

## CARE OF THE BABY AT BIRTH (DURING 1 HOUR AFTER BIRTH)

The module is designed to complement in-service/pre-service education and orientation of health personnel involved in care of newborns.

### LEARNING OBJECTIVES

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

- **Describe the basic needs of the baby at birth**
- **Describe evidence-based routine care of a newborn baby at birth**
- **Enumerate the components of 'Clean chain'**
- **Enlist the components of 'Warm chain'**

### MODULE CONTENTS

The module includes following elements:

- **Text material:** Easy to read format for quick reproduction and essential reference material for the participants. Key messages are highlighted in the boxes.
- **Webinar:** You will learn through a virtual classroom lecture.
- **Demonstration:** You will observe care at birth in the participating hospital.
- **Self-evaluation:** At the end of lesson you will be evaluated by MCQ examination.

#### 1. INTRODUCTION

The first hour after birth has a major influence on the survival, future health, and wellbeing of a newly born infant. The health workers have an important role at this time. The care they give during this period is critical in helping to prevent complications and ensuring intact survival.

#### 2. THE BASIC NEEDS OF A BABY AT BIRTH

The four basic needs of ALL babies at the time of birth (and for the first few weeks of life) are:

- i. Warmth**
- ii. Normal breathing**
- iii. Mother's milk**
- iv. Protection from infection**

These basic needs indicate that a baby's survival is totally dependent upon her mother and other caregivers. Therefore it is important to provide proper care to all the neonates immediately after birth. All newborns require essential newborn care to minimize the risk of illness and maximize their growth and development. This care will also prevent many newborn emergencies. For example, the umbilical cord may be the most common source of neonatal sepsis and also of tetanus infection, and good cord care can dramatically reduce the risks of these serious conditions. Exclusive breastfeeding has a significant protective effect against infections. Early breastfeeding and keeping the baby close to the mother reduce the risk of hypothermia and hypoglycemia.

***The basic needs of a baby at birth are: Warmth, normal breathing, mother's milk.***

Though most of these are discussed in separate modules, here a brief overview is given.

### 3. CARE OF THE NORMAL NEWBORN AT THE TIME OF BIRTH

The steps to be undertaken at the time of birth for all babies (including those who need resuscitation) are covered in the module on 'Basic resuscitation'. Here, we shall review the steps that are essential for a normal newborn baby at birth. The steps are summarized in the box below:

#### Immediate care of a normal newborn at the time of birth

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 (between the breasts).
3. Clamp and cut the umbilical cord.
4. Immediately dry the baby with a warm clean towel or piece of cloth; wipe the eyes.
5. Assess the baby's breathing while drying.\*
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/band on the baby.
9. Cover the baby's head with a cap. Cover the mother and baby with a warm cloth.
10. Encourage mother to initiate breastfeeding (within half an hour of birth).

***\*if the baby is not crying or breathing well, the next steps of resuscitation have to be carried out (as explained in the module on 'Basic resuscitation').***

The individual steps are briefly explained below:

#### 1. **Call out the time of birth**

It is important to tell loudly the time of birth - this helps in accurate recording of the time and more importantly, alerts other personnel in case any help is needed.

#### 2. **Receive the baby on to a warm, clean and dry towel or cloth on a warm dry surface**

The baby should be delivered on to a warm clean towel and kept on the mother's chest. If this is not possible, the baby should be kept in a clean, warm, safe place close to the mother.

#### 3. **Clamp and cut the umbilical cord**

The umbilical cord should be clamped using a sterile, disposable clamp or a sterile tie and cut using a sterile blade about 2-3 cm (1-inch) away from the skin.

#### 4. **Immediately dry the baby with a warm clean towel or piece of cloth; wipe the eyes**

The baby should be thoroughly dried to prevent from getting cold (this would be explained in the module on 'Thermal protection'). Blood or meconium on the baby's skin should be wiped away; however, the white greasy substance covering the baby's body (vernix) should not be wiped off. Because this vernix helps to protect the baby's skin and gets reabsorbed very quickly.

#### 5. **Assess the baby's breathing while drying**

At the time of drying itself, the baby's breathing should be assessed. A normal newborn should be crying vigorously or breathing regularly at a rate of 40-60 breaths per minute. If the baby is not breathing well, then the steps of resuscitation have to be carried out.

#### 6. **Wipe both the eyes with sterile gauze**

Clean the eyes using sterile gauze/cotton. Use separate gauze for each eye. Wipe from the medial side (inner canthus) to the lateral side (outer canthus).

- 7. Leave the baby between the mother's breasts to start skin-to-skin care**  
Once the cord is cut, the baby should be placed between the mother's breasts to initiate skin-to-skin care. This will help in maintaining the normal temperature of the baby as well as in promoting early breastfeeding.
- 8. Place an identity label on the baby**  
This helps in easy identification of the baby, avoiding any confusion. The label should be placed on the wrist or ankle.
- 9. Cover the baby's head with a cap. Cover the mother and baby with a warm cloth**  
Both the mother and the baby should be covered with a warm cloth, especially if the delivery room is cold (temperature less than 25°C). Since head is the major contributor to the surface area of the body, a newborn baby's head should be covered with a cap to prevent loss of heat.
- 10. Encourage mother to initiate exclusive breastfeeding**  
Breastfeeding should be initiated within half an hour of birth in all babies.

## 4. ENSURING WARMTH: 'WARM CHAIN'

A baby's skin temperature falls within seconds of being born. If the temperature continues to fall, the baby will become ill and may even die. This is why a baby **MUST** be dried immediately after birth and delivered onto a warm towel or piece of cloth, and loosely wrapped before being placed naked between the mother's breasts.

Keeping the baby between the mother's breasts ensures that the baby's temperature is kept at the correct level for as long as the skin contact continues. This first skin-to-skin contact should last uninterrupted for at least one hour after birth or until after the first breastfeed. The mother and baby should be covered with a warm and dry cloth, especially if the room temperature is lower than 25°C. The steps of prevention of heat loss are explained in the module on 'Thermal protection'.

For maintaining the temperature, it is important to understand the concept of 'Warm chain'. It means that the temperature maintenance should be a continuous process starting from the time of delivery and continued till the baby is discharged from the hospital. The components of warm chain are summarized below:

### 'WARM CHAIN'

#### 1. At delivery

- Ensure the delivery room is warm (25° C), with no draughts
- Dry the baby immediately; remove the wet cloth
- Wrap the baby with clean dry cloth
- Keep the baby close to the mother (ideally skin-to-skin)



- Postpone bathing/sponging for 24 hours

#### 2. After delivery

- Keep the baby clothed and wrapped with the head covered
- Minimize bathing especially in cool weather or for small babies
- Keep the baby close to the mother
- Use kangaroo care for stable LBW babies and for re-warming stable bigger babies
- Show the mother how to avoid hypothermia, how to recognize it, and how to re-warm a cold baby. The mother should aim to ensure that the baby's feet are warm to touch

## 5. HELPING TO ESTABLISH NORMAL BREATHING

The baby's breathing should be assessed at the time of drying. If the baby is crying vigorously or breathing adequately (chest is rising smoothly at a rate of 40 to 60 times per minute), then no intervention is needed.

However, if the baby is not breathing or gasping, then skilled care in the form of positive pressure ventilation etc. might be required. These steps are explained in the module on 'Basic resuscitation'.

## 6. INITIATING BREASTFEEDING

During the initial skin-to-skin contact position after birth, the baby should be kept between the mother's breasts; this would ensure early initiation of breastfeeding.

Initially, the baby might want to rest and would be asleep. This rest period may vary from a few minutes to 30 or 40 minutes before the baby shows signs of wanting to breastfeed. After this period (remember each baby is different and this period might vary), the baby will usually open his/her mouth and start to move the head from side to side; he may also begin to dribble. These signs indicate that the baby is ready to breastfeed.

The mother should be helped in feeding the baby once the baby shows these signs. Both the mother and the baby should be in a comfortable position. The baby should be put next to the mother's breasts with his mouth opposite the nipple and areola. The baby should attach to the breast by itself when it is ready. When the baby is attached, attachment and positioning should be checked. The mother should be helped to correct anything which is not quite right.

The procedure of counseling and support for breastfeeding are explained in the module on 'Feeding of normal and low birth weight infants'.

## 7. PREVENTION OF INFECTIONS: 'CLEAN CHAIN'

Babies are securely placed in their mothers' womb. When they are born, they have to be protected from the adverse environment of the surroundings. Cleanliness at delivery reduces the risk of infection for the mother and baby, especially neonatal sepsis and tetanus. Cleanliness requires mothers, families, and health professionals to avoid harmful traditional practices, and prepare necessary materials. Hand washing is the single most important step to be emphasized to both family members and health care workers.

Similar to warm chain, 'Clean chain' has to be followed both at the time of delivery and then till the time of discharge to protect the infant from infections. The components of clean chain are summarized below:

### 'CLEAN CHAIN'

#### 1. Clean delivery (*WHO's six cleans*)

- Clean attendant's hands (washed with soap)
- Clean delivery surface
- Clean cord- cutting instrument (i.e. razor, blade)
- Clean string to tie cord
- Clean cloth to wrap the baby
- Clean cloth to wrap the mother

#### 2. After delivery

- All caregivers should wash hands before handling the baby
- Feed only breast milk
- Keep the cord clean and dry; do not apply anything
- Use a clean cloth as a diaper/napkin
- Wash your hands after changing diaper/napkin. Keep the baby clothed and wrapped with the head covered

## 8. IMMEDIATE CORD AND EYE CARE

### 8.1 Immediate cord care

The umbilical cord can be cut and clamped/tied (according to local custom) while the baby is on the mother's abdomen or on a warm, clean and dry surface.

The steps of clamping, cutting the cord and its care after cutting are summarized in the box below:

#### Immediate care of the umbilical cord

1. Put the baby on mother's chest or on a warm, clean and dry surface close to the mother.
2. Change gloves; if not possible, wash gloved hands.
3. Put ties (using a sterile tie) tightly around cord at 2 cm and 5 cm from the abdomen.
4. Cut between the ties with a sterile instrument (e.g. blade).
5. Observe for oozing blood. If blood oozes, place a second tie between the skin and first tie.
6. DO NOT APPLY ANY SUBSTANCE TO THE STUMP.
7. DO NOT bind or bandage stump.
8. Leave stump uncovered.

**Note: Applying traditional remedies to the cord may cause infections and tetanus.**

### 8.2 Eye Care

Eye care is given to protect a baby's eyes from infection. In areas where sexually transmitted diseases are common, eye care is needed soon after delivery because infections such as gonorrhoea can be passed onto the baby during the birthing process which can result in blindness.

A baby's eyes should be **wiped as soon as possible after birth**. Both eyes should be gently wiped with separate sterile swabs soaked in warm sterile water.

Eye drops or ointment should be given **within one hour of delivery**. This can be done after the baby has been dried or when he is being held by his mother.

After instilling the eye drops, care should be taken so that the drug is not washed away.

***A baby's eyes should be wiped as soon as possible after birth***

***In areas where sexually transmitted diseases are common an anti-microbial eye medicine should be applied within one hour of birth***

### Eye care

#### Do's:

- Clean eyes immediately after birth with swabs soaked in sterile water using separate swabs for each eye. Clean from medial to lateral side
- Give prophylactic eye drops within 1 hour of birth as per hospital policy

#### Don'ts:

- Do not apply anything else (e.g. Kajal) in the eyes

## 8. MONITORING THE BABY

During the first hour after delivery, the baby (and the mother) should be monitored every 15 minutes. Both of them should remain in the delivery room for the first hour to facilitate monitoring.

**DO NOT leave the mother and baby alone, monitor every 15 minutes**

The three most important parameters that need to be monitored are:

- Breathing**
- Temperature** or warmth and
- Color**

The health personnel should monitor these three parameters every 15 minutes in the first hour after birth of the baby. The signs to be looked for are given in the table below:

**Table 1 : Monitoring the baby in the first hour after birth**

Parameter	What to look for?
Breathing	Listen for grunting; Look for chest in-drawing and fast breathing
Warmth	Check to see if baby's feet are cold to touch (by using your hands)
Color	Evaluate the color of the trunk and extremities

## 9. SPECIAL SITUATIONS

### 9.1 Caesarean section, instrumental delivery

Caesarean section, instrumental delivery and breech delivery, all carry increased risks to the mother and to the baby. Before delivery, preparation for newborn resuscitation should be made in all these cases, since the need for resuscitation might be more in them as compared to a normal delivery.

Delay between the time of birth and skin-to-skin contact & the first breastfeed may happen in each of these special situations. Also, separation is common, leading to babies receiving pre-lacteal feeds in the first hours after birth. If a long delay between delivery and breastfeeding is expected, encourage the mother to express colostrum. If the mother is too ill to express herself, do it for her.

A mother who has delivered by caesarean section should **NOT** be routinely separated from her baby unless either the mother or the baby is sick and needs special care. The baby should be kept in the same room as its mother.

Once the baby is born, monitoring every 15 minutes in the first hour will be particularly important.

***A baby born by caesarean section or instrumental delivery need not be routinely separated from the mother; these babies need better readiness during delivery and more careful monitoring after birth.***

*Skin-to-skin contact and breastfeeding in difficult deliveries (caesarean section, instrumental and breech delivery):*

- A mother who was given a general anaesthetic agent should begin skin-to-skin contact as soon as she is able to respond to her baby. This may be initiated within one hour of birth
- A mother who has had an epidural (spinal) anaesthesia may be able to start skin-to-skin contact very soon after surgery
- These mothers will need additional assistance in positioning and attaching the baby comfortably. Breastfeeding in lying down position may be more comfortable in the first days
- Breastfeeding can begin as soon as the mother is comfortable and able to respond to her baby. It does not have to be delayed

### **9.2. HIV and newborn care at birth**

Whether a mother is HIV positive or not, universal precautions use HIV kit contents as per national guidelines while delivering must always be observed and followed when delivering a baby.

**Care of the baby at delivery should be no different from the care already described.**

If the mother has decided to breastfeed, she should begin skin-to-skin contact as soon as possible after delivery and let her baby breastfeed when she is ready.

If the mother has decided not to breastfeed but has chosen replacement feeding, the first few feeds should be prepared for her. These feeds should be **given by cup NOT bottle**. Avoid mixed feeding (breast and replacement).

The salient features of care in these infants are summarized in the box below:

#### **Care of a baby born to HIV+ve mother**

1. Universal precautions must be followed as with any other delivery.
2. Baby can have immediate skin-to-skin contact as any other mother and baby.
3. Breastfeeding can begin when the baby is ready after delivery.\*
4. If mother chooses replacement feeding, prepare formula for the first few feeds.
5. All other care (including cord care and eye care) remains the same.

**\*Mother should be counseled regarding the mode of feeding before delivery**