सत्यमेव जयते

CHILD HEALTH DIVISION

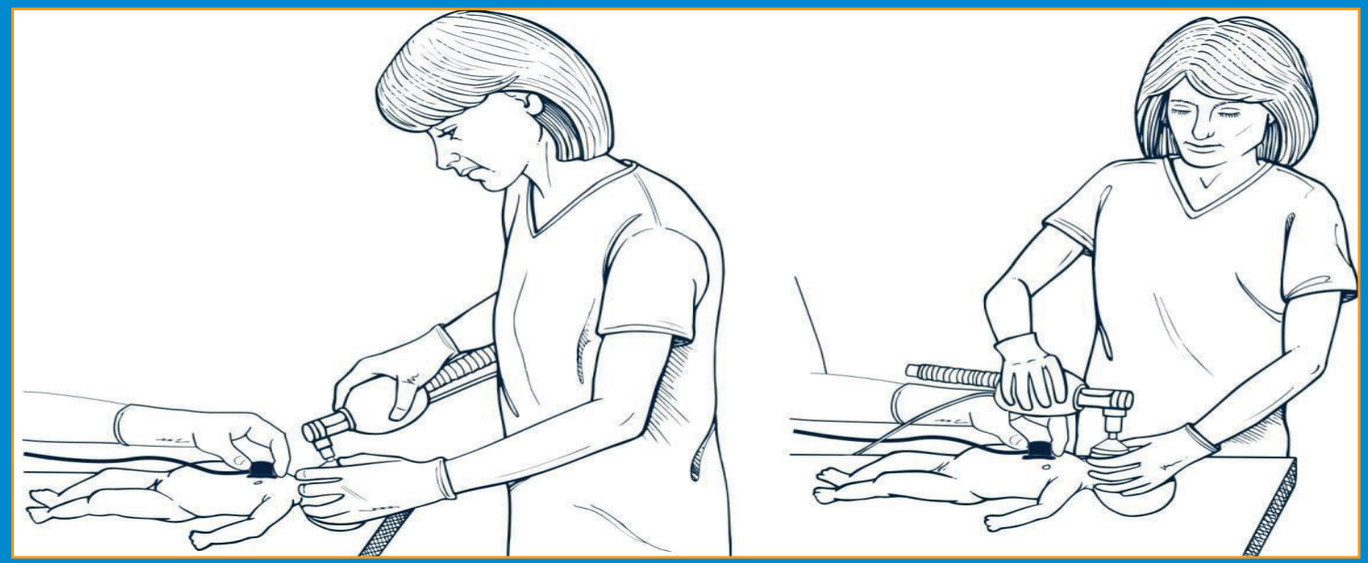
Ministry of Health and Family Welfare

Government of India

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन

NAVJAAT SHISHU SURAKSHA KARYAKRAM 2020

FLIP CHART



RESUSCITATION AND ESSENTIAL NEWBORN CARE

INTRODUCTION TO THE REVISED NSSK PACKAGE

Time 10 Minutes

Introduce yourself and ask the participants to introduce themselves and share information about their role & level of health facility.

After the introduction, **provide an overview** of the two days of the training programme.

EXPLAIN EACH BRIEFLY

The facilitator should elaborate regarding teaching methods used, the skills to be practiced 'hands on' and the key aspects that will be covered in this training.

TRAINING METHODS

- Discussion using flip chart & wall chart
- Skills practice on mannequin, equipment
- Role plays
- No reading

HANDS ON PRACTICE

It is mandatory for each participant to practice

- Receiving baby in dry warm linen
- Cord clamping
- Routine care
- Initial steps
- Resuscitation using bag and mask
- Monitoring
- Technique of Kangaroo Mother Care
- Technique of breastfeeding

KEY ASPECTS COVERED

1. Preparation for receiving a baby in the LR/OT
2. Routine care
3. Resuscitation with bag & mask
4. Observational care for babies who received initial steps/Bag and mask ventilation for less than one minute
5. When to seek help
6. Referral

सत्यमेव जयते

CHILD HEALTH DIVISION

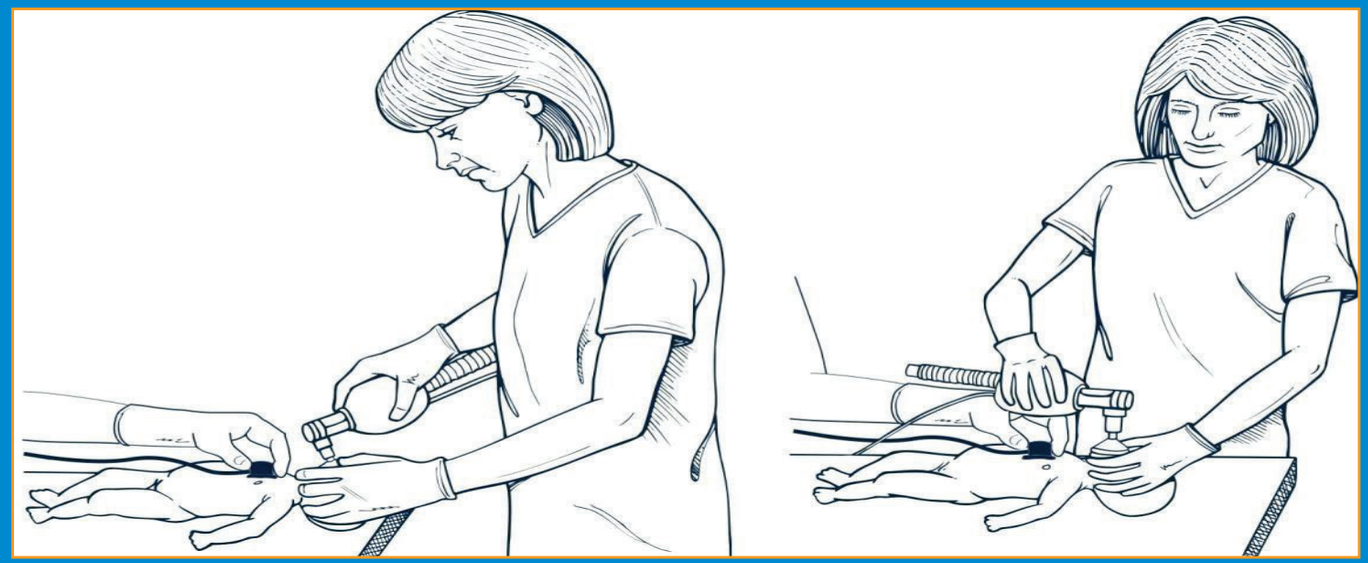
Ministry of Health and Family Welfare

Government of India

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन

NAVJAAT SHISHU SURAKSHA KARYAKRAM 2020

FLIP CHART



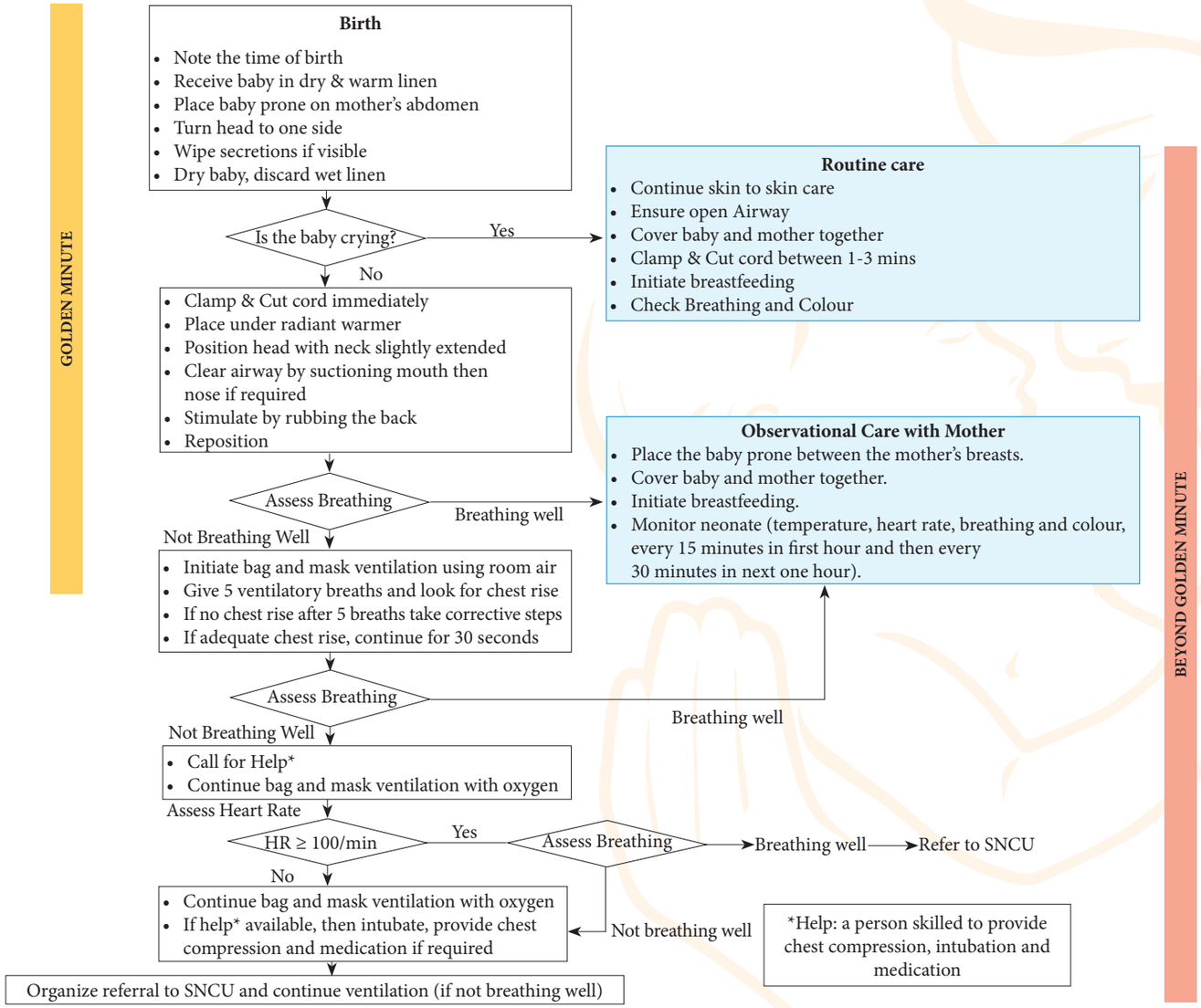
RESUSCITATION AND ESSENTIAL NEWBORN CARE

OBJECTIVES FOR DAY 1

The facilitator on Day 1 should make the participants understand the revised algorithm of NSSK. Show participants the algorithm on the wall chart and inform them that the same will be referred to many times during this training. Each participant should practice and learn how to effectively ventilate using bag and mask:

1. **Ensure you have the resuscitation tray, mannequin and wall chart ready**
2. **Show front of chart and ask questions written on back of flip chart in bold**
3. **Always summarize with key messages at the end of the page**

ALGORITHM FOR NEONATAL RESUSCITATION



SKILLED ATTENDANT AT BIRTH MAKES A DIFFERENCE

Ask the participants	Discuss
a) Baby 1 & 2 have just been delivered. Enumerate the differences that you observe between baby 1 & baby 2 Baby 1 appears to be crying lustily and is pink in colour Baby 2 appears not crying, looks blue and limp/flaccid You may narrate case studies to describe the situations in which the outcome is a vigorously crying baby or a baby who died after birth **b) What do you think can make a difference?** Presence of a skilled attendant who follows the right steps, performs these steps correctly and within the critical time period can lead to establishment of respiration in an asphyxiated baby	**How often do you attend births at your health facility?** (Ask each participant to respond) Ask them to **share their experiences** from their health facility with respect to care of babies at time of birth to understand the preparedness and ground realities

KEY MESSAGES:

1. Most babies cry at birth, but 1 in 10 babies needs help to breathe. So, it is important to anticipate problems and be prepared to perform resuscitation in every delivery.
2. 90% of the babies will not require any support and will benefit from routine care.
3. Presence of a skilled provider can make a difference to a baby's survival.
4. During this training you will practise the skills required to effectively resuscitate a neonate and provide care after birth.

ENUMERATE THE DIFFERENCES IN TWO BABIES?

Baby 1

Baby 2

PREPARATION OF THE DELIVERY ROOM

Time for discussion: 10 minutes

Ask ***the participants to explain 'what do you see on the flip card'. Ask each participant to enumerate steps towards***

1. Maintaining delivery room temperature
2. Providing privacy to mothers in labour

Explain	Discuss
Switch off the fans to avoid direct draught of air	Ask participants to share their experiences from their health facility with respect to privacy during child birth Different participants will give different views on privacy
Close all the doors and windows and draw the curtains	
Switch on the radiant warmer 20 minutes before the delivery and place 2 baby sheets in the bassinet before delivery	
Temperature: A well lit room with temperature in the range of 26-28°C. Use heating/cooling devices depending on local conditions	
All the trays with the recommended contents as per MNH Tool kit namely Delivery tray, Baby tray and Medicine tray should be inspected in the labour room/OT prior to delivery	

KEY MESSAGES:

1. Ensure privacy and empathetic care to all the pregnant women who are in labour.
2. Keep the temperature of the delivery room between 26-28°C with the help of heating/cooling devices depending on the ambient temperature.

PREPARATION OF THE DELIVERY ROOM: WHAT DO YOU SPECIFICALLY NOTE ABOUT PRIVACY AND ROOM TEMPERATURE?

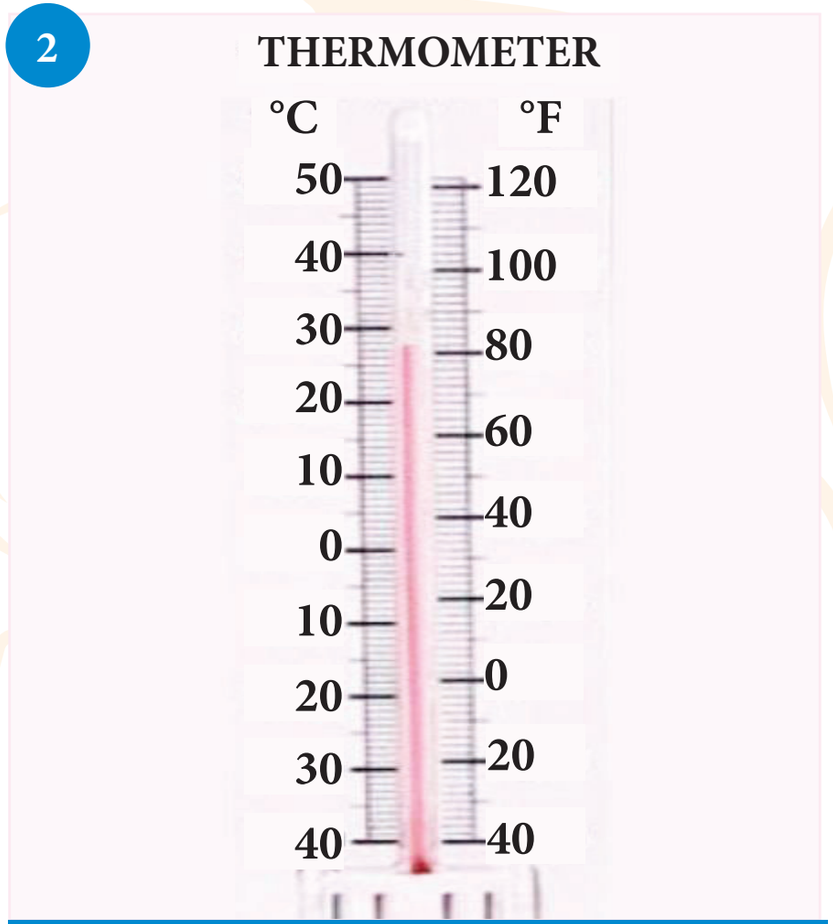
1

Switch off fans

3

Labour room with curtained cabins

2



Maintain room temperature between 26-28°c

PREPAREDNESS FOR BIRTH: EQUIPMENT

Time for discussion: 15 minutes

Ask ***the participants to enumerate the items shown in the flip chart***

Discuss & Demonstrate	1. Baby tray with two clean, warm towels/sheets, mucous extractor (Dee Lee's), gloves, cord clamp/tie, cotton swabs, needle (26 gauge) and syringe(1ml), Inj. Vitamin K-1 2. Clean cord cutting equipment (Scissors/New blade) 3. Wall clock with seconds hand 4. Functional self- inflating bag (250 & 500 mL); Infant masks in two sizes: size '1' for normal weight baby and '0' for small baby 5. A functional radiant warmer (tell the participants that they will learn about it in greater detail at a later stage in the training) 6. Oxygen source 7. Stethoscope 8. Suction machine (Electrical/foot operated) (suction pressure 80-100 mmHg) and Suction catheters 10 F and 12 F 9. A folded piece of cloth to be used as shoulder roll during resuscitation (1/2 to 3/4th" thick)

KEY MESSAGES:

1. Ensure all essential equipment is in place and in working condition before every delivery.
2. Discard mucus extractor and suction catheter after single use and replace with a new one.
3. Disinfect bag and mask, stethoscope, radiant warmer and suction machine after use.

WHAT EQUIPMENT IS NEEDED FOR BIRTH PREPARATION?

INFECTION PREVENTION

Time for discussion: 10 minutes

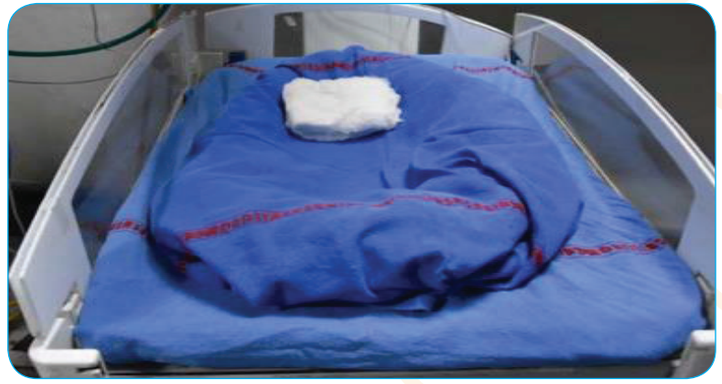
Ask the participants: *what steps do you take to prevent infection ?*

Discuss with the participants	Demonstrate
Cleans • Clean hands of the attendant conducting the delivery: by strictly following hand washing procedure. Wear sterile gloves for vaginal exams or when handling the baby • Clean perineum: feces should be wiped away and the perineum washed prior to the birth (mother can shower or bathe) • Clean surface: ensure that the table, McIntosh, sheet and mattress are clean, the delivery surface should be cleaned and then wiped with 0.5% solution of chlorine after each use. Use clean towels/sheets to dry the baby and then wrap the baby • Clean/sterile scissors; always use a sterile/autoclaved blade. For home delivery: a new blade or autoclaved scissors should be used • Clean cord tie: use of disposable cord clamp/autoclaved, clean thread for all babies • Clean cord care: do not apply anything on the cord, it should be kept clean and dry at all times	**Discuss how these cleans can be achieved at your own work place**
Basic requirements for hand washing include: • 24*7 clean running water supply • Soap, preferably in a soap dispenser • Elbow operated taps **Adherence to good housekeeping and asepsis routines:** • Cleaning the equipment, floor & walls as per guidelines, ensuring hand washing and use of personal protective gear	**Hand washing steps**
Clean equipment: • Use disposables and disinfect reusables	

KEY MESSAGES:

1. Following 6 CLEANS is the most effective way of preventing infection.
2. Hand washing is critical even when you wear gloves.

INFECTION PREVENTION: WHAT CAN WE DO?



ACTIONS AT BIRTH

Time: 20 minutes

Introduce the flowchart for neonatal resuscitation (displayed prominently as a wall chart in the room for each group)

Ask: ***What steps should be followed?***

Picture	Actions	Explain	Demonstrate and Practice
1.	Note the exact time of birth	Important for records and start of first golden minute	**Demonstrate steps** a. Noting the time of birth b. Receiving a baby c. Placing the baby prone on mothers' abdomen d. Turning head to one side, wipe secretions if required e. Drying the baby, discarding wet linen f. Observing if the baby is breathing/crying g. Deciding care needed **Participants practice in pairs**
2.	Receive the baby in warm, dry, clean linen	A newborn is prone to hypothermia, receiving the baby in warm towel/linen prevents loss of heat	
	Place prone on mothers' abdomen (Skin to skin contact)	The best way to keep the newborn warm is by providing skin to skin contact on the mothers' abdomen	
3.	Turn head to one side, wipe secretions if required	Head of the baby should be turned to one side to maintain airway, wipe secretions if required	
	Dry the baby, discard wet linen	Dry baby from head to toe. Drying helps keep a baby warm. It also stimulates respiration	
	Observe: If the baby is breathing or crying?	Yes: Proceed for routine care No: Proceed for resuscitation	

KEY MESSAGES:

1. Note time of birth
2. Receive baby in clean, dry and warm linen
3. Place prone on mothers' abdomen
4. Turn head to one side, wipe secretions if required
5. Dry the baby, discard wet linen
6. Observe if the baby is breathing/crying

WHAT ACTIONS ARE TAKEN AT BIRTH?

Birth

- Note the exact time of birth
- Receive baby in warm, dry and clean linen
- Place the baby prone on mother's abdomen
- Turn head to one side, wipe secretions if required
- Dry the baby, discard wet linen
- Is the baby breathing/crying – YES/NO

Note time of birth

Place baby prone on mother's abdomen

Turn head to one side and dry the baby

ROUTINE CARE FOR BABIES WHO CRY AT BIRTH

Time: 30 minutes

Ask: ***What steps do you see in the picture?***

Discuss with the participants the standard protocol to be followed if baby cries at birth. Proceed for routine care.

Picture	Actions	Explain	Demonstrate
1.	Continue skin to skin care, ensure open airway, cover mother and baby together	Advantages: baby remains warm and facilitates the initiation of breastfeeding	Covering the baby and mother Demonstrate on mannequin: Cutting of the cord
2.	Clamp & cut cord between 1-3 minutes	Put cord clamps and cut within 1-3 minutes using a sterile blade/ scissors Delayed cord clamping shows significant benefits in improving hemoglobin levels in both term and preterm babies.	
3.	Initiate breastfeeding	Early initiation of breastfeeding helps in establishing as well as sustaining lactation. Some mothers may need help for early initiation of breastfeeding	
4.	Observe breathing and colour in the next column	Monitoring the baby's breathing and colour helps to detect apnoea/ gasping/respiratory distress/ cyanosis and initiate prompt resuscitation if needed.	

KEY MESSAGE:

Skin-to-skin contact helps to keep the baby warm, establishes breastfeeding and encourages mother- child bonding.

ROUTINE CARE
BABIES WHO CRY AT BIRTH REQUIRE ROUTINE CARE

Continue skin to skin care

Cut cord within 1-3 minutes

Initiate breastfeeding

Keep mother and baby covered and observe breathing and colour

BABY WHO DOES NOT CRY

Time: 30 minutes

Ask: ***What steps do you see being taken when a baby does not cry at birth?***

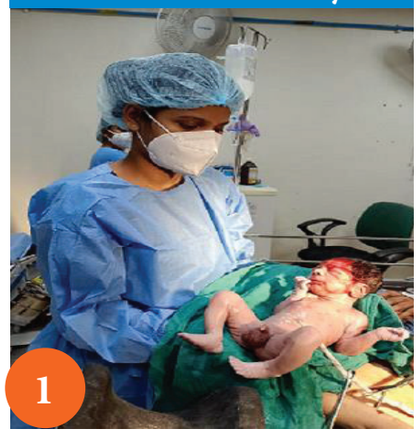
Picture	Actions	Explain	Demonstrate and Practice
1.	Clamp and cut cord immediately	The cord should be clamped and cut immediately to start effective resuscitation	
2.	Place baby under radiant warmer	The baby is placed under pre warmed radiant warmer	
3.	Position head with neck slightly extended	Place a shoulder roll – rolled cloth ½ to ¾ th inch under the shoulder. Positioning helps in aligning the airway in one plane for facilitating air entry	Show a shoulder roll and how to use it for positioning the baby
4.	Clear airway	Suctioning should be done only if the mouth or nose is full of secretions. Use 10 F catheter for clear liquor. Bigger size (12 F) suction catheter is needed to remove meconium. This is because meconium is particulate and its removal needs wide bore catheters. If using electrical machine then suction pressure should be kept at 80-100 mmHg Remember to always do suction of mouth first and then nose	Demonstrate how to use Dee Lee mucus extractor
5.	Stimulate by rubbing back	Stimulate by rubbing back 2-3 times Reiterate that no other method is to be followed for stimulating the baby	Demonstrate and practice stimulation
6.	Reposition	Check if the above actions have disturbed the position. Reposition and ensure that the neck is slightly extended	

KEY MESSAGES:

If the baby does not cry after birth, clamp and cut the cord immediately and perform the initial steps which includes stimulation by rubbing the back.

WHAT ACTIONS WILL YOU TAKE IF BABY DOES NOT CRY?

Clamp and cut the cord immediately



Place baby under radiant warmer

Position head by placing a shoulder roll beneath the shoulders

Clear airway if required (mouth before nose)

Stimulate by rubbing the back

Reposition

USING BAG & MASK

Time: 20 minutes

Ask: ***How should one use bag and mask?***

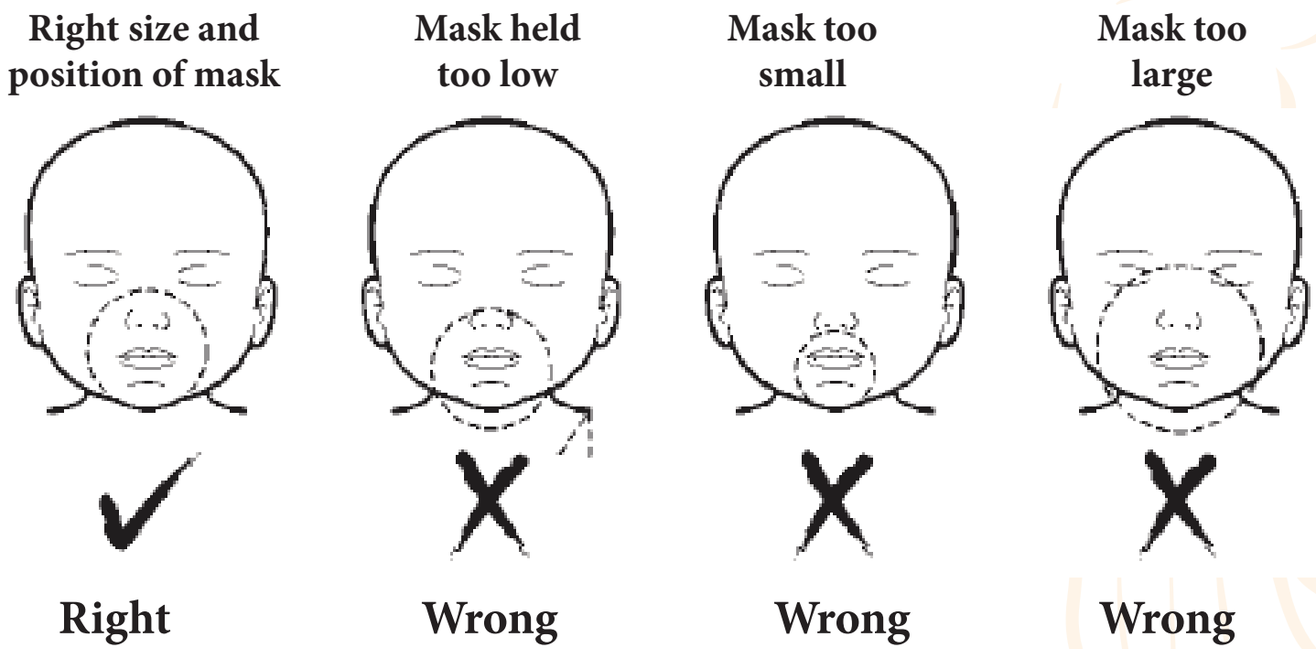
Actions	Explain	Demonstrate and Practice on mannequin
Check the equipment	Remember to use a clean and functional bag and mask Check functionality by occluding the patient outlet against the palm and squeezing the bag. Look for release of pop off valve and listen for hissing sound produced. Bag should re-inflate on release	Show how to check the functionality of bag & mask
Position the baby	Remind that before assessing breathing, the position of the airway is to be ensured	Positioning a baby for PPV
Select correct size mask	Position the mask on the face so that it covers the nose, mouth & chin: (Tip of the chin rests within the rim of the mask and it covers over the mouth till the base of the nose). Begin by cupping the chin in the mask and then covering the nose. Size zero mask is usually for smaller babies	Choosing the correct size of mask and how to position
How to make a firm seal between the mask and face	The mask is held on the face with the thumb and index finger encircling the rim of the mask in shape of letter "C" while the middle, ring and little fingers bring the chin forward to maintain a patent airway	Making a proper seal between the mask and face. This is a prerequisite for effective ventilation The two most important and difficult steps in ventilation are: • Positioning the head properly • Making a firm seal

KEY MESSAGES:

Appropriate size of face mask & correct position of the baby, are the two essential prerequisites for making a good seal.

HOW TO USE BAG & MASK?

Fitting Mask Over Face:



Check functionality

Place mask covering the chin, mouth and nose to make a tight seal

STEPS FOR POSITIVE PRESSURE VENTILATION (PPV)

Time: 20 minutes

Ask: ***This baby did not cry after drying and stimulation. What are the next steps ?***

Actions	Explain
Give 5 ventilatory breaths to initiate bag & mask ventilation using room air	Give 5 inflation breaths using enough pressure to adequately aerate the lungs in room air only. Look for chest rise. Remember the lungs of the foetus are filled with fluid, so the first few breaths will often require high pressure. If the chest does not rise with each inflation, then the lungs are not being aerated and the heart rate will not increase

KEY MESSAGES:

While providing five initial breaths, ensure firm seal and enough pressure to achieve chest rise.

WHAT ARE THE STEPS FOR POSITIVE PRESSURE VENTILATION ?

1

Initiate bag and mask ventilation using room air. Give 5 ventilatory breaths and look for chest rise

2

If no chest rise after 5 breaths take corrective steps

NO CHEST RISE AFTER 5 BREATHS: TAKE CORRECTIVE STEPS

Time: 20 minutes

Ask: ***What corrective steps are needed if there is no chest rise?***

Actions	Explain	Demonstrate and practice on mannequin
If no chest rise after 5 breaths, take corrective steps 1 and 2. Give five ventilatory breaths again and look for chest rise. If there is still no chest rise, take corrective steps 3 and 4	1. Adjust the **mask** to ensure airtight seal 2. **Reposition** the head to open the airway 3. **Suction** to remove excessive secretions 4. Increase **pressure** by squeezing the bag to get a visible chest rise	Demonstrate the corrective steps for checking adequate chest rise
If chest rises, then continue with bag and mask ventilation		Take the participants to the wall chart and explain the next steps

KEY MESSAGES

Four actions if no chest rise:

1) Adjust the mask to ensure airtight seal
2) Reposition the head to open the airway
3) Suction to remove excessive secretions
4) Increase pressure by squeezing the bag to get a visible chest rise

WHAT CORRECTIVE STEPS ARE TAKEN WHEN THERE IS NO CHEST RISE AFTER 5 BREATHS?

1

Adjust the mask to ensure airtight seal

2

Reposition the head to open the airway

3

Suction to remove excessive secretions

4

Increase Pressure by squeezing bag to get a visible chest rise

RATE OF POSITIVE PRESSURE VENTILATION (PPV)

Time: 20 minutes

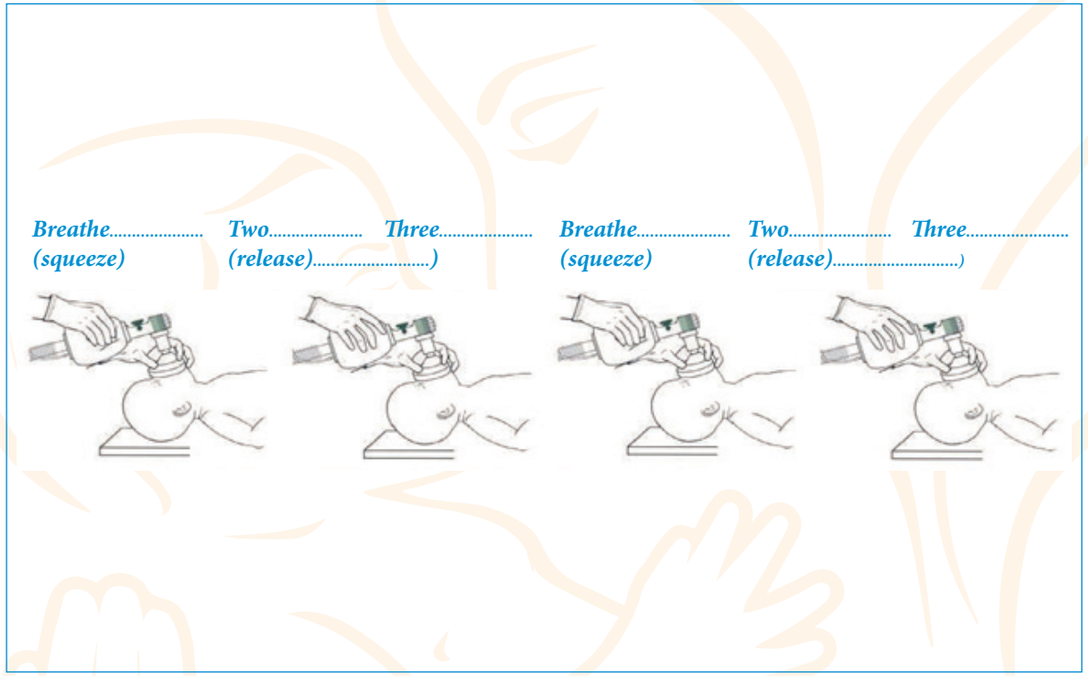
Ask: ***How is a ventilatory rate of 40-60/minute maintained?***

Actions	Explain	Demonstrate and practice
If chest rise is adequate, then continue ventilation for 30 seconds	To continue ventilation, about 40-60 breaths per minute must be delivered. One may call out loud as breathe- 2-3 , breathe- 2-3, to help oneself to deliver at the rate of one breath per second	Ventilate calling out loudly breathe- 2-3 and observing for adequate chest rise Let each participant practice ventilation on a mannequin
Reassess breathing: If breathing well, provide observational care with the mother. If not breathing well, call for help and continue bag and mask ventilation		Take the participants to the wall chart and explain the next steps

KEY MESSAGES

If there is adequate chest rise continue PPV for 30 seconds. Rate of ventilation should be 40-60 breaths per minute.

POSITIVE PRESSURE VENTILATION SHOULD BE GIVEN AT WHAT RATE?



A ventilatory rate of 40-60/minute should be maintained

ACTIONS REQUIRED IF BABY IS NOT BREATHING WELL AFTER VENTILATING FOR 30 SECONDS

Time: 20 minutes

Ask: ***What should be done if the baby does not start to breathe after 30 seconds of effective bag and mask ventilation?***

Assess	Actions	Demonstrate
Not breathing well	• Continue bag and mask ventilation • Call for help • Help is taken from a person at the facility who is skilled to provide chest compressions, intubation and medication	How to assess: Breathing Heart Rate Also show how to ventilate using oxygen by connecting to oxygen source and attaching reservoir
Assess Heart rate (HR)	• Continue bag and mask ventilation • Quickly count heart rate with a stethoscope for 6 seconds. Multiply with 10 to get the HR per minute • If HR is less than 100/minute and baby is not breathing well then continue bag and mask ventilation with an oxygen source(5-10 L /minute) attached to the oxygen inlet of the self-inflating bag • If help is available, then provide chest compression, intubation and medication as required	

KEY MESSAGE

Continue bag and mask ventilation and attach the oxygen source if the heart rate is below 100/minute.

Stop resuscitation if there are no signs of life (no breathing, no heart sounds and no activity) after 10 minutes of effective ventilation.

WHAT ACTIONS ARE REQUIRED IF BABY IS NOT BREATHING WELL EVEN AFTER VENTILATING FOR 30 SECONDS?

- Continue bag and mask ventilation with oxygen

Assess heart rate and attach oxygen to bag if less than 100 per minute

Continue bag and mask ventilation

- If help available, then provide chest compressions, intubation and medication as required

OBSERVATIONAL CARE WITH MOTHER

Time: 30 minutes

Ask: ***What care is needed once baby establishes breathing after bag and mask ventilation?***

Actions	Explain
Place the baby prone between the mother's breast Cover baby and mother together	Observational care is provided to the baby without separating from the mother. All babies who start breathing after initial steps and PPV for less than 1 minute are shifted for observational care with mother and kept in skin to skin contact and monitored
Initiate breastfeeding	Initiate breastfeeding within one hour of birth. The baby is most active after birth and hence breastfeeding should be initiated as soon as possible within one hour after birth. Baby may initiate breast crawl, open his/her mouth, move the head from side to side and also begin to salivate. These signs indicate that the baby is ready to breastfeed. Some mothers and babies may need support at this stage. Reiterate that early initiation is a must for sustaining exclusive breastfeeding
Monitor neonate	Monitor temperature, heart rate, breathing and colour, every 15 minutes in first hour and then every 30 minutes in next one hour. Assessing heart rate , breathing and temperature recording will be discussed later. In case the baby's lips and tongue look blue, refer the baby to a higher centre
It is important that the provider who is attending the newborn informs the parents of the baby's condition and progress. Maintain records of actions taken, if the baby did not cry immediately after birth	

KEY MESSAGES

Continue skin-to-skin contact after initial steps of resuscitation.

Monitor the baby's respiration, heart rate and colour, every 15 minutes in first hour and then every 30 minutes in next one hour. Breastfeed within one hour.

HOW TO PROVIDE OBSERVATIONAL CARE WHILE KEEPING BABY WITH MOTHER ?

Place the baby prone between the mother's breast. Cover baby and mother together.

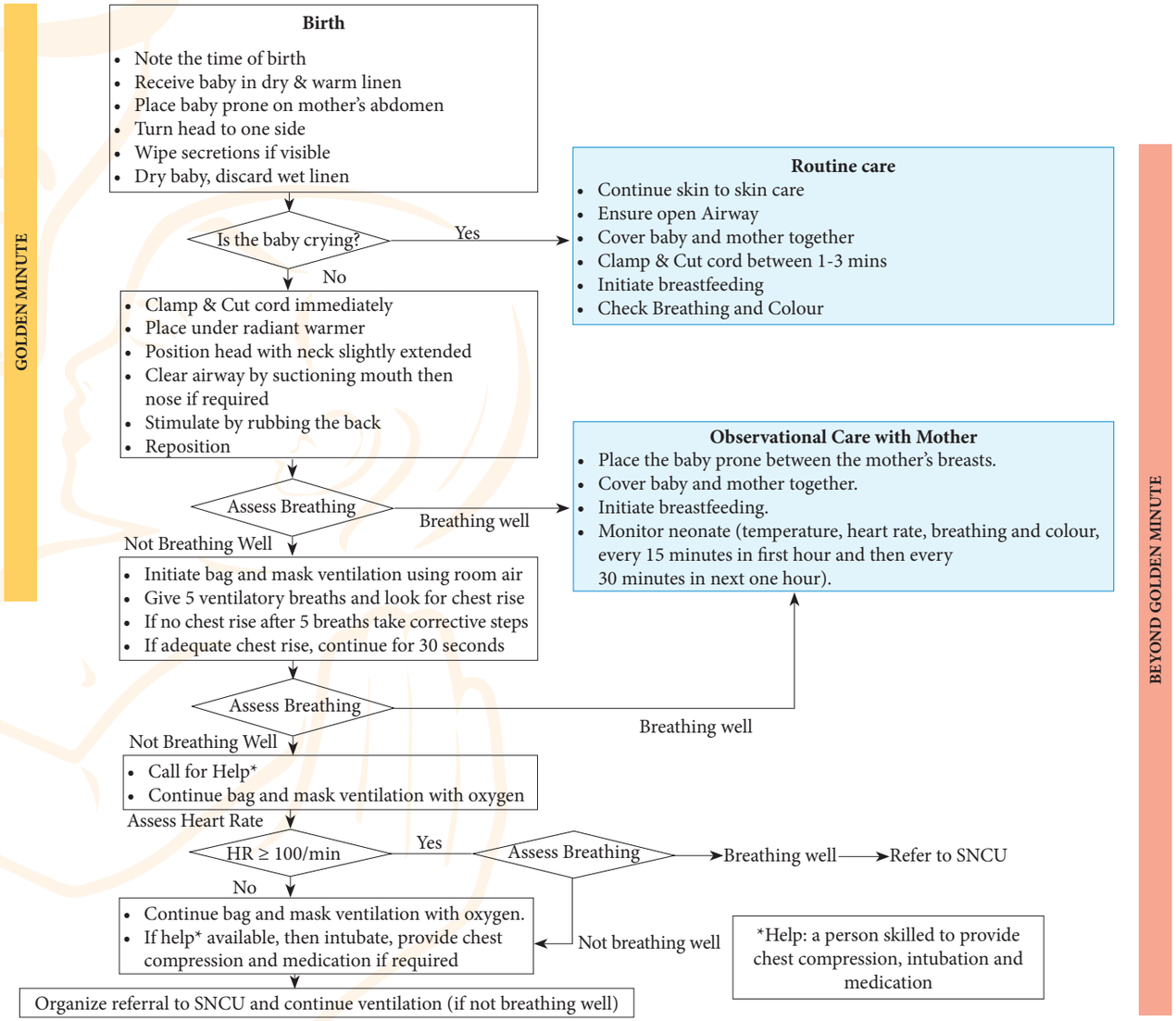
Initiate breastfeeding

Monitor every 15 minutes in first hour and then every 30 minutes in next one hour

DAY 2

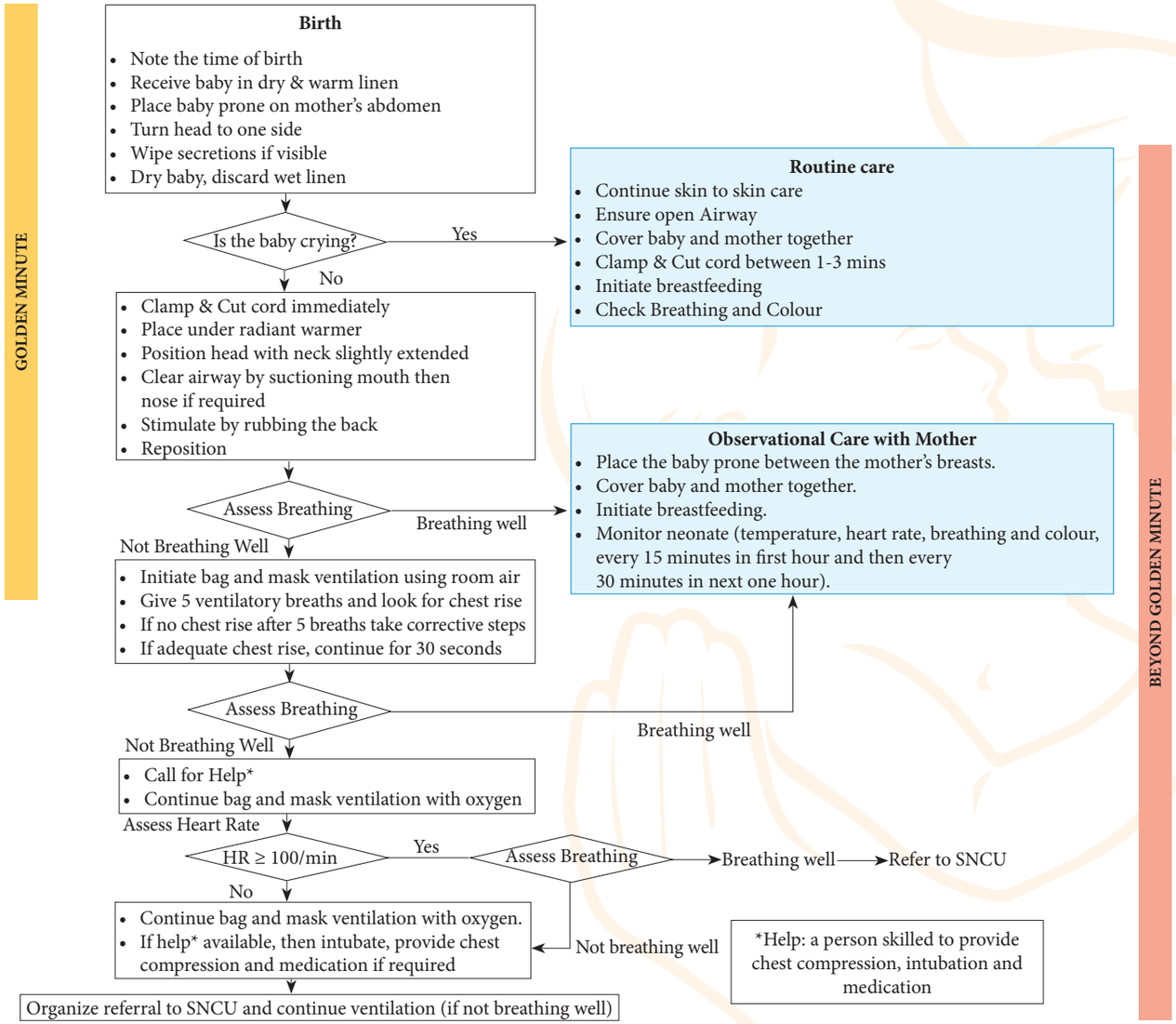
DAY 2

ALGORITHM FOR NEONATAL RESUSCITATION



At the start of Day 2, revisit the algorithm.

ALGORITHM FOR NEONATAL RESUSCITATION



CARE AFTER FIRST HOUR OF BIRTH

Time: 30 minutes

Ask: ***What care should be provided after initiation of breastfeeding?***

Actions	Explain	Demonstrate
Weigh the baby	Weigh the baby once the breastfeeding is initiated. Always look for zero error and then place the baby on the pan/scale and record the weight ensuring that baby does not get hypothermic in the process	Show how to check for zero error and how to record the weight correctly
Give Injection Vitamin K1 prophylaxis	Give 1mg of Injection Vitamin K1, IM to all babies weighing 1000 gram and above and 0.5mg to babies weighing less than 1000 gram. This should be documented on the discharge ticket and referral note. The injection is to be given after 1 hour of birth	Show the Vitamin K1 vial. Enquire whether they have used it earlier or not
Provide cord care	Put the clamp/clean thread, if clamp not available, between 3-5cms from baby's umbilicus and cut the cord. Keep the cord clean and dry. Leave the cord stump uncovered, do not bind or bandage stump. The cord stump should be about 5 cms long, a longer cord will come in contact with the genitalia and may be soiled and become infected. Observe for oozing from the cord stump	
Infection prevention after birth	• Wash hands after changing diaper/nappy and before feeding the baby. Use washed and clean linen • Exclusive breastfeeding	
Vaccination at birth	Details are given in the section below	

KEY MESSAGES

1. Weighing and Vitamin K administration should be done after one hour of birth and recorded.
2. Hand washing is the most cost effective measure for infection prevention.
3. Do not apply anything on the cord stump and keep it dry.

WHAT CARE SHOULD BE PROVIDED AFTER FIRST HOUR OF BIRTH?

Weigh the baby

Inj. Vitamin K

Cord Care

4. Infection prevention

a. Hand Washing


b. Breastfeeding

MONITORING BREATHING AND TEMPERATURE IN A NEWBORN

Time: 30 minutes

Ask: ***How is temperature and breathing monitored?***

Actions	Explain	Demonstrate and practice
Breathing	Babies breathe faster as their lungs are small and hence for adequate exchange of gases they need to respire at a higher rate Normal respiratory rate in a newborn is 40-60 breaths/min. Look for abnormalities in breathing like: a. Fast breathing >60 breaths/min. b. No breathing (apnoea) or gasping c. Breathing difficulty – severe chest in drawing Do's while counting **Respiratory rate:** Breaths must be counted for one minute to decide if the breathing is fast. The baby must be quiet and calm when you look at his breathing. Use the seconds hand or a digital watch while counting the movement of the infant's chest/abdomen Any compromise of the baby's airway/lung capacity because of improper position, blockage by secretions, meconium and/or infection may lead to increase in respiratory rate and chest in drawing	Participants practice counting respiratory rate assisted by a facilitator on a mannequin
Temperature	Baby's temperature can be assessed with reasonable precision by human touch (back of the hand). The warm and pink feet of the baby indicate that the baby is in thermal comfort, but when feet are cold and abdomen is warm, it indicates that the baby is in cold stress. In hypothermia, both feet and abdomen are cold to touch. All babies must have their temperature measured using a digital thermometer and it must be recorded.	Demonstrate touch method of temperature assessment and use of a digital thermometer

KEY MESSAGES

1. A baby breathing at the rate of 40 - 60 breaths per minute indicates that the baby's breathing is normal
2. The warm and pink feet of the baby on tactile assessment, indicate that the baby is in thermal comfort. Measure temperature using a digital thermometer.

HOW TO MONITOR BREATHING AND TEMPERATURE IN A NEWBORN ?

Monitor breathing (Count respiratory rate)

Monitor temperature (Tactile assessment- Abdomen)

Monitor temperature (Tactile assessment- Periphery)

Recording Temperature with a digital thermometer

BREASTFEEDING

Time: 30 minutes

Ask: ***How do you assess if breastfeeding has been established?***

	Positioning (Four steps of positioning)	Attachment (Four steps of attachment)	Frequency of feeds	Discuss common problems and their management
Discuss breastfeeding	1. Baby's body is well supported. 2. The head, neck and the body of the baby are kept in the same plane 3. Entire body of the baby faces the mother 4. Baby's abdomen touches mother's abdomen	1. Baby's mouth is wide open 2. Lower lip is turned outwards 3. Baby's chin touches mother's breast 4. Majority of areola is inside the baby's mouth	Mother should feed her baby at least 8-10 times during the day and night Mother can even feed in lying down position	**Sore nipples**: Ensure proper attachment and application of hind milk **Breast engorgement:** Warm fomentation, expression, ensure proper attachment **Breast Abscess** is painful swelling and redness of breast. Mother may have fever. She needs to be referred for further management after giving a dose of paracetamol
Demonstrate	Show the video and demonstrate positioning on mannequin			

KEY MESSAGES

1. Correct position and attachment is important for establishing breastfeeding.
2. Mother should continue to feed even during night.
3. Provide support to the mother for common breastfeeding problems.

WHAT ARE THE STEPS FOR EFFECTIVE BREASTFEEDING?

KANGAROO MOTHER CARE (KMC)

Time: 30 minutes

Ask: ***What is Kangaroo Mother care (KMC)? How is it provided & what are its benefits? Discuss***

Which babies should be provided KMC: All newborns with birth weight less than 2000 gm should be provided KMC. For newborns upto 1800 gm or more and in stable condition, KMC can be initiated as early as possible. For babies weighing less than 1800 gm, KMC should be started as soon as they are clinically stable.

When to stop KMC: When the weight is around 2,500 gm and the infant starts wriggling to show discomfort or pulls out and cries, it is time to wean the infant from KMC.

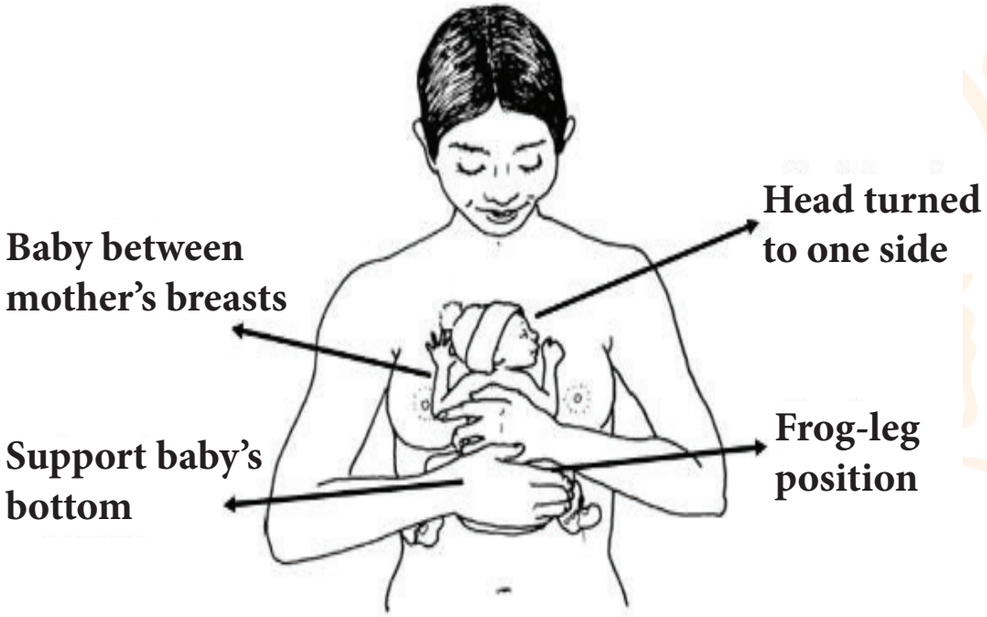
Explain		Demonstrate
Benefits of KMC :	**Additional benefits of KMC:**	
• Temperature maintenance with a reduced risk of hypothermia • Increased breastfeeding rates • Less morbidity such as apnoea and infections • Better weight gain • Early discharge from the health facility • Less stress (for both baby and mother) • Better mother infant bonding	KMC satisfies all five senses of the infant. The infant feels the mother's warmth through skin-to-skin contact (touch), listens to her voice and heartbeat (hearing), sucks breast milk (taste) has eye contact with her (vision) and smells her odour (smell) KMC has been found to be effective in improving exclusive breastfeeding rates, weight gain, fostering greater maternal and family involvement and above all, it is free of cost	1. Discuss clothing, position and duration 2. Demonstrate KMC on mother with her LBW baby Conduct a role play on counselling for KMC: Advice a mother regarding KMC for a baby weighing 1,900 gm who cried soon after birth and is taking feeds well

KEY MESSAGES

Early, continuous and prolonged skin-to-skin contact between the mother and baby along with exclusive breastfeeding are the components of KMC. The baby is placed on mother's chest between the breasts. Begin KMC as soon as possible in all low birth weight babies.

HOW DO YOU PROVIDE KANGAROO MOTHER CARE

Mother providing KMC



KMC Position

Clothes for Baby

Cap, Jhabala, Diaper and Socks

IMMUNIZATION

Time: 20 minutes

Ask: ***Enumerate the vaccines to be given at birth***

Ans: ***(BCG, OPV & Hepatitis B)***

Discuss ***the route of administration of the vaccines and demonstrate site of administration on a mannequin: Intramuscular injection, and Intradermal injection.***

Vaccine	Route	Site	Dose/Technique	Precaution	Reaction	Comments
BCG	Intradermal	Left upper arm	0.05 ml with insulin syringe. The vaccine is injected in a dose of 0.05 ml. A small bleb is formed on injecting the vaccine intra dermally	This vaccine should be used within 4 hours of opening the vial and adding the provided diluent and should be protected from sunlight	Takes place after 3 weeks in the form of redness and nodule formation. Sometimes this nodule may rupture and some liquid may come out. Very rarely an abscess may form for which the baby may need referral	Ensure all vaccines are administered before discharge, however if not done before discharge, they should be administered at the first available opportunity (Hepatitis B within 24 hours, OPV within 14 days and BCG within the first year)
OPV	Oral		Two drops	Check Vaccine Vial Monitor (VVM), do not use if the VVM is in stages 3 & 4	None	
Hepatitis B	Intramuscularly	Anterolateral aspect of the thigh	0.5 ml Use a 26 gauge needle with one ml syringe		None	

KEY MESSAGES

1. Give BCG, OPV, Hepatitis B vaccines within 24 hours or ensure they are given prior to discharge.
2. Record the vaccinations given at time of birth in the discharge card and in the MCP card.
3. Explain to parents the information in the MCP card.
4. Do not use vaccine with VVM in the stages 3 & 4.

WHICH VACCINES ARE GIVEN AT BIRTH?

1

OPV Oral

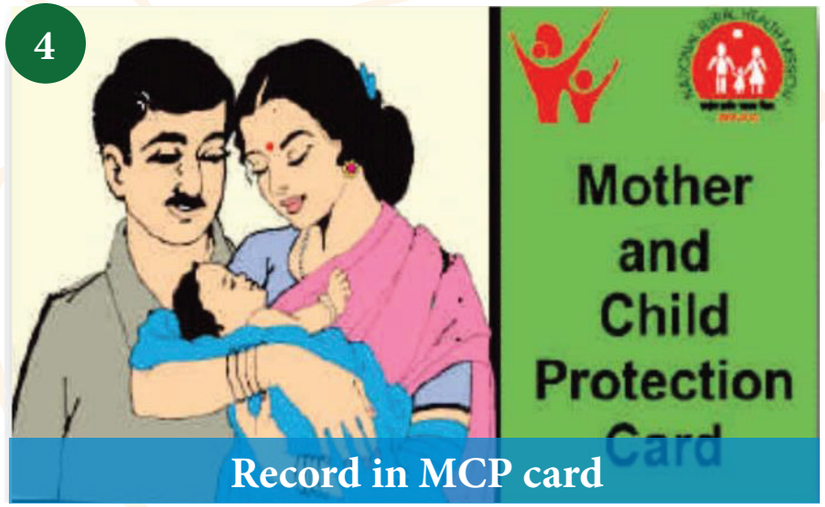
2

BCG-Intra Dermal

3

Hepatitis B Intramuscular

4



Record in MCP card

DISCHARGE AND FOLLOW UP PLAN

Time: 30 minutes

Ask: ***When should you discharge a baby? What messages will you give to parents/caregivers at discharge?***

Discharge planning	Discharge advice	Explain
Checklist before discharge **a.** Infant is free from illness and significant jaundice. (A referral is warranted if palms and soles appear yellow) **b.** Has received the three vaccines namely OPV, Hepatitis B and BCG **c.** Breastfeeding is established if baby feeds 8-10 times during day and night, passes urine 6-8 times in 24 hours and sleeps well after feeds **e.** Mother is free from any significant illness	Advise the mother to; **a.** Keep the baby warm **b.** Exclusively breastfeed her baby **c.** Play & communicate with the baby **d.** Wash hands, keep cord clean and dry **e.** Watch for signs of sickness **f.** When to come for follow up Baby appears sick, difficulty in feeding, lethargic, breathing is fast or difficult, yellow palms and soles or cold to touch/fever	How to give discharge advice to mothers in simple language? Do a role play where a scene of discharge counselling by the health care provider to the mother of a low birth weight baby is enacted. Emphasis should be on the messages that the mother needs to know and the skills required for counselling Familiarize mother with the MCP card

KEY MESSAGES

1. Always check before discharge that baby is free from illness, significant jaundice and has received the three vaccines namely OPV, Hepatitis B and BCG.
2. Mother is confident of taking care of the baby and is free from any significant illness.
3. Make sure baby is breastfeeding adequately (8-10 times) during day and night.
4. Breastfeeding is considered adequate if the baby passes urine 6-8 times in 24 hours and sleeps for 2-3 hours after the feeds.

HOW DO YOU PLAN FOR DISCHARGE AND FOLLOW UP

Examination before discharge

Discharge counselling

NEONATAL TRANSPORT

Time: 30 minutes

Ask: ***What are the indications for referring a newborn and how is safe transfer ensured.***

Discuss and demonstrate ***the activities related with neonatal transport***

Indications for Referral	Components of Safe Transfer	Group Discussion & Demonstrate

1. All babies who require PPV for more than 1 minute during resuscitation
2. All LBW babies < 1800 gms
3. Feeding difficulty
4. Respiratory rate more than 60 per min (at least on two counts)/ apnoea/severe chest indrawing
5. Any baby having temperature less than 35.5°C
6. Fever >37.5°C
7. Lethargy
8. Abnormal movements
	• Communication with parents & referral unit
	• Stabilization prior to transport as under:
	  • Maintenance of "warm chain" by placing baby in KMC with the mother/any other available method like transport incubator
	  • Maintenance of airway and oxygenation. If need be, continue bag and mask ventilation
	  • In case the newborn is accepting feeds, then continue breastfeeding
		Discuss current modes and process of neonatal transport. Explain that under Janani Shishu Suraksha Karyakram (JSSK) and National Ambulance Services, free referral transport is available

KEY MESSAGES

Ensure pre referral management of the babies and provide all the relevant information on referral note. Communicate to the attendants the need for referral.

HOW DO YOU TRANSPORT A NEONATE ?

RADIANT WARMER: FAMILIARIZING WITH THE MACHINE

Time: 30 minutes

Demonstrate radiant warmer: *parts and functioning*

Sr. No	Parts of warmer	Functions of the part	Demonstrate/Explain
1.	Bassinet	For placing the neonate	Cleaning of the bassinet, mattress & sheet
2.	Mode selector	Selects manual or servo mode	Setting up of manual mode & servo mode. How different modes help in different settings
3.	Quartz/ceramic rod	Provides radiant heat	Explain the need of using the principle of one RW for one baby
4.	Temperature selection panel	Select either set temperature or skin temperature	Show the different buttons and how to use them for setting temperature
5.	Temperature selection knobs	Select a desired set temperature	Discuss the range of normal temperature and alarm setting
6.	Temperature display	Displays temperature as set or measured	Demonstrate how to set the temperature
7.	Skin probe	When attached to the baby's skin, displays skin temperature	Importance of probe secured in place
8.	Control panel	Has a collection of display and control features/knobs	Explain the data on the display panel
9.	Heater output display	Indicates how much is the heater output	Explain the significance of heater output - Low output signifies better temperature maintenance by the baby
10.	Alarms	Alarm setting for low and high temperature	The functioning and trouble shooting

KEY MESSAGES

1. Check temperature manually at least once per shift.
2. Always respond to alarms promptly and take corrective measures.

ARE YOU FAMILIAR WITH THE WORKING OF RADIANT WARMER?

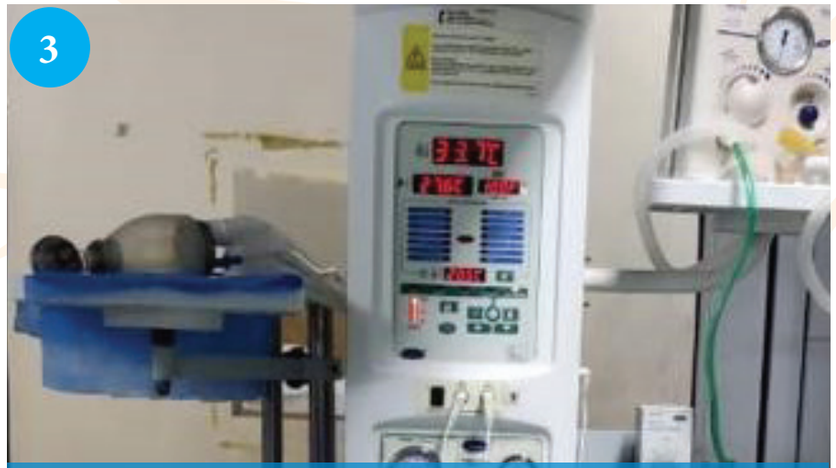
1

Quartz/Ceramic Rod

2

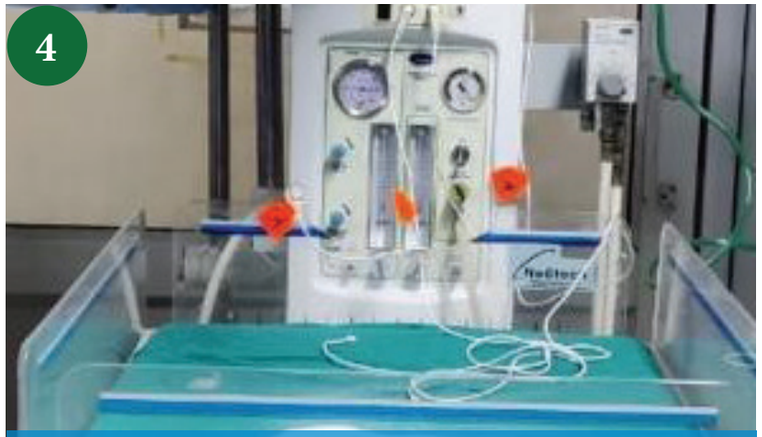
Radiant Warmer

3



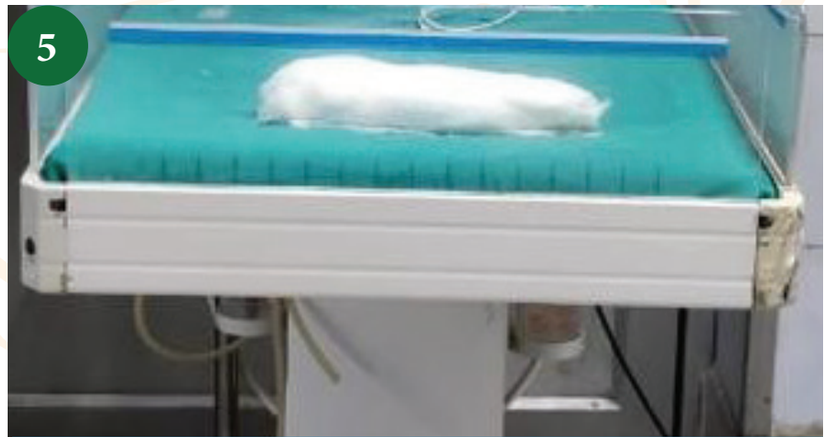
Display Panel

4



Skin Probe

5



Bassinet

BAG & MASK–PARTS AND FUNCTION

Time: 30 minutes

Demonstrate assembling of bag and mask and checking functionality of a self-inflating bag

Bag & Mask		**Explain**	
	EQUIPMENT SIZE	Volume ranging from 240 to 500 ml	
	PARTS		
	Mask – 0 for preterm and 1 for term	Appropriate sized mask should cover the tip of the chin, the mouth, and the nose but not the eyes	Demonstrate how to choose the correct sized mask
	Body of bag	Made of autoclavable material	Demonstrate parts of the self-inflating bag
	Two inlets - wider for air and the other for oxygen.	Oxygen tubing attached at oxygen inlet & reservoir to air inlet	
	Pop-off valve- situated on top of the bag	It is a pressure release valve, which opens if excessive pressure is generated, to prevent lung injury and resulting air leak	Ask the participants to self check the pop off valve
	Patient outlet - Mask is attached at the anterior end of the bag known as patient outlet		
CLEANING	Disassemble all parts, wash thoroughly with warm water and soap. Autoclave or soak in glutaraldehyde 2% for 30 minutes for disinfection and for 6 hours for sterilization. After removing from glutaraldehyde rinse with clean water, dry with sterile cloth and then reassemble. Clean mask with spirit between patient use. Disinfect daily and sterilize weekly		
CHECKING FUNCTIONALITY	Form a seal between the mask and the palm. Deliver a test breath against the palm & feel the pressure on the palm. Squeeze the bag for the pop off valve to open and make a sound as the air escapes, check that the bag re-inflates quickly when you release after squeezing the bag		

KEY MESSAGES

Cleaning and checking the functionality of bag and mask must be included in daily routines.

BAG & MASK: PARTS AND FUNCTIONS

Time: 30 minutes