENBC and delayed cord clamping, skin-to-skin contact and initiate early breastfeeding
- Only 10% of babies require assistance to begin breathing after birth. It is, however, important to keep all the equipment necessary for resuscitation ready at every delivery, so that no time is wasted in an emergency and the life of new born can be saved
- The period of first one minute following birth is called the “golden minute” for the baby because the baby must start crying or breathing within this one minute of birth in order to be healthy
- With successful bag and mask ventilation, baby’s chest must rise equally on both sides with every attempt.

Session 2.6

Preventing Complications in Newborn

Duration: 15 minutes

Learning objectives

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

Describe the ways to prevent hypothermia, asphyxia and infection in newborns

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on preventing complications in newborn (PPT 2.6)

Instructions

- Using presentation (PPT 2.6), introduce the session and present the objectives for this session
- Discuss with the learners the different newborn complications they usually see at their facilities and how do they manage them.
- Explain details of different simple and easy ways to prevent hypothermia, asphyxia and infection.
- Hypothermia can be prevented in newborns by simple evidence-based practices like maintaining LR temperature, drying immediately after birth, skin to skin contact covering baby's head, initiate breastfeeding soon after birth, delay baby's bath and maintain warmth if transportation is required
- Asphyxia can be prevented by using partograph to see the foetal condition by FHR and presence of meconium in amniotic fluid, presence and support of a companion of the woman's choice, maintaining hydration of woman, encouraging her to lie in left lateral position, encouraging woman to take deep breaths in between contractions, and avoiding harmful and unnecessary actions like fundal pressure and augmentation of labour respectively.
- Infections can be prevented by avoiding repeated pelvic examinations, plotting partograph, following infection prevention practices, following six cleans, early initiation of exclusive breastfeeding and avoiding pre-lacteal feed, dry cord care and avoiding routine suctioning for every newborn if he or she is crying or breathing well.

Key messages

Summarize by asking the learners to mention the key points covered during the session:

- Hypothermia in newborns can be prevented by simple practices to ensure baby is warm
- Prevent asphyxia by being alert to the findings recorded on the partograph during monitoring of labour and identifying foetal distress early, and providing supportive care to the mother during labour and delivery

- Avoid harmful practices like fundal pressure and unnecessary augmentation of labour to prevent asphyxia of the baby and harm to the mother. Avoid routine suction for every newborn
- Prevent infections by avoiding repeated pelvic examinations during labour and following infection prevention practices
- Encourage early initiation of exclusive breastfeeding and avoid pre-lacteal feeds; keep the cord dry to prevent infection after birth of the baby.

Presentation 2.6



Preventing Complications in Newborns

Learning Objective

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

- Describe the ways to prevent hypothermia, asphyxia and infection in the newborns



2

Tips for Preventing Hypothermia in Newborns

- Maintain temperature of labour room at around 25-28 °C
- Dry the baby immediately after birth and wrap the baby in a pre-warmed towel
- Regularly monitor the temperature of the baby. Temperature below 36.5 °C is a cause of concern
- In case new-born resuscitation is required, always perform it under a heat source i.e., radiant warmer
- Keep the baby in skin to skin contact with mother as long as possible
- Initiate breast feeding as early as possible
- Keep the baby adequately covered (cap, socks, etc.)
- Postpone the bathing of baby for at least 24 hours and at least for seven days for preterm and LBW babies
- In case there is need for transportation, maintain warmth of the baby



3

Tips for Preventing Infection in Newborns

- Appropriately manage maternal infections and use prophylaxis wherever needed
- Use of Partograph
- Do not do un-necessary PV examination
- Maintain “Six Cleans” during delivery
- Dry cord care
- Avoid unnecessary interventions for the baby like routine suctioning of every newborn
- Perform hand hygiene every time before handling the baby
- Early initiation of breast feeding and exclusive breast feeding, avoid pre-lacteal feeds



4

Tips for Preventing Breathing Difficulties in Newborns

- Monitoring the labour progress through plotting of partograph
- Emotional support with birth companions
- Use of ANCS in pre-term births
- Appropriate management of pre-eclampsia/eclampsia
- Avoid unnecessary augmentation of labour
- Maintain hydration of mothers at all times
- Allow mother to assume left lateral position during labour
- Ask mother to push only during contractions
- Ask mothers take deep breaths in between contractions
- Do not apply fundal pressure during labour



5

Key Messages

- Hypothermia in newborns can be prevented by simple practices to ensure immediate drying and keeping baby warm
- Prevent asphyxia by being alert to the findings recorded on the partograph, identifying Foetal distress early, managing maternal complication like PE/E and providing supportive care to the mother during labour and delivery
- Encourage early initiation of exclusive breastfeeding and avoid pre-lacteal feeds, keep the cord dry to prevent infection after birth of the baby.



6

Session 2.7

Prevention, Identification and Management of Postpartum Hemorrhage

- **Prevention of PPH–AMTSL**
- **Initial management of shock and PPH**
- **Bimanual compression and aortic compression**

Duration: 60 minutes

Learning objectives

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

- Define PPH
- Describe the importance of AMTSL and other measures to prevent PPH
- Describe ways to identify PPH clinically
- List the causes of PPH
- Identify shock and describe its management
- Describe the cause specific management of PPH
- Demonstrate the initial management of retained placenta and atonic PPH including bimanual uterine compression and aortic compression on model

Resources/materials needed

- Flip chart/white board, stand, markers
- LCD projector, screen, laptop, extension board, power source and external speakers
- SBA video, module 5 on PPH management
- Gol's protocol poster for management of PPH and atonic PPH
- Checklists for management of PPH due to retained placenta and atonic PPH
- Skill station to demonstrate management of PPH and bimanual uterine compression
- Presentation on management of PPH (PPT 2.7)
- Handout on estimation of blood loss activity
- 4 large bowls, blood simulator, gauze piece, perineal pad, jam bottle/ketchup

Pre-preparation by the trainer

- Set up skills station to demonstrate management of PPH and bimanual compression as per the checklist on materials to prepare skill station
- Set up material for blood loss activity
- Be familiar with the contents and skills checklists and activity procedure of the session

Instructions

- Introduce the session by asking the group to share the most common complications in postpartum period which they see at the health facilities. Inform them that now we will learn how to prevent and manage shock and PPH. Present the objectives of the session to the group by using PPT 2.7

- Describe that PPH is the leading cause of maternal deaths and can be prevented by simple evidence based practices. Define what is PPH.
- Describe the causes of PPH.
- Ask the group to recall the steps of AMTSL with importance of every step in preventing PPH. Inform that 70% cases of PPH can be prevented by AMTSL.
- Describe how to identify PPH according to blood loss and pictures of possible situations to estimate blood loss. Explain that estimation of blood loss is very difficult and not accurate as it is mixed with liquor.
- Perform activity on blood loss estimation. Take 4 containers-first with soaked gauze piece with red color liquid, second with soaked pad, third with puddle of simulated blood and fourth with fist full clot (Jam/sauce). Number each container and ask the group to walk, and assess and note the amount of blood loss in each container in their notepad. Summarize the activity by saying that clinical estimation of blood loss is usually less than actual blood loss. Show the hand out of blood loss estimation. Describe that clinical blood loss assessment is very important as the interval from the onset of PPH to death can be as little as two hours, unless appropriate life-saving steps are taken immediately.
- Explain identification and management of shock and general management of PPH.
- Explain identification and management of atonic PPH. Explain use of uterotonics to manage PPH.
- Describe the process of bimanual uterine compression and aortic compression respectively.
- Describe the identification and management of traumatic PPH and PPH due to retained tissue respectively.
- Explain the identification and management of delayed/secondary PPH.
- Explain the protocol for prevention and management of PPH by showing the Gol's poster for them.
- To reinforce the procedures, show the Gol's video module 5 on PPH management.
- Demonstrate correct technique of uterine massage, initial management of retained placenta and atonic PPH, bimanual uterine compression and aortic compression on the model.

Key messages

Summarize by asking the learners to mention the key points of the session:

- PPH is one of the most important causes of maternal deaths
- 70% chances of PPH can be prevented by doing AMTSL for every delivery, especially giving uterotonic i.e. inj. Oxytocin 10 IU (drug of choice) or tab misoprostol 3-tablets of 200 mcg each or one tablet of 600 mcg within 1 minute of delivery of baby, after ruling out another baby in the uterus
- Deaths from PPH can occur within 2 hours of its occurrence, so timely identification, management and/or referral is very important
- If the woman is in shock, manage it and stabilize her on priority, then manage PPH according to the cause

- Major cause of PPH is due to atonic uterus which can be prevented by AMTSL and early initiation of breastfeeding
- Secondary PPH is mainly due to infection of uterus, so apart from PPH management antibiotics will be required in such cases if the woman has fever and foul smelling lochia.

Presentation 2.7



Prevention, Identification and Management of PPH

Learning Objectives

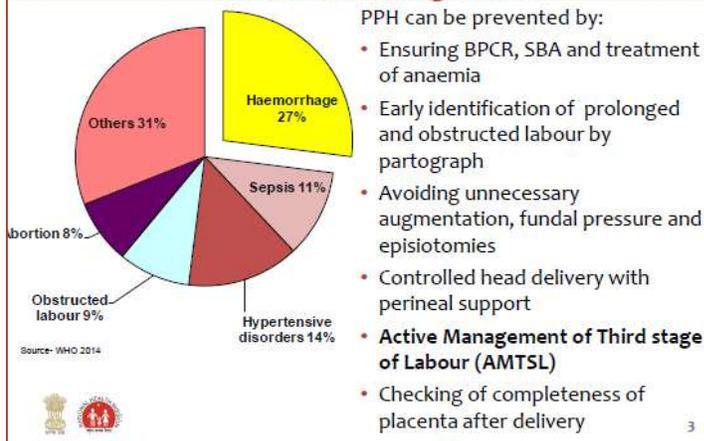
By the end of this session, learners will be able to:

- Define PPH and list its causes
- Describe the importance of AMTSL and other measures to prevent PPH
- Describe ways to identify PPH clinically
- Describe ways to identify and manage shock
- Describe the cause specific management of PPH
- Demonstrate the initial management of retained placenta and atonic PPH including bimanual uterine compression and aortic compression on model



2

Prevention of PPH is the Most Important Part of its Management



3

Identification of PPH

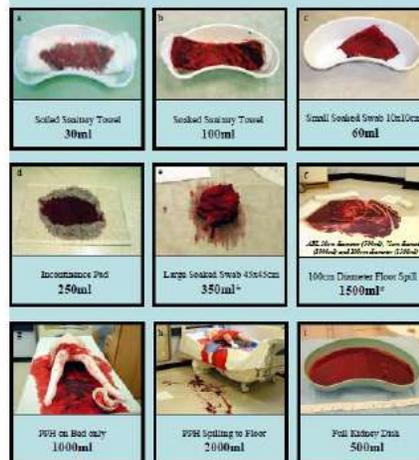
- Loss of 500 ml or more of blood during delivery and up to six weeks after delivery (may be less in anemia)
- or
- Blood loss sufficient to cause signs and symptoms of hypovolemia
- or
- Woman soaks 1 pad or cloth in <5 min)



4

A Pictorial Reference Guide to Aid Visual Estimation of Blood Loss at Obstetric Haemorrhage: Accurate Visual Assessment is Associated with Fewer Blood Transfusions

Dr Patrick Boon, Dr Fiona Regan, Miss Sara-Paterson Brown



5

Causes of PPH

Primary/ Immediate PPH

Occurring during delivery till 24 hours postpartum

- Tone - Atonic PPH - Most common cause (80-90%)
- Tears or trauma
- Tissue - retained or incomplete placenta, membranes
- Thromboembolic - Coagulopathy

Secondary/ Delayed PPH

From 24 hours postpartum till 42 days or 6 weeks

- Infection in the uterus
- Retained placental fragments



6

Principles of Management of PPH

- Call for additional support
- Manage shock
- Continue uterine massage
- Treat specific causes of PPH
 - Try medical (uterotonics) and conservative management (such as Bimanual compression, aortic compression, balloon tamponade) before conducting surgical procedures
- Patient's condition should be stabilized before any referrals are done
- In cases there is need for referral continue fluids, uterotonic and temporizing measures if needed to control the bleeding

Remember that the interval from the onset of PPH to death can be as little as two hours, unless appropriate life-saving steps are taken immediately.

Identification of Shock

Symptoms of shock:

- Tachycardia - Fast, thin thready pulse, >110/minute
- Tachypnoea - Fast respiratory rate
- Hypotension - Fall in systolic BP, <90 mm of Hg
- Hypothermia - Skin cold and clammy
- Altered sensorium - Drowsy, semi conscious or unconscious



8

Initial Management of PPH

- Shout for Help: Mobilize all available health personnel
- Evaluate Vital Signs: Pulse, BP, respiration and temperature
- Establish two IV lines with wide bore cannulae (16-18 gauge), draw blood for blood grouping and cross matching; catheterize the bladder
- Start rapid infusion using cannula number 16 with Normal Saline/ Ringer Lactate, 1L in 15-20 mins
- Massage the uterus to expel the clots
- Give Oxygen @ 6-8 L per minute by mask
- Monitor vital signs and blood loss (every 15 minutes)
- Monitor fluid intake and urinary output



9

Cause Specific Management: Atonic PPH

- Give Inj. Oxytocin 10 IU I/M stat if not given during AMTSL
- Massage uterus to stimulate effective uterine contractions
- If still uterus is relaxed, examine placenta for completeness, if not discarded
- Add 20 IU of oxytocin to 500 ml of Ringer Lactate/normal saline at the rate of 40-60 drops/minute
- Massage uterus. Examine perineum, cervix and vagina for any tears
- If still uterus is relaxed can give other uterotonics like prostaglandins (misoprostol or carboprostol) or methyl ergometrine or combination of oxytocin and methyl ergometrine
- If still uterus is relaxed do bimanual uterine compression/aortic compression
- Arrange for transportation to FRU where facilities for blood transfusion and surgery available

Drugs for PPH Management

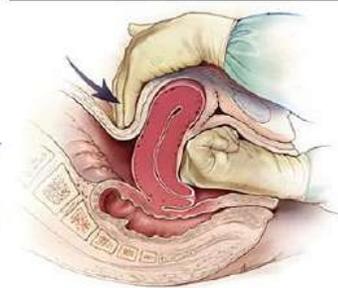
Drug	Dose and route	Continue dose	Max dose	Precaution and contraindication
Oxytocin	20IU in 500ml RL/DNS 60 drops/ min IV infusion	IV infuse 20 IU in 500ml RL/DNS 40 drops/min IV infusion	Not more than 3Lof IV fluids containing Oxytocin	Do not give IV as bolus
Ergometrine	IM or IV (slowly) 0.2 mg	Repeat 0.2. mg after 15 min. If required give 0.2 mg IM/IV slowly every 4 hrs	Five dose (Total 1.0mg)	High BP, PE, Heart disease
15- Methyl prosthaglandin F20	IM 0.25 mg	0.25 mg every 15 min	8 doses (total 2mg)	Asthma



11

Bimanual Uterine Compression

- Empty urinary bladder with Foley's catheter
- Insert gloved hand in vagina, remove any visible clots from vagina
- Place fist in anterior vaginal fornix and press against anterior wall of uterus
- Place other hand on abdomen behind uterus, pressing against posterior wall of uterus
- Maintain compression until bleeding is controlled and uterus contracts



12

Compression of Abdominal Aorta

- Apply downward pressure with closed fist over abdominal aorta directly through abdominal wall
- With other hand, palpate femoral pulse to check adequacy of compression
 - Pulse palpable = inadequate
 - Pulse not palpable = adequate
- Maintain compression until bleeding is controlled



13

Cause Specific Management: Tears or Trauma

Suspect tears in case of contracted uterus with PPH:

- Look perineum, cervix and vagina for any tears or laceration
- In case of 1st degree perineal tears apply pressure through perineal pads
- In case of 2nd, 3rd or 4th degree perineal tears or cervical tears. Cover tear with sterile pad, establish IV line, infuse fluids rapidly, raise foot end of stretcher, keep her warm during transportation and refer woman to higher center for suturing



14

Cause Specific Management: PPH due to Retained Placenta

If placenta is not out with CCT during AMTSL for 30 minutes suspect retained placenta

- Give Inj. Oxytocin 10 IU I/M stat if not given during AMTSL
- Add 20 IU of oxytocin to 500 ml of Ringer Lactate or normal saline and infuse at the rate of 40-60 drops/minute
- Arrange for blood donor. Arrange for transportation to FRU where facilities for blood transfusion and MRP is available
- Give first dose of broad spectrum antibiotics before referral

Do not attempt manual removal of placenta at centers where operative facilities are not available

Key Messages

- PPH is the most important causes of maternal deaths
- 70% chances of PPH can be prevented by doing AMTSL for every delivery
- Deaths from PPH can occur within 2 hours of its occurrence, so timely identification, management and/or referral is very important
- If the woman is in shock, manage it and stabilize her on priority then manage PPH according to the cause
- Major cause of PPH is due to atonic uterus which can be prevented by AMTSL and early initiation of breastfeeding
- Secondary PPH is mainly due to infection of uterus so apart from PPH management, antibiotics will be required in such cases if the woman has fever and foul smelling lochia.



Session 2.8

Review of Care of Mother and Newborn Soon After Birth

- Regular assessment of clinical condition of mother and newborn
- Early initiation of breast feeding
- Prevention of hypothermia

Duration: 30 minutes

Learning objectives

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

- Describe the importance of reviewing mother and baby every 15 minutes in first two hours after delivery
- Explain the importance of breast feeding within an hour of delivery
- Discuss the importance of skin-to-skin contact and rooming-in in preventing hypothermia of newborns
- Describe management of hypothermia in newborns
- Demonstrate positioning and attachment during breast feeding using breast model

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on care of mother and newborn immediately after birth (PPT 2.8)
- Gol's poster on breast attachment
- Breast model
- Checklist on breastfeeding

Instructions

- Use presentation (PPT 2.8) for this session. Introduce the session and present the objectives of the session
- By showing the slide, emphasize the importance of reviewing mother and baby like checking of vitals for both (mother and baby) and bleeding PV in mother every 15 minutes in first two hours after delivery, as this is the most critical period in which complications like PPH develop which is the leading cause of maternal death. This period is also called the fourth stage of labour.
- Explain the care of mother and newborn within 1-2 hours of birth.
- Describe the care of mother and newborn after 4th stage of labour.
- Discuss the need for antibiotics and need for MgSO₄ using the SCC check points 2 and 3.
- Explain the simple evidence based practices to prevent hypothermia like skin-to-skin contact and rooming-in.
- Describe the management of cold stress, moderate and severe hypothermia.

- Explain early initiation of exclusive breastfeeding, importance of initiating breast feeding within half an hour of delivery, various advantages of breastfeeding and also describe signs and effects of good and poor attachment of the baby to the breast. Immediate initiation of breast feeding is associated with 22% reduction in newborn mortality. Colostrum feeding is important for the baby
- Show Gol's poster on breast attachment and highlight the key points of good attachment.
- Demonstrate positioning and attachment during breast feeding using breast model and baby doll (Do this along with the demonstration of Kangaroo Mother Care (KMC) and insertion of OG tube)

Key messages

- Review mother and newborn every 15 minutes during this period to early detect any problem
- Hypothermia can be prevented by simple evidence based practices like skin-to-skin contact and rooming-in
- Early initiation and exclusive breastfeeding is critical to baby's adequate growth and protection against complications and infections, so no pre-lacteal feeds should be given to the baby
- Proper techniques of breast feeding is important for adequate feeding of the baby
- Status of feeding by newborn is also an indication of the general wellbeing of the baby
- Poor attachment to breasts leads to sore nipples, breast engorgement, irritable baby and poor weight gain.

Presentation 2.8



Care of Mother and Newborn Immediately after Birth

Learning Objectives

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

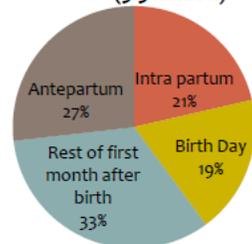
- Describe the importance of reviewing mother and baby every 15 minutes in first two hours after delivery
- Explain the importance of breast feeding within half an hour of delivery
- Discuss the importance of skin-to-skin contact and rooming-in in preventing hypothermia of newborns
- Describe management of hypothermia in newborns
- Demonstrate positioning and attachment during breast feeding using breast model



2

Immediate Postpartum Care

Neonatal mortality and stillbirths (5.5 million)



- Many of the maternal and newborn deaths occur on the day of birth
- Even for the deaths occurring in the rest of post partum period, care given at the time of birth is an important influencer
- Deaths due to post partum haemorrhage, sepsis, hypertensive disorder of pregnancy, hypothermia, etc. can be avoided by regular assessment of mother and newborn during immediate postpartum period



Source: JE Lawn et al.; Every newborn, progress, priorities and potential beyond survival; *The Lancet* (DOI:10.1016/S0140-6736(14)60496-7).

3

Care of Mother within 1-2 hours after Birth

Check the mother every 15 minutes for the following (for 2 hours)

- General condition, BP and pulse
- Uterus, whether well-contracted or not
- Perineum and vagina for amount of vaginal bleeding, conditions of suture or any swelling/haematoma

Encourage woman

- To maintain hydration
- To initiate breastfeeding within half an hour
- To understand importance of colostrum feeding
- To not to give any pre lacteal feed to baby

Explain

- Danger signs to mother and companion
- (refer to SCC)



4

Care of Newborn within 1-2 hours after Birth

- Respiratory Rate
- Chest in drawing, grunting
- Body temperature

Assess

- Baby' color
- Baby's cry and activity
- Any congenital malformation
- Birth injury
- Umbilicus for any bleeding

Look

- Arrange for special care of pre-term and low birth weight babies
- Continue on demand and exclusive breast feeding



5

Care of Mother after Fourth of Stage

Check the mother every 6 hours

- General condition, BP and pulse
- Uterus, whether well-contracted or not
- Perineum and vagina for amount of vaginal bleeding, conditions of suture or any swelling/haematoma
- Calf tenderness

Encourage woman

- To pass urine
- To maintain ambulation
- To not to give any pre lacteal feed to baby (continue exclusive breastfeeding)
- To take nutritious diet with plenty of fluids

Explain

- Danger signs to mother and companion
- Perineal and hand hygiene
- Importance of delaying bath for at least 24 hours and 7 days for pre term and LBW babies
- Counsel on PFFP



6

Timely Identification and Management of Complication

- Be watchful for appearance of signs of any complications such as PPH, Eclampsia/Pre eclampsia based on the periodic assessment of mother's condition
- Manage complications as per protocols



7

Prevention of Hypothermia in Newborns

- Maintain temperature of labour room at around 25- 28 °C
- Dry the baby immediately after birth and wrap the baby in a pre-warmed towel
- Regularly monitor the temperature of the baby. Temperature below 36.5 °C is a cause of concern.
- In case new-born resuscitation is required, always perform it under a heat source i.e., radiant warmer
- Keep the baby in skin to skin contact with mother as long as possible
- Initiate breast feeding as early as possible (preferably with half an hour after delivery)
- Keep the baby adequately covered (cap, socks, etc.)
- Postpone the bathing of baby for at least 24 hours and at least for seven days for preterm and LBW babies
- In case there is need for transportation, maintain warmth of the baby



8

Management: Cold stress (36.5°C to 36°C)

- Cover adequately - remove cold clothes and replace with warm clothes
- Warm room/bed
- Take measures to reduce heat loss
- Ensure skin-to-skin contact with mother; if not possible, keep next to mother after fully covering the baby
- Breast feeding
- Monitor axillary temperature every ½ hour till it reaches 36.5° C, then hourly for next 4 hours, 2 hourly for 12 hours thereafter and 3 hourly as a routine



9

Management: Moderate Hypothermia (32.0°C to 35.9°C)

- Skin to skin contact
- Warm room/bed
- Take measures to reduce heat loss
- Provide extra heat
 - 200 W bulb
 - Heater, warmer, incubator
 - Apply warm towels



10

Management: Severe Hypothermia (<32°C)

- Provide extra heat preferably under radiant warmer or air heated incubator
- Rapidly warm till 34°C, then slow re-warming
- Take measures to reduce heat loss
- IV fluids: 60-80 ml/kg of 10% Dextrose
- Oxygen, Inj. vitamin K 1mg in term & 0.5 mg in preterm
- If still hypothermic, consider antibiotics assuming sepsis
- Monitor HR, BP, Glucose (if available)



11

Breastfeeding

- Immediate initiation of breast feeding is associated with 22% reduction in newborn mortality
- Early initiation and exclusive breastfeeding is critical to baby's adequate growth and protection against complications
 - Colostrum feeding is important for baby
 - No pre-lacteal feeds should be allowed for the baby
- Proper techniques of breast feeding is important for adequate feeding of the baby
- Status of feeding by newborn is also an indication of the general well being of the baby



12

Advantages of Breastfeeding

Benefits to mother

- Improve emotional bonding
- Readily available and affordable
- Exclusive breastfeeding is associated with a natural (though not safe) method of birth control (98% protection in the first six months after birth)
- It reduces risks of breast and ovarian cancer
- Helps women return to their pre-pregnancy weight faster, and lowers rates of obesity.



Benefits to baby

- Ideal food for newborns and infants
- Safe and contains antibodies
- Prevents hypothermia in newborns
- Adolescents and adults who were breastfed as babies are less likely to be overweight or obese.
- They are less likely to have type-2 diabetes and perform better in intelligence tests.

13

Breastfeeding: Signs of Good Attachment

Breast Feeding : Signs of good attachment

- Chin touching breast
- Mouth wide open
- Lower lip turned outward
- More areola visible above than below the mouth



A baby well attached to the breast



A baby poorly attached to the breast



14

Poor Attachment Results in:

- Pain or damage to nipple leading to sore nipple.
- Breast milk not removed effectively thus causing breast engorgement.
- Poor milk supply hence baby is not satisfied and irritable after feeding.
- Breast produces less milk resulting in frustrated baby who refuses to suck. This leads to poor weight gain.



15

Key Messages

- Review mother and newborn every 15 minutes during fourth stage of labor to detect any problem early
- Hypothermia can be prevented by simple evidence based practices like skin-to-skin contact and rooming-in
- Early initiation and exclusive breastfeeding is critical to baby's adequate growth and protection against complications and infections
- Proper techniques of breast feeding is important for adequate feeding of the baby
- Status of feeding by newborn is also an indication of the general wellbeing of the baby



Session 2.9

Prevention, Identification and Management of New Born Infections

- Antibiotics and referral
- ART for newborn

Duration: 30 minutes

Learning objectives

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

- Discuss various risk factors for newborn infection
- Explain the identification and management of neonatal infection with or without symptoms
- Describe infection prevention practices and giving antibiotics to reduce deaths of newborns due to sepsis
- Describe the doses of antibiotics when Facility Based Newborn Care (FBNC) is available or not
- Describe antiretroviral therapy for newborns born to HIV+ve mother

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on prevention, identification and management of infections in newborn (PPT 2.9)
- SCC

Instructions

- Use presentation (PPT 2.9) for this session. Introduce the session on neonatal sepsis and present the objectives of the session.
- Discuss that neonatal sepsis is the leading cause of neonatal deaths which can be easily reduced by simple evidence based practices.
- Explain various risk factors for newborn infections.
- Neonatal sepsis can be:
 - Early onset–within 72 hours in which the source of infection is from the genital tract or delivery area
 - Late onset–after 72 hours when the source of infection is from the hospital or community
- Explain the prevention, identification and management of neonatal sepsis with doses of antibiotics with or without FBNC. In asymptomatic newborns whose mother had infection, the role of antibiotics is prophylactic and in newborns with symptoms of infection, the role of antibiotics is therapeutic.
- Describe the antiretroviral therapy for neonates born to HIV+ve mothers. All babies born to HIV infected mothers will receive Nevirapine syrup once daily upto 6 weeks.
- Ask one learner to read the points of pause point 3 from SCC loudly and discuss the assessment of newborns for the
 - Need of antibiotics, their indications and doses.
 - Special care

- Referral
- ART for newborn

Key messages

Summarize the session by ensuring these key points are mentioned:

- Neonatal sepsis is the leading cause of neonatal deaths which can be reduced by simple evidence-based practices
- Risk factors for newborn infections may be related to mother and delivery or to newborn and his/her care
- All the babies born to HIV infected mothers must be given Nevirapine syrup daily upto 6 weeks.

Presentation 2.9



Prevention, Identification and Management of Infection in Newborn

Learning Objectives

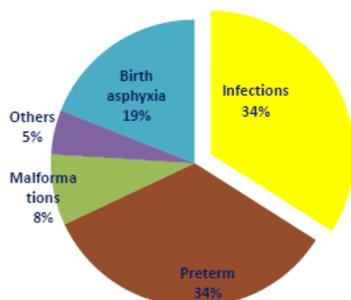
By the end of this session, learners will be able to:

- Discuss various risk factors for newborn infection
- Explain the identification and management of neonatal infection with or without symptoms
- Describe infection prevention practices and giving antibiotics to reduce deaths of newborns due to sepsis
- Describe the doses of antibiotics when FBNC is available or not
- Describe antiretroviral therapy for newborns born to HIV+ve mother



2

Infection in Neonatal Period is a Leading Cause of Deaths in Newborn



Deaths from neonatal sepsis can be reduced by

- Strict hand-washing practices while handling the baby
- Reducing un-necessary PV examinations
- Maintaining hygiene during delivery
- Early initiation of exclusive breast feeding
- Timely and judicious use of antibiotics

Small babies (Pre term and SGA) are at a higher risk of acquiring infection and may require higher focus

3

Risk Factors for Newborn Infection

Related to mother and delivery

- Failure to follow Infection prevention practices
- Poor monitoring of mother's temperature during
- Frequent vaginal examinations
- PROM >18 hrs
- Prolonged labour >24 hrs/obstructed labour
- Pre-existing STIs/RTIs

Related to Newborn care

- Very low birth weight, prematurity
- Lack of exclusive breastfeeding
- Poor hygiene and frequent handling
- Unneeded newborn interventions such as routine suctioning of newborn

4

Preventing Infection in Newborns

- Appropriately manage maternal infections and use antibiotic prophylaxis wherever needed
- Do not do un-necessary PV examinations during labour
- Maintain "Six Cleans" during delivery
- Perform hand hygiene every time before handling the baby
- Ensure early initiation of breast feeding and exclusive breast feeding, avoid pre-lacteal feeds
- Ensure dry cord care
- Avoid unnecessary interventions for the baby such as routine suctioning of newborns after birth



5

Principles for Antibiotics Use in Newborns

When to use antibiotics:

- ✓ Clinical signs of neonatal sepsis
- ✓ Mother had uterine infection during intrapartum period and upto 3 days (in these cases sepsis can develop)

Way to use:

- Therapeutic: Newborn with symptoms of infection
- Prophylactic: Asymptomatic newborns whose mother had infection

Neonatal sepsis can be:

- ✓ Early onset– within 72 hours (source of infection genital tract or delivery area)
- ✓ Late onset– after 72 hours (source of infection hospital or community)

- For the purposes of this presentation, we will focus only on early onset neonatal sepsis

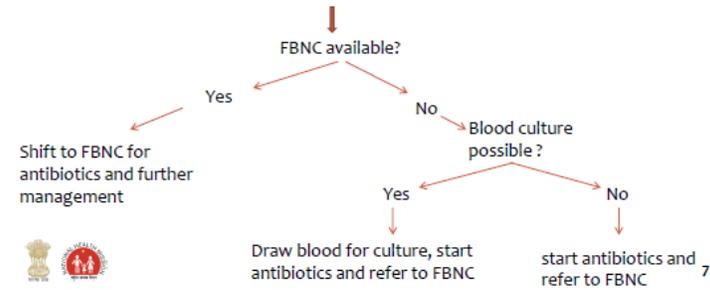


6

Asymptomatic Newborns with Maternal Conditions

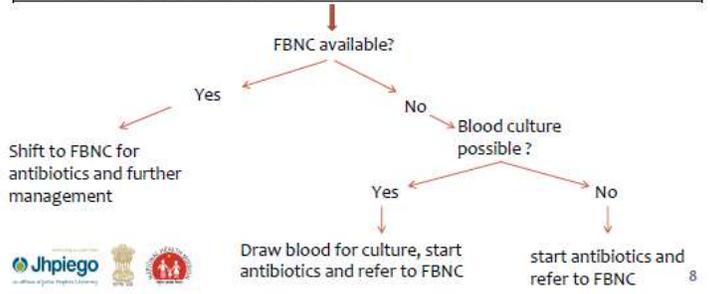
If following conditions were present at the time of delivery:

- Mother had foul smelling discharge
- Mother had fever (temp 38°C)
- Baby born <35 weeks of gestation with ROM >18 hours before birth



Newborns with Symptoms of Infection

- Baby has very fast breathing (>60 per minute) or very slow breathing of newborn (<30 per minute) chest in drawing, grunting
- Convulsions
- Sick looking baby
- Baby has stopped breastfeeding
- Excessive crying or lethargic baby
- Fever (Temperature above 38°C)
- Hypothermic baby, not responding to warmth (Temperature below 36°C)
- Umbilical redness extending to skin or draining pus



Dose and Type of Antibiotic Before Referral if FBNC is Not Available

Weight	Dose of Inj Gentamicin	Dose of Amoxicillin
Less than 1.5 kg	To be referred to higher facility	
Above 1.5 kg – upto 2.0 kg	0.2 ml	2 ml
Above 2.0 kg – upto 3.0 kg	0.3 ml	2.5 ml
Above 3.0 kg – upto 4.0 kg	0.4 ml	3 ml
Route of administration	Intramuscular	Oral
Dosage	5 mg/kg/dose Once a day	25mg/kg/dose Twice a day



9

Full Dose of Antibiotics to Newborn (FBNC)

Antibiotic	Each dose	Frequency		Route	Duration
		<7 days age	>7 days age		
Inj. Ampicillin or	50 mg/kg/dose	12 hourly	8 hourly	IV, IM	7-10 days
Inj. Cloxacillin	50 mg/kg/dose	12 hourly	8 hourly	IV	7-10 days
AND Inj. Gentamicin or	2.5 mg/kg/dose	12 hourly	8 hourly	IV, IM	7-10 days
Inj. Amikacin	7.5 mg/kg/dose	12 hourly	8 hourly	IV, IM	7-10 days



10

Supportive Care for Newborn with Signs of Infection

- Provide warmth, ensure consistently normal temperature
- Start intravenous line
- Inject Vitamin K (according to the weight) intramuscularly if not given immediately after birth
- Provide bag and mask ventilation with oxygen if breathing is inadequate
- Provide gentle physical stimulation, if apnoeic
- Avoid enteral feed if hemodynamically compromised



11

Anti Retroviral Therapy for Newborn

- All the babies born to HIV positive mothers should receive 6 weeks of once daily* Nevirapine syrup
- Such newborns should be referred to ART centers after delivery after appropriate care

Birth Weight of infant	Dose (mg)	Dose (in ml)	Duration
Birth weight >2.5 Kg	15 mg once daily	1.5 ml once a day	Upto 6 weeks irrespective of exclusively breast fed or exclusive
Birth weight >2Kg to <2.5 Kg	10 mg once daily	1 ml once a day	
Infants with birth weight <2 Kg	2 mg/kg once daily	0.2 ml/kg once daily	Replacement fed

12

Key Messages

- Neonatal sepsis is the leading cause of neonatal deaths which can be reduced by simple evidence based practices
- Risk factors for newborn infections may be related to mother and delivery or to newborn and his/her care
- All the babies born to HIV infected mothers must be given Nevirapine syrup daily upto 6 weeks.



Session 2.10

Special Care for Newborns with Small Size at Birth

- Thermal management, including KMC
- Assisted feeding
- Infection prevention

Duration: 45 minutes

Learning objectives

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

- Discuss the increased risk of hypothermia, infections, hypoxia, poor sucking and hypoglycemia among preterm and low birth weight babies
- Discuss KMC, assisted feeding and infection prevention practices to protect babies against problems
- Demonstrate KMC and palladi feeding using KMC pouch and simulation model for pre-term newborn

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on special care for small babies (PPT 2.10)
- KMC pouch
- Small size baby simulator
- KMC and assisted feeding checklist (Insertion of OG tube)

Instructions

- Use presentation (PPT 2.10) for this session. Introduce the session and present the objectives of the session
- Explain that prematurity is one of the leading causes of neonatal deaths and can be prevented by extra thermal care including KMC, prevention and management of infection, and assisted feeding.
- Ask learners to recollect different ways to prevent hypothermia.
- Explain KMC, its benefits, duration and positioning of the baby. KMC is a simple method of care for low birth weight infants and includes early and prolonged skin-to-skin contact with the mother (or a substitute caregiver) and exclusive and frequent breastfeeding
- Describe that minimum duration of a KMC session should be one hour because frequent handling may be stressful for the infant
- Describe assisted feeding, what, how often and how much to feed. The best choice for Low Birth Weight (LBW) infants is mother's milk and the ultimate aim for feeding of small babies is to ensure direct, exclusive breastfeeding.

- Explain the prevention and management of infection in preterm babies. Small babies are at high risk for infection and sepsis. Follow all essential infection prevention practices and be extra vigilant for signs of sepsis
- Demonstrate breastfeeding with correct position and attachment using breast model and newborn simulator. Use checklist for breastfeeding (given in folder of session 2.8)
- Demonstrate KMC and assisted feeding (insertion of OG tube) using KMC pouch and small size baby simulator. Use checklists of KMC and assisted feeding through OG tube during demonstrations. Clarify any doubts.

Key Messages

Summarize the session by enquiring the key points are mentioned:

- India has highest number of preterm births and also accounts for maximum number of neonatal deaths due to prematurity
- Extra thermal care including KMC, prevention and management of infections and assisted feeding can reduce the chances of neonatal deaths
- Small babies may require assisted feeding to ensure adequate nutrition

Presentation 2.10



Special Care for Newborns with Small Size at Birth

Learning Objectives

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

- Discuss the increased risk of preterm and low birth weight babies for hypothermia, infections, hypoxia, poor sucking and hypoglycemia
- Discuss KMC, assisted feeding and infection prevention practices to protect babies against problems
- Demonstrate KMC and palladi feeding using KMC pouch and primi-natalie



2

80% of Newborn Deaths in South Asia occur in Newborns with Small Size at Birth

Newborns with Small Size at Birth

(>80% newborn deaths occur in this group)

Preterm (<37 weeks)

(65% deaths)

Small for Gestational Age
(19% deaths)

- >75% deaths of preterm births can be prevented without intensive care
- Mortality among small babies can be prevented by special care of these babies over and above routine care. This includes :
 - Extra thermal care including KMC
 - Prevention and management of infections
 - Assisted feeding
 - Prevention and management of complications such as Asphyxia, hyperbilirubinemia, neonatal encephalopathy

3

Preventing Hypothermia in Newborns with Small Size at Birth

- Follow all tips for prevention of hypothermia in newborn
(Recap)
- Postpone the bathing at least for seven days
- **Practice Kangaroo Mother Care**
- In case there is need for transportation, maintain warmth of the baby



4

Kangaroo Mother Care

- A simple and extremely valuable method of care for stable, low birth weight infants
- KMC includes
 - Early and prolonged skin-to-skin contact with the mother (or a substitute caregiver)
 - Exclusive and frequent breastfeeding
- Different from routine skin-to-skin care that is recommended by WHO for all newborns.



5

Benefits of KMC

Reduced mortality	Reduced rates of infection	Reduced rates of hypothermia
Improved weight, length, and head circumference	Increased breastfeeding rates	Better mother-infant bonding



6

Pre-requisite for Providing KMC

- Effective counselling to overcome

- ✓ socio-cultural barriers and
- ✓ anxiety to handle a LBW infant

- Clothing-

- ✓ It can be provided using any clothing that is acceptable to the mother and the family
- ✓ The infant should be dressed in cap, socks, disposable diapers and front-open sleeveless shirt or 'jhabala' made of a soft natural fabric like cotton

Figure 1: Examples of KMC supporter

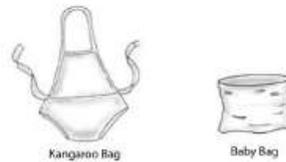


Figure 2: Example of clothing for infants



7

KMC Position and Handling



- The infant should be placed between the mother's breasts in an upright position
- The head should be turned to one side and in a slightly extended position to keep airway open and allow eye to eye contact
- The hips should be flexed and abducted in a "frog" position
- The arms should also be flexed

8

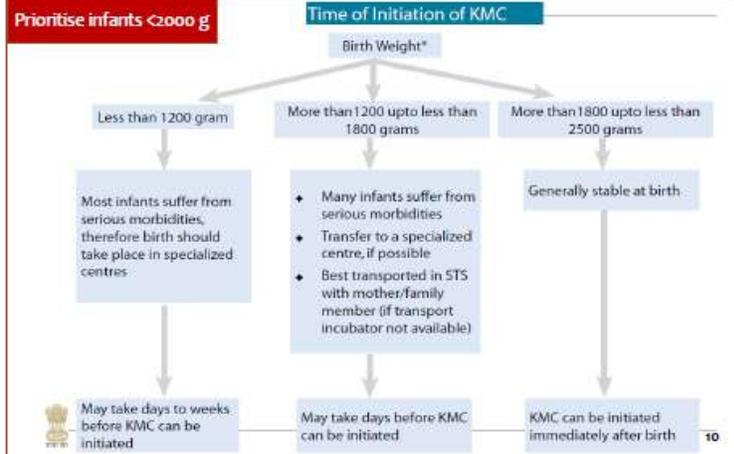
KMC Position and Handling

- The infant's abdomen should be at the level of the mother's epigastrium
- Support the infant from the bottom with a sling/binder
- A semi-reclining position (40-45 degree) is to be adopted while sleeping. This can be achieved with the help of 3-4 pillows on the hospital bed or special semi-reclining chairs
- The mother carrying an infant in the KMC position can walk, stand, sit, or engage in different activities



9

When to Initiate KMC



Duration of KMC

- Minimum duration of a KMC session: at least one hour
- During recovery period: hold the baby in skin-to-skin contact for short periods of time (one to three hours at a time)
- Baby stable and doesn't require special care (e.g. oxygen or IV fluid): begin continuous KMC
- Remove infants from skin-to-skin contact only for changing diapers and clinical assessment
- When should KMC be discontinued: Often an infant is taken off kangaroo mother care when gestation reaches term or the weight is around 2,500 grams.



11

Feeding during KMC

- Initially, breastfeed is given at fixed intervals of two hours and not on demand, to ensure an adequate and assured minimal intake
- The mother should be explained how to breastfeed while the infant is in KMC position
- Holding the infant near the breast stimulates milk production
- Mother may express milk while the infant is still in KMC position



12

Monitoring of Infant

Infant should be monitored for (During initial stages)	Mother should be trained to see these danger signs
<ul style="list-style-type: none">• Clear airway• Regular breathing• Colour is pink and• s/he is maintaining temperature	<ul style="list-style-type: none">• Respiratory problems• Feeding difficulty• Change in colour• Hypothermia



13

Assisted Feeding for Small Babies

Small babies may require assisted feeding to ensure adequate nutrition:

- Preterm infants have feeding difficulties due to inability to coordinate suck, swallow and breathing; immature and sluggish gut; systematic illness
- Full term small-for-gestational age infants suffer from poor attachment and sucking efforts on breast, poor swallowing, vomiting, regurgitation or abdominal distension if they are weak or sick



Assisted feeding technique may differ according to the weight and age of baby

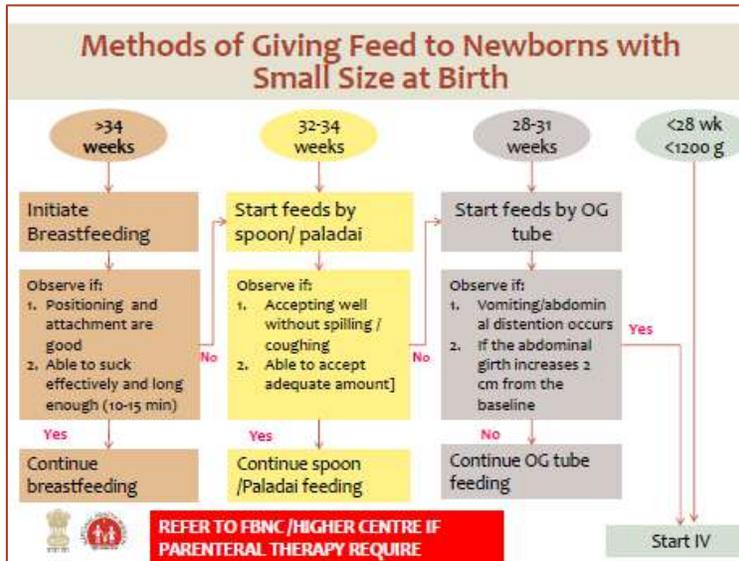
14

What to Feed to Newborns with Small Size at Birth

- The best choice for LBW infants is mother's milk
- Expressed donor milk from other lactating mothers is the second choice
- Formula milk
- Animal Milk should be the last choice
- There is NO place for bottle feeding in the care of infants
- In very small babies (<28 weeks/<1200gm) IV fluids may be needed



15



How Often and How Much to Feed

- Every 2 hours at least 12 times in a day
- Fluid requirement are met by enteral feeds or intravenous fluid or both
- Increase by 15ml/kg/day to maximum 150ml/kg/day by end of first week of life

Day of life	Fluid requirement ml/kg/day	
	Birth weight ≥ 1,500 g	Birth weight < 1,500 g
1	60	80
2	75	95
3	90	110
4	105	125
5	120	140
6	135	150
7	150	150

- ### Important Points to Remember for Assisted Feeding
- The ultimate aim for feeding of small babies is to ensure direct, exclusive breastfeeding.
 - An infant given alternative oral feeds (tube, spoon, palladai, cup) should be given frequent opportunity to suckle at the breast before the next feed.
 - An infant on IV fluids should be given small intragastric feeds. If the infant tolerates these, the volume can be increased and intravenous fluids reduced.
 - Adequate urine output (8-12 times for day) and weight gain (15-20 grams per day) are two parameters to monitor the adequacy of nutrition.

Prevention of Infection in Newborns with Small Size at Birth

Small babies are at high risk for infection and sepsis. Follow infection prevention practices and look for signs of sepsis.

Before Delivery	After Birth
<ul style="list-style-type: none"> • Appropriately manage maternal infections and use prophylaxis wherever needed • Use of partograph • Do not do un-necessary PV examination during labour • Maintain “Six Cleans” during delivery 	<ul style="list-style-type: none"> • Avoid unnecessary interventions for the baby such as routine suctioning at birth • Perform hand hygiene every time before handling the baby. Avoid frequent handling • Facilitate early and exclusive breastfeeding • Ensure dry cord care • Avoid KMC with infected person

Management of Infection in Small Babies

- Give antibiotics and supportive therapy as per the protocols of sepsis management discussed earlier
- All newborns with small size at birth with infection should be cared for only at designated FBNCs



20

Key Messages

- India has highest number of preterm births and also accounts for maximum number of neonatal deaths due to prematurity
- Extra thermal care including KMC, prevention and management of infections and assisted feeding can reduce the chances of neonatal deaths
- Small babies may require assisted feeding to ensure adequate nutrition



21

Session 2.11

Summary and Review of Day Two Activities

Duration: 10 minutes

Learning objectives

By the end of the session, the learners will be able to:

- List key points and activities covered during day two of the training
- Provide their review of second day of the training

Resources/Materials Needed

- Copy of Agenda
- Notepad and pen

Pre-preparation of the trainer

- Familiarize with the contents of the session
- Identify and write topics on paper chits to distribute to the learners for home assignment and recap of day-two for the first session of day three

Instructions

- Ask the learners to summarize the day by mentioning key points covered during the sessions of the day.
- Ask learners to pick a chit from the bowl for home assignment and recap the next day.
- Ask the learners to write at least one point which they felt was good during the day and they learned something new and one point which they did not like. The trainers to collect the feedback from the learners to review later.

DAY THREE SESSION PLANS

Section Four Essential Practices at the Time of Discharge

Session 3.1

Recap of Day Two and Agenda Day Three

Duration: 15 minutes

Learning objective

By the end of the session, the learners will be able to:

Recapitulate the key messages covered during the sessions discussed on day two

Resources/materials needed

- Ball
- SCC
- Agenda of day 3 on flip chart, stand, marker pens

Instructions

- Welcome the participants on the final day of the training.
- Start the session with a recap of key points discussed on day two. For recap, play the game with ball. Pass the ball from one learner to the other and ask each to summarize 1-2 key points of one of the sessions from previous day. If a learner gives a wrong message or forgets any key information, ask other learners to raise their hands, and call on them to give the correct information.
- Encourage learners to use the SCC while discussing key points from previous day's sessions.
- For good and complete responses, compliment the learners.
- Clarify doubts if any from previous day's session.
- Describe the agenda of day three to the participants.

Session 3.2

Assessing and Managing Postpartum Complications in Mothers

- Puerperal sepsis
- PPH

Duration: 20 minutes

Learning objectives

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

- Define maternal/puerperal sepsis
- Enumerate the risk factors for maternal sepsis
- Explain ways to prevent sepsis
- Describe the causes, symptoms, signs and management of sepsis
- List the indications for antibiotics in mother
- Discuss the GoI's recommendation of broad spectrum antibiotics

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on managing postpartum complications-puerperal sepsis (PPT 3.2.1) and managing postpartum complications-delayed PPH (PPT 3.2.2)
- SCC

Instructions

- Use PPT 3.2.1 for puerperal sepsis and PPT 3.2.2 for delayed PPH. Introduce the session to the learners and present the objectives using PPT 3.2.1.
- Using presentation 3.2.1, explain that puerperal sepsis is one of the leading causes of maternal deaths and can be prevented by following IP practices, reducing PV examinations and early identification of and judicious use of antibiotics.
- Define maternal sepsis and describe the signs and symptoms of maternal sepsis.
- Present the risk factors for maternal sepsis related to the woman during pregnancy, delivery and postpartum period.
- Describe that maternal/puerperal sepsis is a preventable condition and can be prevented by simple measures before, during and after delivery.
- Describe flow diagram on principles of management of puerperal sepsis.
- Summarize key messages on puerperal sepsis by using the summary slide.
- Discuss the importance of antibiotics at appropriate times for management of maternal sepsis. Ask one of the learners to read aloud the indications for antibiotics in mother from SCC.

- Discuss the GoI recommendations of broad spectrum antibiotics for indicated cases. These antibiotics are oral/injectable ampicillin, gentamycin and metronidazole. Antibiotics should not be used for women in labour without indication.
- Show presentation 3.2.2 for delayed PPH after 24 hours of childbirth.
- Explain that delayed PPH is mainly because of retained placental bits and infection.
- In this case antibiotics to the mother, along with oxytocin drip, can control both the conditions.

Key messages

Summarize by stating the key points covered during the session.

- Puerperal sepsis is one of the leading causes of maternal deaths and can be prevented by following simple practices during labour, delivery and immediate postpartum period.
- In case there are signs of infection, the woman should receive appropriate dose of antibiotics.
- At periphery, Auxiliary Nurse Midwife (ANM) should identify the indications for antibiotics and give first dose before referral.
- Antibiotics should be given to the woman only if she has the specific indications.
- Delayed PPH is mainly because of retained placental bits and infection, so antibiotics and oxytocin should be given, and if at the subcentre, the woman must be referred to a functional FRU for care after giving the first dose.

Presentation 3.2.1



Managing Complications in Postpartum Period: Puerperal Sepsis

Learning Objectives

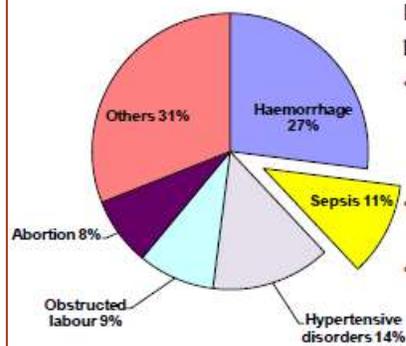
By the end of this session, the learners will be able to:

- Define maternal/puerperal sepsis
- Enumerate the risk factors for maternal sepsis
- Explain ways to prevent sepsis
- Describe the causes, symptoms, signs and management of sepsis
- List the indications for antibiotics in mother
- Discuss the GoI's recommendation of broad spectrum antibiotics



2

Puerperal Sepsis is a Leading Cause of Maternal Death in Postpartum Period



Source- WHO 2014



Puerperal sepsis can be prevented and managed by:

- Maintaining hygiene and hand washing and following strict infection prevention practices before handling mother
- Reducing frequent PV examination during labour
- Early identification and judicious use of antibiotics in mothers showing signs of infection

3

Diagnosis

Maternal sepsis:

Maternal sepsis in general also called Puerperal Sepsis is an infection of the genital tract at any time between the onset of rupture of membranes or labour and the 42nd day following delivery or abortion in which any two or more of the following signs and symptoms are present:

- Fever of >100.5 Fahrenheit ($>38^{\circ}\text{C}$)
- Abnormal, Foul smelling vaginal discharge
- Lower abdominal pain
- Subinvoluted uterus which is tender



4

Risk Factors

Client-related (Maternal)

- Pre-existing STIs/RTIs
- Not immunized against tetanus
- Pre-existing diabetes
- Poor patient hygiene
- Pre-existing anaemia and malnutrition

Related to delivery

- Failure to follow Infection prevention practices
- Poor monitoring of mother during and after labour
- Frequent vaginal examinations
- PROM >18 hrs
- Prolonged/obstructed labour >24 hrs
- C-section/ instrumental delivery
- Manipulations high in the birth canal
- Dead tissue in the birth canal
- Unrepaired vaginal/cervical lacerations
- PPH



5

Prevention of Maternal Infection

Puerperal sepsis is to a great extent preventable

Measure to be taken in

Before and during delivery

- Emotional support by allowing companion
- Use of partograph to avoid prolonged labor
- Limit vaginal examination
- Asepsis during delivery
 - ✓ 6 CLEANS
 - ✓ Hand washing, HLD gloves, instruments and equipment
- Delivery by trained personnel

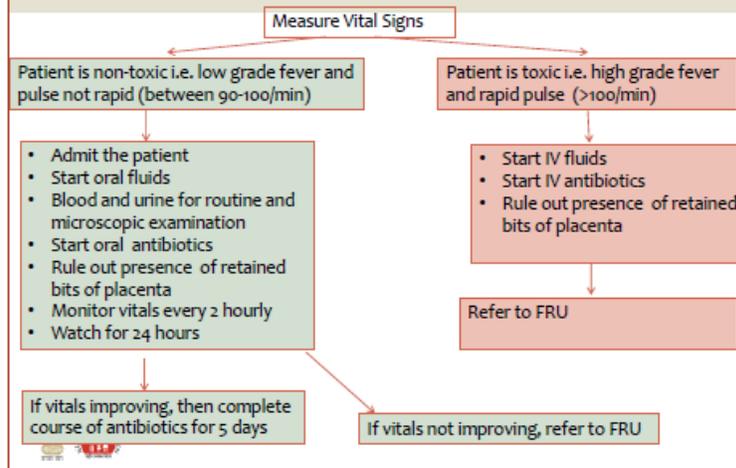
After delivery:

- Maintain perineal hygiene
- Use of clean sanitary pads



6

Principles of Management of Puerperal Sepsis



Recommended Antibiotic to Mother

Not very Sick Mother

Ampicillin 1 gm - 6 hourly oral
 Metronidazole 400mg - 8 hourly oral
 Gentamycin 80 mg, BD Intra Muscularly

Very Sick Mother

Ampicillin 1 gm - 6hrly Intravenous
 Metronidazole 500mg -IV 8 hourly
 Gentamycin 80 mg, BD Intra Muscularly

If mother is well enough to take oral medicine, administer drugs orally only



8

Key messages

- Puerperal sepsis is one of the leading causes of maternal deaths
- Puerperal sepsis is to a great extent preventable
- Antibiotics should be given to the woman only if they are indicated
- At periphery, ANM should identify the indications for antibiotics and give first dose before referral



9

Presentation 3.2.2



Assessing and Managing Post Partum Complications: PPH

Most Important Complications Encountered in Postpartum Period

- Post Partum Haemorrhage
- Puerperal sepsis



2

Delayed PPH

Occurs 24 hours after delivery up to six weeks postpartum.

Causes:

- Retained placental fragments
- Infection in the uterus



3

Management of Delayed PPH

- Give Inj. Oxytocin 10 IU I/M stat
- Start IV infusion of 20 IU Oxytocin in 500 ml of Ringer Lactate/Normal saline at rate of 40-60 drops/min
- Suspect infection if fever and/or foul smelling vaginal discharge
- Give antibiotics as per protocol



4

Key message

- Delayed PPH is mainly because of retained placental bits and infection
- Antibiotics and oxytocin should be given
- The woman must be referred to a functional FRU for care after giving the first dose



5

Session 3.3

Postpartum Family Planning (PPFP) Counselling Return to fertility, healthy timing and spacing of pregnancy, postpartum family planning options

Duration: 30 minutes

Learning objectives

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

- Define counselling, counselling approach (GATHER) informed choice and informed consent
- List out the benefits of FP for mother and baby and healthy Timing and Spacing of Pregnancy (HTSP)
- Describe the importance of involving men in FP
- Describe the rationale for PPFP, unmet need and return to fertility
- Enumerate the different PPFP methods with timing of initiation
- Describe the myths related to different FP method with clarifications
- Demonstrate counselling through role play by using counselling flip book, kit and other job aids according to the steps in counselling checklist

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source
- Presentation on PPFP counselling (PPT 3.3)
- Flip chart/white board stand, markers
- PPFP counselling flip book and kit
- PPFP counselling checklist
- Job aids–timing of initiation, effectiveness chart and ANC counselling guide
- Role play situation (PPT 3.3)

Instructions

- Introduce the session by recollecting the pie diagram on causes of maternal deaths and explain that unsafe abortion is one of the important causes of maternal deaths. Present the objectives of the session. Tell the group that unwanted pregnancies may lead to unsafe abortions and deaths which can easily be prevented by counselling women on PPFP.
- Describe the benefits of family planning for both mother and baby and risks of not using it.
- Explain HTSP with WHO recommendations for spacing the next pregnancy after a child birth and after abortion. WHO and GoI recommend birth to pregnancy interval of 2 years, abortion to pregnancy interval of 6 months and delay first pregnancy until the woman is 20 years of age. This is called healthy timing and spacing of pregnancy.
- Explain the unmet need for FP, rapid and unpredictable nature of return to fertility after childbirth and abortion and rationale for PPFP as one of the most optimum times to adopt an appropriate family planning method. A woman can conceive within a month of childbirth

even before her menses start if she is not breastfeeding, so PPFPP is very important to prevent an unwanted and unplanned pregnancy. Explain terms like counselling, informed choice and informed consent.

- Explain and show different PPFPP methods through FP counselling kit or contraceptive samples. Several options for PPFPP are available but suitability for the woman depends on her breastfeeding status.
- If she is breast feeding she can use barrier method, LAM, IUCD, male or female sterilization. PPIUCD can be inserted post placental, immediate postpartum and intracesarean or after 6 weeks postpartum
- Female sterilization can be done within 7 days of childbirth or after 6 weeks of pregnancy. Male condoms or male sterilization can be performed at any time as these are used by male partner.
- Combined oral contraceptive pill cannot be given in breastfeeding woman as they decrease the amount of breast milk and increase the chances of thrombosis.
- Tell the group about timing of initiation of various methods during the postpartum period and whether the woman is providing breastfeeding to the baby or not. Discuss the effectiveness of different contraceptives.
- Describe different myths related to FP methods and explain their facts. Stress that it is very important to address the myths and misconceptions about family planning methods which the woman or couple may have during counselling. This helps for better acceptance and continued use of the method.
- Discuss that counselling for family planning must be done using the GATHER approach. Explain briefly each component of this approach using the counselling checklist.
- Demonstrate counselling approach and steps through a role play situation given in the PPT 3.3 and using family planning kit, flip book and job aids. During counselling it is important to inform the client about how the method acts, its effectiveness, duration of effectivity, its advantages, limitations, side effects and when to return for care.
- Explain that a properly counselled and well informed client will accept and continue the method and will be satisfied with it.

Key messages

Summarize by stating the key points covered during the session.

- Unsafe abortions is one of the important causes of maternal deaths and this can be prevented by family planning and safe abortion services
- HTSP helps better maternal, neonatal and family health
- The high unmet need for FP in postpartum period can be fulfilled through PPFPP counselling and adopting an appropriate method
- It is important to involve men in FP counselling as they are final decision makers and have special FP needs.

Presentation 3.3



Postpartum Family Planning (PPFP) Counselling

Learning Objectives

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

- Define counselling, counselling approach (GATHER) informed choice and informed consent
- List out benefits of FP for mother and baby and healthy Timing and Spacing of Pregnancy (HTSP)
- Describe the importance of involving men in FP
- Describe the rationale for PPFP, unmet need and return to fertility
- Enumerate different PPFP methods with timing of initiation
- Describe the myths related to different FP method with clarifications
- Demonstrate counselling through role play by using counselling flip book, kit and other job aids according to the steps in counselling checklist



2

What is Counselling?

Counselling is a two way communication between a health care worker and a client (or a couple) for the purpose of confirming or facilitating a decision by the client, or helping the client address problems or concerns



3

GATHER Approach in Counselling

- G: Greet
- A: Ask
- T: Tell
- H: Help
- E: Explain
- R: Return



4

Principles of Family Planning Counselling

- Maintain privacy
- Ensure confidentiality
- Be non-judgmental
- Use simple, culturally appropriate and easy to understand language
- Use good interpersonal communication skills
- Be brief, simple and specific with key messages
- Encourage the client to ask questions and express any concern
- Use AV aids, anatomic models and contraceptive samples
- Provide feedback, repeat key information
- Always verify what client has understood by having the client repeat the key messages



5

Counselling and Motivating Men

Why is it important to counsel men on FP or involving men in FP counselling?

- Men are final decision makers in many families
- Men will know how to protect their health, their wives' and children's health
- Men have special counselling needs, as
 - They need to use or support women's use of FP methods
 - They have less information
 - They have serious misconceptions and concerns



6

FP for Mother

Benefits if practiced	Risk if not practiced
<ul style="list-style-type: none"> • Reduced risk of complications associated with pregnancies • Extra time to take care for her baby • Will breastfeed longer, • May be more rested and well nourished so as to support the next healthy pregnancy • May have more time for herself, children and family • More time to prepare for next pregnancy 	<ul style="list-style-type: none"> • Increased risk of pregnancy complications • Increased risk of miscarriage • More likely to induce abortion • At greater risk of maternal death



7

FP for Newborn

Benefits if practiced	Risk if not practiced
<ul style="list-style-type: none"> • More likely to be born strong and healthy • Breastfed for a longer period, so health and nutritional benefits • Enhanced mother-baby bonding by breastfeeding, facilitating child's overall development • Mothers are better able to meet the needs of their newborns 	<ul style="list-style-type: none"> • Higher chance of Newborn and infant deaths • Greater chance of pre-term low birth weight baby • If breastfeeding is stopped before 6 months: <ul style="list-style-type: none"> ✓ the newborn does not experience the health and nutritional benefits of breast milk ✓ diminished mother-baby bonding affecting baby's development



8

Healthy Timing and Spacing of Pregnancy (HTSP)

Key Messages:

- Delay the first pregnancy
- For spacing after a live birth: The recommended interval before attempting the next pregnancy is at least 24 months
- For pregnancy after an abortion: The recommended interval before attempting the next pregnancy is at least 6 months



9

Return to Fertility

प्रसव के बाद गर्भधारण की संभावना



10

Importance of Postpartum Family Planning

- High unmet need for family planning in postpartum period
- Women are most receptive in these 2 periods
- Women come in contact with the health facilities and providers
- Inadequate spacing between two pregnancies result in poor maternal and neonatal health outcomes



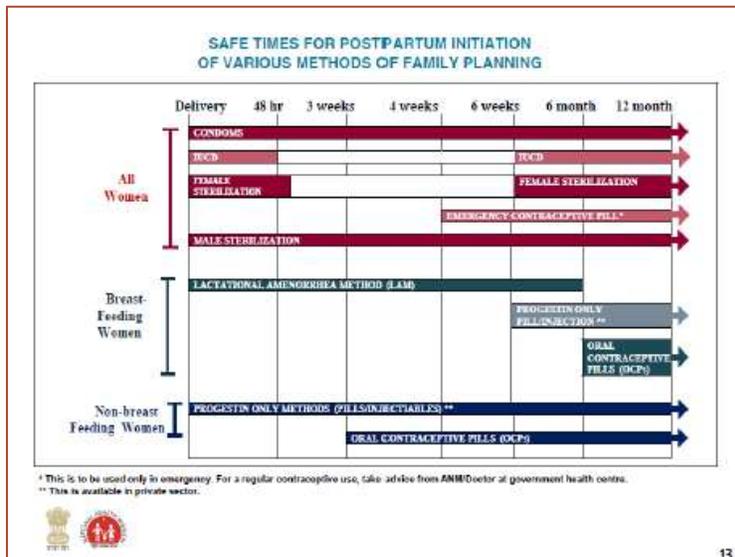
11

FP Methods

For Delaying the first child	For Healthy spacing between two childbirths	For Limiting future pregnancies
<ul style="list-style-type: none"> • Condoms • OCPs • IUCD • EC pills (not to be used as a routine method) 	<ul style="list-style-type: none"> • Condoms • IUCD • OCPs • LAM (Needs to be followed up by any other method, before completing 6 months after childbirth) 	<ul style="list-style-type: none"> • Female Sterilization • Male sterilization/Vasectomy • IUCD (after completing the total duration, the old IUCD should be replaced by a new one)



12



13

प्रसव के बाद कौन सी परिवार नियोजन विधि कब शुरू की जा सकती है

विधि	प्रारंभ करने पर कोई अंतर नहीं	अधिक प्रभावकारी
सर्जिकल कंडोम	<ul style="list-style-type: none"> प्रसव के तुरंत बाद प्रसव के 48 घंटे के अंदर प्रसव के 6 अंशक बाद 	अधिक प्रभावकारी
सर्जिकल स्टेरिलाइजेशन	<ul style="list-style-type: none"> प्रसव के 48 घंटे के अंदर प्रसव के 6 अंशक बाद 	अधिक प्रभावकारी
लैक्टेशन नियोजन विधि	शिशु की प्रजनन क्षमता का समाप्ति हो, माता कम से कम 6 माह की स्तनपान से वीर्यन को रोकने का प्रारंभ कर सकती है	
इन्ट्रायुनिवर्सल डिवाइस (IUD)	प्रसव के तुरंत बाद	प्रसव के 6 अंशक बाद
इन्ट्रायुनिवर्सल डिवाइस (IUD) - मुहूर्त	प्रसव के 6 अंशक बाद	प्रसव के 3 माह के बाद
ओरल कंडोमिनिवर्सल डिवाइस (ओरल कंडोमिनिवर्सल डिवाइस)	प्रसव के 6 अंशक बाद	प्रसव के तुरंत बाद
ओरल कंडोमिनिवर्सल डिवाइस (ओरल कंडोमिनिवर्सल डिवाइस)	प्रसव के 6 अंशक बाद	प्रसव के तुरंत बाद
सर्जिकल	प्रारंभ करने पर कोई अंतर नहीं	
	जब भी कौन चाहती है	

14



15

Common Misconceptions about OCPs

- I need to take the pill when I sleep with my husband
- I will face difficulty in getting pregnant again if I use OCPs for long
- Pills will make me weak
- The pill is dangerous and causes cancer
- Pill will cause the birth of twins or triplets in next pregnancy



16

Common Misconceptions about Condoms

- If a condom slips off during sexual intercourse, it might get lost inside woman's body
- There is too much danger of condoms breaking or tearing during intercourse
- Two condoms used together give better protection



17

Common Misconceptions about IUCD

- Thread can trap the penis during intercourse
- A woman with IUCD cannot do heavy work
- The IUCD might travel inside a woman's body to her heart or her brain
- Causes pregnancy outside the uterus
- Causes cancer or rotting of the uterus



18

Common Misconceptions about Female Sterilization

- Woman after sterilization loses desire for having sex
- Woman becomes sick and unable to do heavy work
- Needs for hospitalization for few days
- Shortens the life span of woman and may cause early menopause
- Makes the woman fat or obese



19

Common Misconceptions about Male Sterilization

- Vasectomy is same as castration
- Man will not enjoy sex or will not be able to perform sexual activity
- Man will become weak
- Scrotum will burst with sperms



20

Key Messages

- Unsafe abortions is one of the important causes of maternal deaths and this can be prevented by family planning and safe abortion services
- HTSP helps better maternal, neonatal and family health
- The high unmet need for FP in postpartum period can be fulfilled through PPFPP counselling and adopting an appropriate method
- It is important to involve men in FP counselling as they are final decision makers and have special FP needs.



21

Role-play

Kamla has come to the health centre to get information about family planning methods. Kamla has a 4 year old daughter and is currently pregnant. Her husband has agreed to her using a family planning method after this delivery, but he does not want to use condoms. She is nervous about the safety of family planning; she has heard that it can make it impossible to have more children.



Session 3.4

Discharge Counselling on Danger Signs for Mother and Baby and Seeking Care

Duration: 30 minutes

Learning objectives

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

- Describe the danger signs for mother and baby after delivery
- Describe the need and content of counselling mother and family at the time of discharge

Resources/materials needed

SCC

Instructions

- Introduce the session and present the objectives.
- Facilitate discussion on counselling the woman, her companion and other family members, if present at the time of discharge, on how to take care of the mother and the baby after discharge, and how to identify the danger signs to seek prompt medical care.
- Ask each learner one by one to read one danger sign for mother and the baby from SCC check point 4-before discharge, and discuss the importance of informing the woman and her family about them.
- Discuss the importance of danger signs for mother—bleeding may be due to delayed PPH; severe abdominal pain, severe headache, visual disturbance, breathing difficulty may be due to pregnancy induced hypertension; and abdominal pain, fever or chills, difficulty emptying bladder, and may be due to infections.
- Discuss the danger signs for the baby-fast/difficulty in breathing, fever, unusually cold, stops feeding well, less activity than normal may indicate infection, whole body becoming yellow may indicate jaundice

Key message

Summarize by emphasizing the key point covered during the session.

Discharge counselling on danger signs for mother and baby is very important so that mother and relatives are aware of them and can seek prompt care at the appropriate facility. This helps in reduction of maternal and neonatal morbidity and mortality and along with other care keeps the mother and baby healthy.

Session 3.5

Respectful Maternity Care

Duration: 15 minutes

Learning objectives

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

- Explain client's rights
- Describe the components of respectful maternity care (RMC)

Resources/materials needed

- LCD projector, screen, laptop, extension board, power supply, external speakers
- Video of respectful maternity care
- Client rights poster

Instructions

- Introduce the session by asking the group that as a careseeker how would you like to be treated if you were giving birth in your facility? List 2 things that you would want during your care. Probable answers may be- caring behavior of staff, empathy, support, trust, confidence, empowerment, gentle, respectful, effective communication. Tell that today we will discuss the client's right and the components of respectful maternity care and discuss the objectives of the session.
- Describe that in every country and community around the world, pregnancy and childbirth are very important events in the lives of women and families. These are also times of great vulnerability. The relationship with the maternity care system and with you as the caregiver and your behavior during this time is extremely important. Explain that, just as the behaviour and care you expect from the health staff for yourself, the same behaviour and care should be provided to all women coming to your health facility for care.
- All childbearing women need and deserve respectful care and protection; this includes special care to protect the mother-baby pair as well as highly vulnerable women (e.g., adolescents, ethnic minorities, and women living with physical or mental disabilities or HIV).
- Describe the realities of services at the facilities in general and in the labour room. Tell the group, that now we will see a video describing the respectful maternity care.
- Show the video on Respectful maternity care.
- Ask the group their reaction after seeing the video and tell the importance of RMC. Ask them what are the components of RMC and which ones do they feel are doable and they will practice after returning to their work site? Wait for the responses of the group and compliment them on their decision.
- Show the poster on client rights. Tell them that these posters are to be displayed at all facilities for the awareness of patients about their rights and what to expect at the health facility from the staff's behavior.

Key messages

Summarize by stating the key points covered during the session.

- Every woman has the right to the highest attainable standard of health, which includes the right to dignified, respectful health care. This can dramatically reduce global rates of maternal morbidity and mortality
- Disrespect and abuse during maternity care are a violation of women's basic human rights
- In providing services the focus should be on safe, high-quality, people-centered care

Session 3.6

Do's and don'ts during all four stages of labour

Duration: 45 minutes

Learning objectives

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

- Discuss various good and harmful practices during all stages of labour
- Explain how a harmful practice can be replaced with a good practice

Resources/materials needed

- Game instructions and paper slips of actions for do's and don'ts
- Bowl for the slips

Pre-preparation by the trainer

- Prepare separate paper slips with any one action performed during any stage of labour from the list of do's and don'ts written on it, folded and kept in a bowl
- Familiarize with the content of the session and the activity

Instructions

- Introduce the session by saying that we have covered all the key technical and practical contents of the training and will see what we have learned about the good and harmful practices during different stages of labour through a game. Present the objectives of the session.
- Divide the participants into two groups and ask them to choose a name for their group. This could be anything related to their work or area they work in.
- When the participants have organized themselves, explain them that they need to pick up one slip at a time from the bowl that will be circulated between the groups.
- Once they have picked up a slip, they need to read out aloud the message written on the slip and declare whether that activity/message comes under "Do's" or "Don't's" category.
- For each answer they need to provide an explanation in brief about the reason for their answer.
- Explain to the groups that for this activity, it is necessary that all group members need to attempt answer at least once. In case one group member is unable to provide reasonable explanation for the answer, others can contribute.
- For each correct response, the group will be awarded 10 points and no marks will be given for a wrong answer. Use the white board to keep track of the score for each group.
- Encourage all participants to actively participate in this group activity and applaud them for their correct answers.

- At the end of the game, conclude the activity by scoring the points gained by each team and give candies to the winning team or clapping by the whole group for the winning team.

Key messages

Summarize by stating the key points covered during the session.

- We should follow good labour practices for a safe childbirth leading to healthy mother and baby
- These simple, evidence based practices can reduce the chances of maternal and neonatal morbidity and mortality.

DAY THREE SESSION PLANS

Section Five

Creating a quality enabling environment in labour rooms

Session 3.7

Infection Prevention Practices and Biomedical Waste Management

Duration: 45 minutes

Learning objectives

By the end of the session, the learners will be able to:

- Discuss the principles of infection prevention (IP) and biomedical waste management
- Describe the concepts of infection prevention
- Describe the six standard universal precautions
- Demonstrate the steps of hand washing, wearing and removing sterile gloves, preparation of 0.5% chlorine solution, use of hub cutter and segregation of biomedical wastes
- Discuss the protocols for cleaning labour rooms and its equipment, technique to manage spillage as per GoI guidelines

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source, external speakers
- Presentation on infection prevention (PPT 3.7)
- VIPP cards
- Color coded bins, plastic tub, bleaching powder, plastic tea spoon, plastic/stick stirrer, plastic mug one litre capacity, 5 liters of water, plastic apron, utility gloves, shoes/shoe covers
- Non-sterile surgical gloves one pair for each learner and trainer plus a few extra of sizes 6½, 7 and 7½ depending on the profile of the expected learners
- Flip chart, stand, markers
- Poster on handwashing and video on processing of used instruments and cleaning labour rooms
- Handout-poster of hand washing
- GOI video on cleaning labour room

Pre-preparation by the trainer

- Prepare VIPP cards with waste items written on each
- Prepare a station with colour coded waste bins and VIPP cards
- Familiarize with the content and activity of the session

Instructions

- Introduce the session by stating that even if best of practices are followed but infection prevention practices are neglected, all the effort will go waste as the woman and the newborns will be at a very high risk of hospital acquired infections. Present the objectives of the session.
- Discuss infection prevention and related practices.
- Use PPT 3.7 for this session. By showing different slides cover the following points:

- Discuss principles of IP, standard universal precautions and bio-medical waste management. There are 6 standard universal precautions-hand washing, Use of protective attire, processing of used items, proper handling and disposal of sharps, maintaining a clean environment, biomedical waste disposal
- Discuss decontamination and disinfection
- Discuss processing of instruments, high level disinfection (HLD) and sterilization, and storage of processed instruments
- Discuss the types of waste and the colour coded bin for its disposal.
- Make the group perform the activity of segregation of waste items written on the VIPP cards by picking one card, mentioning the item written on it and in which waste bin will it go and why. The whole group should come to an agreement on the segregation of waste items. Clarify doubts if any. Conclude the activity by asking the group, what is the practice of waste disposal in their clinic and what change will they be able to bring in the labour room after the training.
- Give the handout of steps of hand washing to each learner. Ask the group to demonstrate steps of hand washing as it was demonstrated and practiced during the session on skills practice. Ensure that each one is doing the steps correctly. Demonstrate how to wear and remove gloves in both hands and give a pair to each learner to practice and demonstrate it. Facilitate the group on how to wear and remove gloves.
- Demonstrate preparation of 0.5% chlorine solution in one litre of water after wearing the protective attire required for this activity. Specify that the quantity of bleaching powder and water will increase in the same proportion as per the requirement of the labour room and other examination/procedure areas of their health facility. Highlight how to measure the bleaching powder and make a paste of it. Explain that there will be some residue or precipitate when the paste is mixed with the water and it is acceptable as calcium salt in the bleaching powder is insoluble.
- Demonstrate purpose and use of needle burner and hub cutter to make the needle and syringe unusable.
- Discuss the protocols for cleaning labour rooms and its equipment before and after each use, show the Gol's video to explain the technique on how to manage spillage of blood and body fluids on the floor and surfaces.

Key messages

Summarize by stating the key points covered during the session.

- Consider all objects coming in contact with client and every person as potentially infectious
- If an object is disposable, discard as waste, if reusable-prevent infection by decontamination, cleaning, disinfecting or sterilizing and storing appropriately
- The first step in processing of used instruments is decontamination i.e. immersing instruments in 0.5% chlorine solution for 10 minutes specifically to kill HIV and Hepatitis B and C viruses and protecting handling staff from infections
- In BMW, the first step is segregation of waste at the source of generation in different color coded bins.

Presentation 3.7



Infection Prevention

Learning Objectives

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

- Describe Sources of infection
- Tell the importance of infection prevention
- Describe principles of infection prevention
- Describe standard precautions
- Demonstrate steps of hand washing and preparation of 0.5% chlorine solution
- Explain proper handling of contaminated waste
- Describe proper disposal of biomedical waste



2

Sources of Infection

What are the common sources of infection?

- Environment: Blood, body fluids, secretions, excretions, placenta, contaminated sharps and other equipments
- Other clients and attendants
- Health care delivery personnel
- People in the community



3

Principles of Infection Prevention

- All objects in contact with the client: Potentially contaminated
- Every person: Potentially infectious
- If an object is disposable: Discard as waste.
- If reusable: Prevent infection by decontamination cleaning, disinfecting or sterilizing



4

Standard Precautions

1. Hand washing
2. Use of protective attire (PPE)
3. Processing of used items
4. Proper handling and disposal of sharps
5. Maintaining a clean environment
6. Biomedical waste disposal



5

Steps of Hand Washing

HAND WASHING – A SIMPLE AND EFFECTIVE METHOD FOR PREVENTION OF NOSOCOMIAL SEPSIS



STEP 1
Palm and fingers



STEP 2
Back of hands



STEP 3
Finger & knuckles



STEP 4
Thumbs



STEP 5
Finger tips



STEP 6
Wrists and forearms

Wash hands for 2 complete minutes before entering NICU & before any procedure

Wash hands for at least 20 seconds before and after touching baby

Golden rules

- Remove all jewelry and watch before hand washing. Roll the shirt to above elbow level.
- Wet and apply soap on hands and forearm up to elbow level.
- A normal, non-medicated soap is good enough.
- Dry hands either in air or by single-use sterile towel or sterile paper. Multiple-use cloth towels are not recommended.
- Alcohol-based hand rub solutions may be used as an alternative. The 5 ml solution should be spread on all parts of the hands; follow above steps; rub hands to dry.



Division of Neonatology, Department of Pediatrics, All India Institute of Medical Sciences

6

2. Standard Precautions: Protective Attire

- Gloves
- Masks
- Eye-covers
- Gowns
- Caps
- Footwear



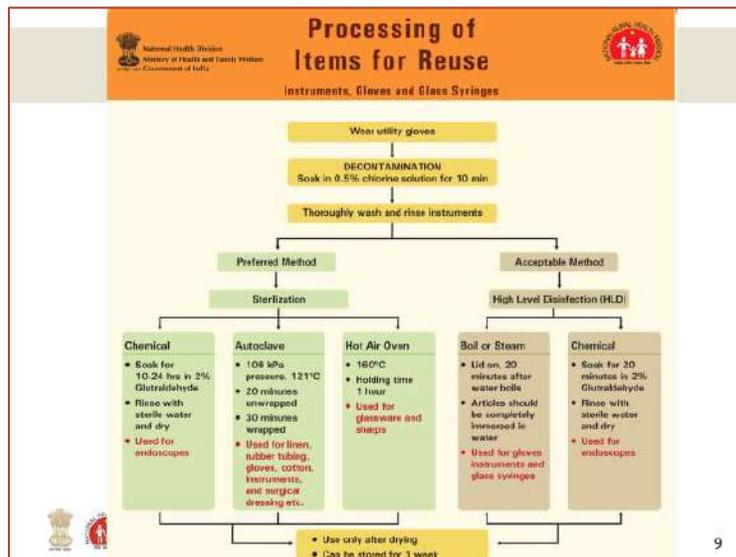
7

3. Standard Precautions: Processing of Used Items

- A. Decontamination
- B. Cleaning
- C. Sterilization or high level disinfection (HLD)
- D. Storage



8



9



4. Standard Precautions: Proper Handling and Disposal of sharps

Needles and syringes

- Use disposable needle and syringe **ONLY ONCE**.
- Always wear utility gloves while handling sharps
- Do not disassemble the needle and syringe after use.
- Do not recap, bend or break needles before disposal.
- Make needles unusable after single use by burning them in a needle destroyer
- Never burn syringes

11

4. Standard Precautions: Proper Handling and Disposal of sharps

Needles and Syringes

- Dispose off needles and syringes in a puncture-proof container such as metal box, cardboard box or an empty plastic box.
- Finally dispose as follows:
 - (i) Dispose the needles and broken vials in pit / tank,
 - (ii) Send the syringes and unbroken vials for recycling or landfill

12

5. Standard Precautions: Maintaining Clean Environment

Type of cleaning solution	Uses
Plain detergent and water	To remove dirt & organic material such as grease, oil
Disinfectant 0.5 % chlorine solution	To clean up spills of blood or other body fluids
Disinfectant cleaning solution	For cleaning areas – operation theatres, procedure rooms , latrines



13

6. Standard Precautions: Biomedical Waste Disposal

It is the waste that is generated during diagnosis, treatment or immunization of human beings

Purpose of waste disposal

- Minimize/Prevent the spread of infection to hospital personnel who handle waste
- Prevent the spread of infection to the local community



14

6. Standard Precautions: Biomedical Waste Disposal

Steps of waste disposal

- A. Segregation
- B. Collection and Storage
- C. Transportation
- D. Treatment and disposal



15

Biomedical Waste Disposal: A. Segregation

Colour coded bins



Yellow Bag

Human tissue
Placenta and PoCs
Waste swabs /
bandage
Other items
(surgical waste)
contaminated
with blood



Black Bag

Kitchen waste
Paper bags
Waste paper /
thermocool
Disposable
glasses & plates
Left over food



Red Bag

Disinfected catheters
I.V. bottles and tubes
Disinfected plastic gloves
Other plastic material

Puncture Proof Container



All Needles and Sharps
I.V. Cannulas
Broken Ampoules
All Blades



16

Biomedical Waste Disposal: B. Collection and Storage



Wrong



Correct



17

Biomedical Waste Disposal: C. Transportation



Wrong



Correct



18

Biomedical Waste Disposal: D. Treatment and Disposal

Do's

- Disinfect and destroy the waste before its final disposal.
- Remember
- Biological waste to be buried deep at the sub- Centre
- Syringes to be cut with hub cutters and chemically disinfected at source of generation before final disposal into sharps pit located at the PHC



19

Key Messages

- Consider all objects coming in contact with client and every person as potentially infectious
- If an object is disposable, discard as waste, if reusable- prevent infection by decontamination, cleaning, disinfecting or sterilizing and storing appropriately
- The first step in processing of used instruments is decontamination i.e. immersing instruments in 0.5% chlorine solution for 10 minutes specifically to kill HIV and Hepatitis B and C viruses and protecting handling staff from infections
- In BMW, the first step is segregation of waste at the source of generation in different colour coded bins.



20

Session 3.8

Organization of Labour Room for Improved Quality

Duration: 30 minutes

Learning objectives

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

- Describe the importance of organizing labour room
- Explain the layout to organize LR in a systematic way with all essential equipment and supplies in a functional state

Resources/materials needed

- LCD projector, screen, laptop, extension board, power source, external speakers
- Presentation based on photographs of labour rooms (Presentation 3.8.1)
- Gol's video on organization of LR
- Sheets with photographs of important items of labor rooms (cut individual items pictures from the sheets for group activity prior to the training)
- Chart paper for group activity
- Sheets with details of dimensions and layout of labour rooms
- Handout on good organization of labour room using the layouts of group works

Instructions

- Introduce the session and present the objectives of the session.
- Brainstorm on importance of organizing LR.
- Using presentation 3.8.1 show the slides with pictures to the learners. Ask participants to point out the issues with organization of labor room in the pictures. Upon clicking, the issues will appear as red-color marked items. Discuss the ways to fix these issues.
- Last four slides of presentation 3.8.1 show pictures of well organized labor rooms. Ask participants to compare these with the previous pictures
- Conduct the group activity using the following guidelines:
 - Divide learners to two groups by randomly allocating participants into each group
 - Draw the outline of labor rooms on the chart papers as per the sheet with the details of dimensions and layout of labour rooms
 - Hand over one chart with the outline and one set of pictures of labor room items to each group
 - Ask the groups to stick the pictures on the chart paper in order to best organize the labor room with the given dimension and the given layout. While setting up the labour room, they should keep in mind the proper direction and spacing of items such as the radiant

warmer, labour tables, treys, and hand washing station, etc. to ensure that essential actions can be performed appropriately.

- Allot 15 minutes to each group for completing the activities. Inform the groups that they should select one person from among themselves to present the organization and the rationale behind that organization.
- After completion of the group activity, ask the group representatives to present the organization. Ask questions on their logic on the position and direction of various items. Let the other group ask questions as well.
- At the end of group work, discuss the handouts that show a good organization of items on the two layouts given to the groups. Compare this with the group work presentations and discuss differences and any improvements to what the groups presented.
- Show Gol video on organization of LR and then discuss on the benefits of organizing it and what will happen if things are not in order or not available in the labour room when required. Ask the group to give examples of non-availability of items and their implications.

Key message

Summarize the session by stressing that LR should be appropriately organized for providing safe delivery services and to reduce chaos and delay in providing appropriate management for complications to save the lives of women and newborns.

Presentation 3.8.1



Organizing Labour Room

1

Objectives

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

- Describe the importance of organizing labour room for improved quality
- Explain the layout to organize LR in a systematic way with all essential equipment and supplies in a functional state

2



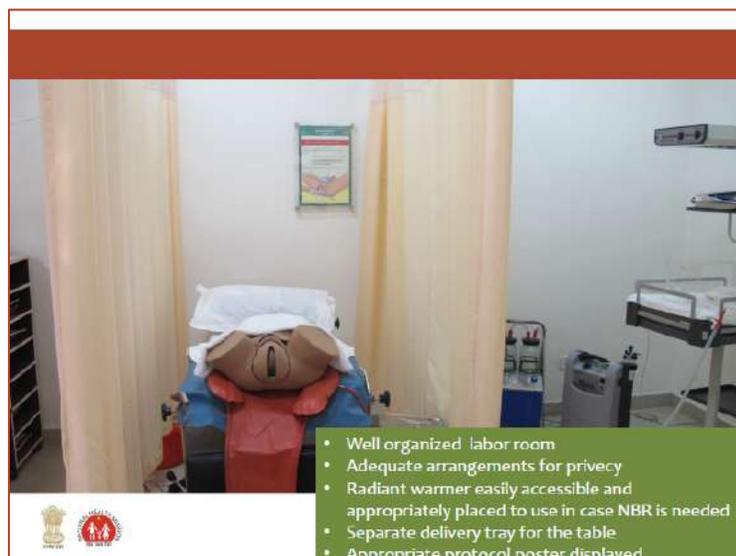




- Unnecessary space by chair
- Position of the radiant warmer not suitable for newborn resuscitation



- Well organized newborn corner
- Radiant warmer position suitable for newborn resuscitation (open on 3 sides)
- Mechanical suction seen



- Well organized labor room
- Adequate arrangements for privacy
- Radiant warmer easily accessible and appropriately placed to use in case NBR is needed
- Separate delivery tray for the table
- Appropriate protocol poster displayed





Session 3.9

Recording and Reporting

Duration: 30 minutes

Learning objectives

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

- Discuss the importance of appropriate data recording and timely reporting
- Describe the components of labour room register and their recording
- Describe the monthly reporting format and its' recording

Resources/materials needed

- LR register format and monthly reporting format

Instructions

- Introduce the session by asking that what will happen if we do a lot of work but do not record it and what are the benefits of documenting the services provided at your facility? Let the group respond. Tell them that today we will discuss about the different recording and reporting formats. Present the objectives of the session.
- Discuss the importance of appropriate data recording and timely reporting.
- Go through the labour room register template, answer queries of learners on items to be recorded.
- Go through the reporting formats required to be filled by the providers for maternity services and answer queries if any.

Key message

Summarize the session by stating that:

- Recording and periodic reporting of data is very important
- It serves as a ready reckoner for the service provider, facility head and manager to know the volume and quality of services being provided at the facility
- It helps the higher level managers at the district and state to have a clear picture of the services being provided, the proportion of complications prevented or treated with good evidence based timely services and lives saved
- Help plan for resources according to the actual need.

Session 3.10

Post-training Knowledge Assessment and OSCE, Review of Training, Learners' Feedback of the Training

Duration: 45 minutes

Session objectives

By the end of the session, the learners will be able to:

- Respond to post-training knowledge assessment questionnaire and perform post-training skills assessment
- Provide feedback on the usefulness of the training and suggestions for future improvement

Resources/Materials needed

- Copies of the post-training knowledge assessment questionnaire one for each learner
- Answer key of knowledge assessment
- Copies of post-training OSCE sheet one for each learner
- Answer key of OSCE sheet for facilitators
- Setting of skill stations before OSCE as per the list of materials for skill stations
- Office bell
- Knowledge assessment and OSCE matrix compilation sheet
- Copies of learners' feedback form, one for each learner

Pre-preparation by trainers

- Set up two skills stations-one for conducting AMTSL and another for NBR
- Familiarize with the content of the session and the activity

Instructions

- Tell the learners that now we have completed all the technical update and skills to be standardized during the training. Let us see what have we learned by responding to the post-training knowledge assessment questionnaire and perform the OSCE skills. This activity will be conducted similar to the activity done during the pre-training assessments on day one.
- Distribute the post-test knowledge assessment questionnaire and post-training OSCE. Ask them to circle the 'post-training' on the title of the assessment sheets and write the current date and their serial number as provided on the first day of the training. If the learners have forgotten their serial number, tell them from the registration sheet.
- Conduct the OSCE by randomly allotting learners at one of the two skill stations (AMTSL and NBR).
- One facilitator should continue assessing the learners for AMTSL and the second facilitator needs to do the same for NBR.
- At each station, assess without prompting and mark the responses and score the skill.

- Ask the remaining learners to complete the knowledge assessment questionnaire and remaining questions on OSCE sheet for station 3 and 4 by sitting at their place.
- After knowledge and skill assessment (OSCE), co-facilitators will check the assessment sheets and compile the results in compilation sheet or results matrix.
- Score the OSCE and knowledge assessment marks in the respective matrix sheet as per the serial number of the learners; highlight pass score (80%). Also highlight the maximum and minimum scores achieved by green and red highlighter respectively.
- Tell the learners who have completed their knowledge and skills assessments to complete the learners' feedback as per their experience of the training. Explain the group how to fill this form. Collect all forms and review the feedback provided by the learners individually. If they have provided some suggestions or issue which is not clear, discuss with them for clarity. Thank the group for their feedback which along with the post-training assessment scores and increase in learning is also the evaluation of the success and quality of training.
- Share the correct answers and results (average score in knowledge and OSCE assessments) with the learners so that they leave the training with their doubts clarified.
- Place the results at a common place for everyone to see.

Session 3.11

Next Steps, Certificate Distribution and Closing

Duration: 30 minutes

Instructions

- Thank the learners for their active participation during the training.
- Tell the group, that as next steps to the training, they need to inform their facility head and manager regarding the training, share the technical material provided for their information. and discuss the key points learned during the training with reference to the changed practices or behaviours currently being followed at the facility. With their support, try and apply as many good practices they have learned during the training as feasible during their routine work.
- Distribute the certificate of participation and formally close the training. Closing and certificate distribution might be done by an invited guest such as the head of the facility where training is happening or representative from the district health administration or the trainers themselves.

