FOREWORD

An unacceptable number of babies around the world die in the first week of life with the highest number dying within the first 24 hours of birth\(^1\). Many of these deaths occur to babies born too early and too small, or with infections, or to babies asphyxiated around the time of delivery. Studies have shown that many newborn lives can be saved by the use of simple low technological interventions. The conditions causing newborn deaths can also result in severe and lifelong disability in babies who survive. The main causes of neonatal mortality are intrinsically linked to the health of the mother and the care she receives before, during and immediately after giving birth.

Interventions such as: supporting breastfeeding; providing adequate warmth; ensuring good hygiene and cord care; recognising early signs of danger and providing prompt treatment and referral; giving extra care to small babies and having skilled health workers attend mothers and babies at delivery and in the immediate post-partum period - can all increase a newborn babies chances of survival.

Overcoming the present fragmentation of care for newborns is no easy task. Maternal, perinatal and neonatal survival requires interventions and appropriate technologies. Most critical medical problems and complications are best delivered within a programme that ensures a continuum of care for the woman and her baby throughout pregnancy, childbirth and the postpartum period, at the primary care level for all pregnant women and at higher levels of care for women and babies with complications.

Tanzania is among those countries that have had success in reducing child mortality 24% reduction in under fives and 31% reduction in infant mortality with no significant progress in reducing neonatal deaths. The neonatal mortality rate was 40.4 per 1,000 live births in 1999 and 26 per 1,000 live births in 2009/10(TDHS). Up to 50% of neonatal deaths occur in the first 24 hours of life, with over 75% of them arising in the first week of life. Infections account for 33% of newborn deaths while 27% are due to low birth weight many of whom are preterm (Tanzania Newborn Situation Analysis 2009). Improving child health is fundamental to the promotion of socio-economic development and meeting the Millenium goal 4 for Tanzania.

The Essential Newborn Care Course aims to ensure health workers have the skills and knowledge to provide appropriate care at the most vulnerable period in a baby’s life. Health workers are taught to use the essential newborn care up-to-date evidence based information and management of babies with a range of needs in the initial newborn period.

To reduce neonatal mortality and morbidity the practices of health workers and others caring for newborn babies must be improved. This can be achieved by training more trainers who in turn can update the knowledge and skills of those caring for babies at the time of birth and in the early postpartum period.

It is the expectation of the Ministry of Health and Social welfare that, the Essential Newborn Care manuals will be used by the policy makers, planners and implementers and partners to guide the training on Newborn Care services at National, Regional, District and health facility levels to ensure survival and optimal development of newborn babies.

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Dr. Donan W. Mmbando
Director of Preventive Services
Ministry of Health and Social Welfare
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**Introductory Module**

**Introduction**

**Why is this course needed?**

An unacceptable number of babies around the world die in the first week of life with the highest number dying within the first 24 hours of birth. Many of these deaths occur to babies born too early and too small, or with infections, or to babies asphyxiated around the time of delivery.

Tanzania is among those countries that have had success in reducing child mortality, 24% reduction in under fives and 31% reduction in infant mortality. The reduction in infant mortality was mostly post neonatal and there has been no significant progress in reducing neonatal deaths. The neonatal mortality rate was 40.4 per 1,000 live births in 1999 and 26 per 1,000 live births in 2009/10 (TDHS). Up to 50% of neonatal deaths occur in the first 24 hours of life, with over 75% of them arising in the first week of life. Infections account for 33% of newborn deaths while 27% are due to low birth weight many of whom are preterm (Tanzania Newborn Situation Analysis 2009).

Studies have shown that many newborn lives can be saved by the use of simple low technological interventions. Interventions such as: supporting breastfeeding; providing adequate warmth; ensuring good hygiene and cord care; recognising early signs of danger and providing prompt treatment and referral; giving extra care to small babies and having skilled health workers attend mothers and babies at delivery and in the immediate post-partum period - can all increase a newborn babies chances of survival.

The Essential Newborn Care Course (ENCC) aims to ensure health workers have the skills and knowledge to provide appropriate care at the most vulnerable period in a baby’s life. Health workers are taught to use the ‘Pregnancy, Childbirth, Postpartum and Newborn Care: A Guide for essential practice’ and particularly the sections concerned with newborn care which provides up-to-date evidence based information and management of babies with a range of needs in the initial newborn period.

The course is for health workers already working or intending to work in a primary level health facility with mothers and babies between birth and at least the first seven days of life. It is in modular form and each module has various sessions.

**Module 1 - Care of the baby at the time of birth**

Sessions:
1. Introduction to ENC Chartbooklet and PCPNC Chartbooklet
2. Standard precautions
3. Care of the baby at the time of birth
4. Keeping the baby warm

**Module 2 - Examination of the newborn baby**

Sessions:
1. Breastfeeding the newborn baby: ensuring a good start
2. Communication skills
3. Examination of the newborn baby

**Module 3 - Care of the newborn baby until discharge**

Sessions:
1. Resuscitation of the newborn baby
2. Routine care of the newborn baby

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MODULE 1: CARE OF THE BABY AT THE TIME OF BIRTH

CONTENTS

Introduction to ENC Chart booklet

Standard Precautions

Care of the newborn baby at the time of birth

Keeping the baby warm
SESSION 1
Introduction to ENC Chartbooklet

This Chart booklet is a tool for clinical decision-making. The content is presented in a frame work of coloured flow charts supported by information and treatment charts which give further details of care.

The framework is based on a syndromic approach whereby the skilled attendant identifies a limited number of key clinical signs and symptoms, enabling her/him to classify the condition according to severity and give appropriate treatment. Severity is marked in colour: pink for emergencies, yellow for less urgent conditions which nevertheless need attention, and green for normal care.
SESSION 2

Standard precautions and cleanliness

Introduction
In all health care facilities and whenever care is given certain precautions must be taken to protect the mother, baby, and the health workers from infections with bacteria and viruses, including HIV. Providing ‘protection’ needs planning and preparation BEFORE care is given. Standard precautions are information that helps to save lives and health workers must be familiar with and use them in their daily work. Standard precautions have two primary objectives:

- Prevent major infections when providing services
- Minimize the risk of transmitting serious diseases such as hepatitis B and HIV/AIDS to the mother and her baby and to the health worker

Objective
At the end of this session, participants will be:

- Familiar with the standard precaution which protect a mother and her baby and health workers from exposure to diseases spread by blood and certain bodily fluids.

Standard precautions practices are based on the following principles:

- Every person is considered potentially infectious;
- Hand washing is the most practical procedure for preventing cross-contamination;
- Wear gloves before touching anything wet from broken skin, mucous membranes, blood or other body fluids;
- Use barriers such as aprons, face mask if splashes and spills of any body fluids are anticipated;
- Use safe work practices, such as not recapping or bending needles, proper instrument processing and proper disposal of medical waste.

The steps for standard precautions and cleanliness include:

- Wash hands
- Wear gloves
- Protect yourself from blood and other body fluids during deliveries
- Practice safe disposal of sharps
- Practice safe waste disposal
- Deal with contaminated laundry
- Sterilize and clean contaminated equipment

Hand washing is of particular importance for all health workers. It is essential before and after visiting and touching any mothers and babies or carrying out any new tasks. Hand washing is very effective if done properly. Remember to take off unnecessary rings, jewellery and watches. Keep finger nails short and remove nail polish. This helps to protect mother, baby and health worker against infection.

Hand washing procedure:-

- Apply plain or anti-microbial soap to your hands, work into lather.
- Rub hands in a circular movement, covering the front and back of the hands, in between the thumb and fingers and the wrist.
- Wash for 40 – 60 seconds
- Rinse with a stream of running or poured water.
- Use SINGLE USE towels to dry your hands
Gloves
- Gloves worn for the delivery should be **CHANGED** before cutting the baby’s cord or giving the mother further treatment or care.

**EXERCISE**

1. In which page of the ENC Chartbooklet can information on Standard Precautions and Cleanliness be found?
2. List the precautions which should be taken:

These points are ‘principles of good care. They should become routine practice when working with mothers and babies.
SESSION 3

Care of the baby at the time of birth

(Until around 1 hour after birth)

Introduction
Care of the baby and the mother at the time of birth is very crucial and has major influence for survival, future health and wellbeing. Health workers have an important role at this time. High quality care prevents complications and maintains normality.

Objectives

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

• Prepare for a birth
• Discuss and practice evidence based routine care of a newborn baby at the time of birth

Preparation for a birth

Ensure all delivery equipment and supplies, including newborn resuscitation equipment, are available, place of delivery is clean and warm (25°C) and an area for resuscitation is warm, dry, and well-lighted.

Care of the baby at the time of birth

The birth of Bahati

At birth, the baby including Bahati, has basic needs for survival. These needs are air through breathing, protection, provision of warmth and food. A baby’s survival is totally dependent upon its mother and other caregivers. Hence the mother must be alert to respond immediately to her baby's needs after birth. Therefore it is important to provide the type of care during labour and delivery which reduces the risk of complications and keeps the birthing process as normal as possible.
The second stage of labour and immediate newborn care
All delivery equipment and supplies, including newborn resuscitation equipment should be readily available. The delivery area should be clean and warm at 25°C.

The following is the order of carrying out immediate care of the mother and baby:

- Call out the time of birth and ask assistant to record time of birth
- Deliver the baby onto a warm, clean and dry towel or cloth on a warm dry surface.
- Immediately dry the baby with a warm clean towel or piece of cloth.
- Wipe eyes with a separate piece of dry clean cloth and put a small amount of 1% Tetracycline eye ointment on the inside of the baby's lower eye lid.
- Assess the baby's breathing while drying. Make sure there is no second baby and CHANGE GLOVES.
- Clamp and cut the umbilical cord
- Leave the baby between the mother's breasts to start skin-to-skin care
- Place an identity label on the baby and mother
- Cover the baby's head. Cover the mother and baby with a warm cloth.
- Encourage the initiation of breastfeeding within 1 hour.

The baby's need to breathe normally
- Breathe normally was identified as one of the baby's immediate and basic needs. A baby can die or become brain damaged very quickly if breathing does not start soon after birth.
- Oxygen is needed to keep the baby's brain and other vital organs healthy. When the umbilical cord is cut the baby no longer receives oxygen via the placenta.
- Once a baby is born, and while it is being dried, the baby's breathing should be assessed. If a baby is breathing normally both sides of its chest will rise and fall equally at around 30 to 60 times a minute.

The majority of babies do not have problems with their breathing after birth. Therefore, it is vital to recognise those babies who do need immediate help.

The theory and practice of Resuscitation will be covered separately in another session. Nevertheless there are important issues to remember at the time of delivery:

- Resuscitation equipment should always be close to where the baby is being born
- It should be READY for use
- Health workers MUST know how to use it quickly and correctly.
- Equipment MUST be checked daily and well before a delivery takes place so that if it is broken it can be replaced or mended.
**NOTE:** avoid using broken equipments as they are dangerous to the baby

**Broken equipment**

- Broken equipment is dangerous

**How to keep the baby warm after delivery:**
Provide a clean, warm, draught free room for delivery at 25-28°C
After birth immediately dry with a clean, dry, warm cloth

Put a baby on mother’s abdomen or on a warm, clean, dry surface
Give baby to its mother for skin-skin contact

Put naked baby between mother’s naked breasts, cover them both. Cover baby’s head
Encourage breastfeeding as soon as possible after birth

If mother and baby are separated wrap baby in warm covers and place in a bed in a warm room
Use a radiant heater if the room is not warm or baby is small
Immediate cord care
After delivering the baby:
**Change gloves**
Clamp and cut the cord

Put ties tightly around cord at 2cm and 5cm from babies' abdomen
Cut between ties with a sterile equipment. Use cord clump if available
Observe for oozing blood. If blood oozes, place a second tie between the skin and first tie. The baby receives needed blood from the placenta in the first minutes after birth. Wait at least up to 3 minutes, to tie and cut the cord if the baby is receiving routine care and the mother has no bleeding problems.

DO NOT apply any substance to stump
DO NOT bind or bandage stump
Leave stump uncovered
**Eye care at the time of birth**

Eye care at the time of birth

Eye care is given to protect a baby’s eyes from infection.
Eye ointment should be given within one hour of delivery of the placenta. This can be done after the baby has been dried or when he is being held by his mother.
Eye care is needed soon after delivery because infections such as gonorrhea 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, and an anti-microbial eye medicine should be applied within one hour of birth.
- The anti-microbial should not be washed away.
- Drug which can be used to prevent infection at the time of birth include 1% Tetracycline ointment

> **Help the mother to initiate breastfeeding within 1 hour, when the baby is ready.**

- After birth, let the baby rest comfortably on the mother’s chest in skin-to-skin contact.
- Tell the mother to help the baby to her breast when the baby sees to be ready, usually within the first hour. Signs of readiness to breastfeed are:
  - Baby looking around/moving
  - Mouth open
  - Searching
- Check position and attachment are correct at the first feed. Offer to help the mother at any time.
- Let the baby release the breast by her/him, then offer the second breast.
- Keep the mother and baby together for as long as possible after delivery
- Delay tasks such as weighing, until the first feed

A baby’s first breastfeed of colostrum is very important because it helps protect him from many common diseases and contains many important growth factors which help to develop the gut, the brain and nerves and the eyes.

**HIV and Newborn care at birth**

- Whether a mother is HIV positive or not Universal Precautions must always be observed and followed when delivering a baby.
- Care of the baby at delivery should be no different to the care already described.
- If the mother has decided to breastfeed she should begin skin-to-skin contact as soon after delivery as possible and let her baby breastfeed when he 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.
SUMMARY
1. Standard precautions
   - Use soap and water to wash and clean hands
   - Wear gloves
2. Make sure delivery area is ready for mother and new baby:
   - Keep delivery room warm, close windows
   - Have clean warm towels/cloths ready for newborn delivery
   - Dry baby with a clean cloth immediately after delivery
   - Have sterile kit to tie and cut cord
   - Help mother to wear clothes which make immediate skin contact easy
   - Keeping mother and baby in skin-to-skin contact from birth encourages breastfeeding within 1 hour

Recommended reading
PCPNC guidelines D11-12
ENC Chart booklet
EXERCISE SHEET
CARE OF THE NEWBORN BABY AT THE TIME OF DELIVERY

Session 3

Work through the following exercises and write your answers in the spaces provided.

The basic needs of a baby at birth
At birth a baby is totally dependent upon its mother and other caregivers.

1. What are a baby's immediate needs, so that he stays alive and keeps healthy?

These are the basic needs of ALL babies at the time of birth.

2. Where can you find information on the immediate care at birth?

The second stage of labour and immediate newborn care

3. What should be done for a baby at the time of birth and in what order?

4. Does a baby need help with its breathing if it is crying?

5. Describe what 'skin-to-skin' contact means.

‘To be warm’ is an immediate and basic need of the newborn baby.

6. How can a baby be kept warm after delivery

Cord care

7. Turn to page in the ENC Chartbooklet that describe immediate cord care:

Eye Care

8. Turn to page in the ENC Chartbooklet when should eye care be carried out after delivery?

9. What information does this section give you about eye care?

10. Which drugs can be used for eye care?

Monitoring the baby

11. Turn to the page in the Chartbooklet on monitoring; what information is given on this page about monitoring the baby?

12. For how long should the mother and baby be monitored?

Skin-to-skin contact and breastfeeding

13. Where can you find information on breastfeeding after delivery?

14. Why the baby is first feed important?
15 Describe what should be done if a baby does not feed in one hour of birth.

16 How can a baby be fed if the mother is ill and unable to breastfeed?

17 What options there are for a mother who cannot breastfeed at all?

Special situations
18 Read the following five statements. Some are true and some are false. Mark the false statements with an F and the true statements with a T.

- A mother who has had a caesarean section cannot breastfeed for at least 24 hours.
- It is necessary for a baby who has been born by caesarean section to go to the neonatal unit for the first 24 hours.
- A baby should be given expressed colostrum in a bottle if the mother cannot breastfeed at birth.
- After an instrumental delivery skin-to-skin contact can begin as soon as the mother is comfortable.
- A baby born by breech delivery will have difficulty with breastfeeding.

Routine care of the newborn baby at delivery
19 What can interrupt the time a mother and baby should be together immediately after birth?

HIV and Newborn care at birth
20 Where can you find information on HIV and breastfeeding and newborn care?

21 List the general preparations a health worker needs to make in the delivery area to meet the baby’s needs at birth?
Session 4

Keeping the baby warm

Introduction:
Warmth is one of the four basic needs of a baby, it is critical to the baby’s survival and well being

Objectives:

At the end of this session, participants will be able to:
- Describe how to keep a baby warm
- Understand the factors which contribute to heat loss and know how they can be prevented
- Teach the mother how to keep her baby warm after birth and at home.

How to keep a baby warm

- Dry the baby thoroughly at birth. Drying helps keep the baby warm and stimulates breathing.
- Dry the body, arms, legs, and head by gently rubbing with a cloth or towel.
- Remove the wet cloth.
- Position the baby skin-to-skin on the mother’s abdomen. The warmth from the mother’s body is one of the best ways to keep a baby warm.
- Cover the baby with a warm, dry cloth and a hat or other head covering. Otherwise, cover the baby with part of the mother’s clothing.
- Postpone bathing and weighing.

How a baby loses heat

- It is very easy for a baby to get cold, especially at the time of delivery when the baby is also wet with amniotic fluid.
- The temperature inside the mother’s womb is 38°C; once the baby is born it is in a much colder environment and immediately starts to lose heat.

A baby after delivery will lose heat in the following ways:
- It is laying on a metal surface
- It is not in skin contact with its mother
- It is not covered
- It is exposed if there is a draught
- Its head is not covered

Heat is lost in four main ways, ALL of which are commonly seen in our work places and at home.

Evaporation
- Not drying the baby after delivery when it is wet.
  (Dry the baby with a towel)

Radiation
- Not covering the baby’s head so that its body heat is able to pass into the surrounding air.
  (Put a hat onto the baby’s head)

Convection
- Leaving the baby in a draught.
  (Take the baby away from an open door or window)
Conduction
- Leaving the baby on a cold surface, particularly meta
  (Take the baby off the table top, wrap it up and indicate you have put it in a cot temporarily)

There is a set of interlinked procedures, to be taken at birth and during the next few hours and days, which reduces the loss of heat and help to keep the baby warm. This set of interlinked procedures is called a **WARM CHAIN and is comprised of:**
1. Warm delivery
2. Immediate drying
3. Skin-to-skin contact
4. Breastfeeding
5. Bathing and weighing postponed
6. Appropriate clothing and bedding
7. Mother and baby together
8. Warm transportation (skin-to-skin)
9. Warm resuscitation
10. Training and awareness

**Hypothermia?**
- A baby who is too cold (hypothermic), especially if it is small and preterm is at increased risk of becoming hypoglycaemic, ill or even dying.
- The body cannot function well when it is cold. Being too cold means that the baby has to use a lot of energy to try to keep warm. To begin with a cold baby:
  - is less active,
  - does not breastfeed well
  - has a weak cry
  - has respiratory distress
- If the baby continues to be cold these symptoms become more severe and eventually the baby will die.
- Care should also be taken not to let a baby get too hot, because that too can make a baby ill.
What is hypothermia?

Hypothermia in the newborn baby

**WORK IN GROUP USING SCENARIOS**

**Re-warming a newborn baby**

- Newborn babies cool down much faster than adults because they cannot maintain a stable body temperature as well.
- The smaller the baby and the more premature, the more difficulty they have in maintaining their temperature.
- In general, newborn babies need a warmer environment than adults do.
- A baby cannot get warm by itself if it has become cold. It will need to be ‘re-warmed’.
- Skin-to-skin contact is the best way to keep a baby warm and the best way to ‘re-warm’ a baby who:
  - has mild hypothermia (35-36.4°C).
  - is found to have cold feet
- It is a **Danger sign** if a baby has a temperature of less than 35°C or the baby’s temperature does not rise after the ‘re-warming’ procedure has been followed. This baby needs to be referred urgently to another health facility. During referral the baby should be kept in skin-to-skin contact with the mother or another person accompanying the baby.

Before re-warming a baby remove all of its clothes. Take the clothes off because they are cold. Put the baby into:

- A warm shirt that opens down the front
- A nappy
- Warm hat and socks

Put the baby between the mother’s naked breasts with skin-to-skin contact. Make sure:

- The baby’s cloths are open in the front
- Ensure the baby’s naked chest and abdomen is next to the mother’s naked chest, so that skin-to-skin contact is maintained.

Cover the baby with the mother’s clothes and an additional pre-warmed blanket.

Check the baby’s temperature every hour until normal.

Check the temperature (axilla) until it is between 36.5 - 37.5°C.

If a baby has a temperature of less than 36.5°C the baby has **hypothermia**. The temperature should rise by 0.5°C an hour.
Try to find out WHY the baby became cold, was it in a cold room, in a cot, maybe there is no obvious reason.

Keep the mother and baby together until the baby's temperature is in the normal range. If the mother wishes to move around, make sure the baby is safely secured to the mother.

- If the baby’s temperature is not up to 36.5°C or more after 2 hours of ‘re-warming’, reassess the baby using pg 9-10.

If the baby is small encourage the mother to keep it with skin-to-skin contact for as long as possible during the day and during the night.

The room where the re-warming is taking place should also be at least 25°C, with no draughts. Switch off ceiling fans etc

If the baby needs to be referred to another health facility, it should be kept in skin-to-skin contact with either the mother or another person who is going with the baby.

- If a thermometer is not available feel the baby’s feet. If they are cold to touch the baby is cold and needs to be warmed in the way shown.

- If the baby has a temperature below 36.50 C or above 37.50 C the baby will need to be observed carefully and its temperature taken hourly until it is in the normal range, after which it should be checked after two hours.

### Using Skin-to-skin contact to re-warm a cold baby

- Make sure the room is warm
- BEFORE REWARMING remove cold clothes and replace with warm clothes
- Place baby in skin-to-skin contact in a pre-warmed shirt opening at the front, a nappy, hat and socks
- Cover the baby on the mother’s chest with her clothes AND an additional warmed blanket
- Check temperature every hour
- Keep the baby with the mother until the temperature is in the normal range

### TAKING A BABY’S TEMPERATURE

**Wash your hands before taking a baby’s temperature**

- When an accurate temperature is needed because a baby is either too cold or too hot use a thermometer to take the baby’s temperature.
- Keep the baby warm throughout the procedure, the baby can continue to be held in skin-to-skin contact with its mother as you have just seen. It does not need to be in a special position for its temperature to be taken.
- A temperature taken in the Axilla, that is, under the arm in the arm pit is one of the safest methods of taking a baby’s temperature.
DO NOT take a rectal temperature it is not necessary.

- Use an ‘Axilla’ thermometer:
  - Make sure it is clean, shake it down, so that it reads less than 35°C
  - Place the silver/red/bulb end of the thermometer under the baby’s arm, in the middle of the armpit
  - Gently hold the baby’s arm against its body.
  - Keep the thermometer in place for 3-5 minutes?
  - Remove the thermometer and read the temperature
  - Record the temperature in the baby’s notes

- A newborn baby’s temperature taken under the arm is usually between 36.5 and 37.50°C

- In more severe cases of hypothermia the following signs may also be observed:
  - The baby’s face and hands and feet may develop a bright red colour (in all skin colours).
  - The skin over the baby’s back and limbs or over the whole body may become hard together with reddening and oedema (sclerema).
  - The baby becomes lethargic and develops slow, shallow and irregular breathing and a slow heart beat.
  - The baby will have a low blood sugar (hypoglycaemia) and metabolic acidosis with possible internal bleeding.

It is important to realise that these signs are danger signs and the baby needs urgent referral for medical attention if it is to survive.
EXERCISE SHEET

How a baby loses heat
Heat is lost in four main ways, all of which are commonly seen in our work places and at home.

1. Name the four ways in which heat is lost, giving examples of how they may affect a baby.

If heat loss is not prevented, but continues, a baby will develop 'hypothermia'.

2. Define 'hypothermia'.

Care should also be taken not to let a baby get too hot, because that too can make a baby ill.

Keeping a baby warm and preventing heat lost

3. List the ten steps in The 'warm' chain.

Re-warming a newborn baby

4. How should you re-warm a baby?

5. Where will you find this information?

When re-warming a baby

6. Why is it necessary to take off all the baby’s clothes?

7. Where should the clothes you put onto the baby open?

8. How often should you check the baby’s temperature after beginning to re-warm the baby?

9. How fast should the temperature rise? What temperature range is 'normal'?

10. What will you do if the temperature is not 36.5°C or more after 2 hours of ‘re-warming’?

11. What should the room temperature be where the re-warming is taking place?

Taking a baby’s temperature

12. Is it necessary to take a newborn baby’s temperature?

13. When is an accurate temperature needed?

Recommended reading

Thermal Protection of the Newborn: A Practical Guide WHO WHO/RHT/MSM/97.2
PCPNC Guidelines D11-12,19,J2-7,J10-11,K9; ENC Chartbook; Helping babies breathe
learners workbook
MODULE 2: EXAMINATION OF THE NEWBORN BABY

CONTENTS

Breastfeeding the newborn baby: ensuring a good start
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SESSION-1

Breastfeeding and the Newborn baby: Ensuring a good start

Introduction
Getting breastfeeding right before a mother leaves hospital will help her succeed in maintaining exclusive breastfeeding for the first 6 months. Health professionals have a very important role in helping mothers establish good breastfeeding practices from the time of birth.

Objectives

At the end of this session, participants will be able to:
- Describe how breastfeeding works
- Teach a mother the key points to good attachment and positioning
- Offer help to a mother with a poorly attached and positioned baby
- Help a mother to overcome common breast feeding problems

How breastfeeding works

In order to produce milk, hormones are needed. The two main hormones are prolactin and oxytocin.

Oxytocin is produced by the posterior pituitary. Suckling at the breast releases oxytocin in an intermittent manner. Oxytocin acts on the breast to produce milk ejection or “milk let down.” Oxytocin also causes uterine contractions. Lack of release of oxytocin inhibits the “milk let down” and the milk cannot be removed from the breast.

Prolactin is produced by the anterior pituitary and released into the circulation. Prolactin acts on the human breast to produce milk. It takes several minutes of the infant sucking at the breast to cause prolactin secretion. Prolactin is also important in inhibiting ovulation.

The Milk Ejection reflex

1. (Long arrow) Nerve impulses from sucking go to the brain
2. (Short arrow) The pituitary gland releases oxytocin into the bloodstream
3. (Breast) This causes muscles around the alveoli in the breast to squeeze milk to the nipple

The Prolactin Reflex

1. (Long arrow) Nerve impulses from sucking go to brain
2. (Short arrow) The pituitary gland releases prolactin into the blood
3. (Breast) This causes the alveolar cells to secrete milk and swells the alveoli

The most effective way of maintaining lactation is regular sucking/ nursing, so that both the prolactin and the milk ejection reflexes are initiated frequently.

Understanding ‘how’ breastfeeding works helps to explain:

- Why correct attachment and positioning are important to effective breastfeeding
- The causes of many common breastfeeding difficulties.
- How to keep the breasts healthy and how to manage common breast problems.

**Positioning a baby to breastfeed**

A mother must be comfortable when she holds her baby this will help maintain attachment to the breast for the duration of the breastfeed. Attachment to the breast has to be correct for successful breastfeeding to take place. However, there is **NO** one ‘correct’ position for breastfeeding.

There are many different positions which a mother can use in different situations. We must not be rigid about positioning. If a baby is gaining weight, growing well and is healthy, the mother and baby should continue to feed in a way which is comfortable for the both of them and which maintains good attachment.

**Key points to good positioning**

Whatever positions the mother uses to breastfeed her baby, the following points should apply:

- The baby’s head and body are in a straight line
- The baby’s face is opposite the nipple and the breast
- The baby’s upper lip or nose is opposite the mother’s nipple
- The baby is held or supported very close to the mother's body
- The baby’s whole body is supported if the mother is in a sitting position, especially if her baby is newborn. If an older baby supporting the neck and shoulders may be sufficient.
Good Positioning

Attachment of a baby to the breast

Key points to good attachment:

- The mouth is widely open
- The lower lip is turned outwards
- The chin is touching the breast
- More areola is visible above the baby’s mouth, than below it
Signs of good attachment
- The mouth is widely opened
- The lower lip is turned outwards
- The chin is touching the breast
- More areola is visible above the baby’s mouth, than below it

Signs of poor attachment
- The baby’s mouth is not widely opened
- The lower lip is not turned outwards.
- The chin is not touching the breast
- As much areola is visible above the baby’s mouth as below it.
- The lips are pointing forwards (pursed)

Correction of poor attachment
- Touch her baby’s lips with her nipple.
- Wait until her baby’s mouth is opened wide.
- Move her baby quickly onto her breast, aiming the baby’s lower lip well below the nipple.

Case study
- Selim is three weeks old. He is not gaining weight.
- His mother, Fatma is breastfeeding him 4 times a day and also giving him watered down cow’s milk.
- You observe a breastfeed and he is well attached and positioned and feeds hungrily.

Assess, classify, treat and advice and give follow-up to Selim and to his mother. Use ENC Chart booklet pg 9-17

Help a mother to overcome common breast feeding problems
- It is not necessary to examine a mother’s breasts as a part of routine care. However if a mother complains of nipple or breast pain an examination of her breasts should be carried out.
  1. Look at the breasts, look for:
     - Sore or fissured nipples.
     - Swelling, shininess, redness of the breast.
     - Any scars, rashes or dry skin.
  2. Feel gently for the painful part of the breast.
  3. Measure the mother’s temperature.
  4. Observe a breastfeed if not yet done – following ENC Chart booklet page 12-13
  5. A postnatal breast examination can be carried out before, during or after a feed depending upon the nature of the problem, ENC Chart booklet page 18
1. **Management of Sore Nipples**

Mother may get sore nipple or fissure if her baby is not attached to the breast correctly.

Look for a cause:
- Check the baby’s position at the breast
  - Check the baby’s attachment at the breast.
  - Examine the breasts – engorgement, fissures, candida.
  - Check the baby for candida.
- Give appropriate treatment:
  - Build the mother’s confidence
  - Improve the baby’s attachment and continue breastfeeding
  - Reduce engorgement, feed frequently, express breast milk
  - Treat candida.
- Advise the mother to:
  - Wash breasts only once a day, avoid using soap
  - Avoid medicated lotions and ointments
  - Gently smooth hind milk into nipple and areola after a breastfeed.

2. **Full breasts = NORMAL**

A mother may have full breasts in the first two or three days after delivery, when her milk supply is increasing. This is NORMAL and her milk will continue to flow without difficulty and a baby can breastfeed without difficulty.

- She should feed whenever her baby wants to be fed (on demand).
- She should not restrict the length of time the baby spends at the breast.
- If she becomes uncomfortably full she should offer to feed her baby more often.

The mother needs to be reassured that this ‘condition’ is NORMAL and lasts for around 36 to 72 hours.
11. **Engorged breasts**

- This is abnormal and can occur at any time during breastfeeding
- They are characterised by: pain, oedema, tightness especially nipple area, shiny and may look red.
- Milk does not flow and fever may occur
- Engorgement may cause a decrease in milk supply if it happens often
- If the mother has very full or engorged breasts, and her baby has difficulty attaching, advise her to express a little milk to soften the nipple area. This makes it easier for the baby to attach correctly.
- It is important that this mother continues to feed on demand and does not restrict the time the baby breastfeeds.
- Breastfeeding more frequently may help the mother, making sure the baby is correctly attached and positioned

**Case study**

- When you ask Dora how her breasts feel she replies that they are painful and that she feels hot.
- You assess a breastfeed; the baby is not well attached.
- You examine her breasts and measure her temperature. Both breasts are swollen and patchy red. Her temperature is 37.9°C.

Using ENC Chart booklet, what is wrong with Dora and how do treat her?

**Summary of differences between full and engorged breasts**

- **Engorged breasts**
  - ABNORMAL can occur at any time during breastfeeding
  - Painful. Oedematous
  - Tight, especially nipple area
  - Shiny
  - May look red
  - Milk NOT flowing
  - Fever may occur
  - Engorgement may cause a decrease in milk supply if it happens often
• **Full breasts**
  - NORMAL occurs within 36/72 hours after birth.
  - Hot, heavy, may be hard
  - Milk flowing
  - Fever uncommon

Mastitis page 19 ENC Chart booklet

- Mastitis like engorgement can happen at any time. Mastitis is different to engorgement because it affects only one part of the breast. It appears as a well-defined, red, sore and swollen area on ONE of the mother’s breasts - as can be seen above:
- Mastitis happens if there is a blocked tube (duct) and the milk does not flow from that part of the breast. It can be caused by fissured nipples, not feeding often enough, tight clothes or holding the breast during a feed.
- It can also be caused by the baby being poorly attached and not removing the milk properly from all parts (lobes) of the breast.
- If no treatment is given and the milk is not removed by feeding or expression the mother may develop an abscess
- The mother should continue breastfeeding using correct attachment and positioning.
- Give her Cloxacillin 500mg 6 hourly for 10 days and if in severe pain give her Paracetemol 500mg 6 hourly as she may feel as if she has ‘flu’ or have a high fever
- Reassure the mother to breastfeed frequently, at least every 3 hours. Using a different feeding position may help to clear the blockage.
- If the mother cannot breastfeed from the sore breast she should express her milk every 3 hours until there is an improvement or her baby can continue to breastfeed from that breast.
- If mastitis is not treated quickly an abscess can form which will require surgical drainage.
- Reassess the mother in 2 days refer her to hospital if no improvement.

Advice given to a mother who is HIV positive and who has mastitis

Let her baby continue to breastfeed on the healthy breast more often and for longer to increase milk production

- If an HIV-infected woman develops mastitis, a fissure or an abscess she should avoid breastfeeding from the affected breast while the condition persists.
- Express milk from the affected breast and throw this milk away until the mother has no fever. This is essential to prevent the condition becoming worse, to help the breast recover, and to maintain milk production. The health worker should help her to ensure that she is able
to express milk effectively. The infant can feed from the affected breast again when it has recovered.

- If both breasts are affected, she will not be able to feed from either side. The mother will need to express her milk from both breasts and throw milk away. Breastfeeding can resume when the breasts have recovered.
- The health worker will need to discuss other feeding options for her to give meanwhile. The mother may decide to heat-treat her expressed milk or commercial formula. The infant should be fed by cup.
- Give Cloxacillin 500mg 6 hourly for 14 days to avoid relapse. Give Paracetamol 500mg 6 hourly for pain relief and advice on rest.
- Sometimes a woman may decide to stop breastfeeding at this time, if she is able to give another form of milk safely. She should continue to express enough milk to allow her breasts to recover and to keep them healthy, until milk production ceases.

Case study

- Rachel know and accepts that she is HIV+ve
- She has decided to breastfeed John
- John successfully breastfed soon after birth
- How will you help Rachel to exclusively breastfeed?

How will you help Rachel to exclusively breast feed?

Reference Materials

- Breastfeeding Counselling: A training Course. WHO/CDR/93.4
- The optimal duration of exclusive breastfeeding. A Systematic Review WHO/FCH/CAH/01.23
- ENC Chart booklet
- PCPNC Guide D19 J4, J9,J10-11 K2-4, K8, M7
- Mastitis: Causes and management WHO/FCH/CAH/00.13
EXERCISE SHEET

How breastfeeding works
1. Why are the lactiferous sinuses important to good attachment of the baby to the breast

2. Look at closer at these two pictures. Which of these two babies will get milk, first or second picture?

3. Write 5 statements to describe what you see in the first picture.

4. Repeat this for the baby in the second picture.

5. What are the KEY points to GOOD attachment? (Refer picture for question 18 and 19)

Positioning a baby to breastfeed

6. Why may a mother need to use different positions to breastfeed her baby?
7. You have to give a mother help with positioning her baby at the breast over a telephone. What 5 key points can you give her?

1. What other signs of good attachment may you see or hear?

2. How long should a breastfeed last?

3. Is it normal for a mother to feel breast pain when she first starts breastfeeding her baby?

4. What should she do if she feels pain at the beginning of a feed?

5. Why should a mother take her baby off the breast if breastfeeding is uncomfortable?

Look at the next 4 photographs and answer the questions which accompany them.

13. Is this good or poor positioning?
14. What signs are clearly seen?

15. What help could you give to this mother?

16. What do you think of this attachment, write down the signs you see?

17. What would you say to this mother?

18. How could you help this mother correct her positioning?
19. What signs are clearly seen in this photo?

20. How could you help this mother?

21. What sort of problems may a baby have if it is poorly attached at the breast?

22. What sort of problems may the mother have if her baby is poorly attached to her breast?

23. What help and advice can you give to a mother with sore/cracked nipples?

24. Mother may have very full breasts in the first two or three days after delivery, when her milk supply is increasing. This is NORMAL and her milk will continue to flow without difficulty. How can she prevent her breasts from also becoming engorged?

25. Mother comes to you because her breasts are very painful which has made feeding difficult. Her breasts have become very full and feel hard. Both breasts are affected. They feel hot and look red. Milk is no longer flowing easily. What is the condition this mother is suffering from? What advice will you give to this mother?
26. Where in the ENC Chartbooklet can you find information on this condition?

27. Sometimes the mother may get a well-defined, red, sore and swollen area in ONE of her breasts. She may have a high fever and feel ill, as if she has 'flu'.

In the following paragraph put in the missing words

- This condition can also be caused by the baby not removing the milk properly from different parts (lobes) of the breast. This condition is ________. If the milk is not removed by feeding or expression then she may go on to develop an ________.

28. What advice will you give to this mother?

29. What advice will you give to a mother who is HIV positive and who has mastitis in her right breast?

General information
30. How often should a mother feed her baby in a 24 hour period?

31. Does a baby need to be given additional water to drink?

   If not, why not?

32. When can a mother who has had a caesarian section breast feed?

33. What kind of help will you need to give a mother who has had a caesarian section in the first few days after delivery?

34. Read the following case study and answer the accompanying questions
Session-2

Communication Skills

Introduction
Communication is universal. We use it in all aspects of our everyday lives, it is the basis of all the relationships we have with our family, our friends, our colleagues, those we care for and the wider world.

Objective
At the end of this session, participants will be:

• Able to use listening and learning communication skills

Types of communication

Verbal means of communication (spoken language) can have positive and negative effects on us. It can excite us, frighten us, and influence our mood, the way we respond to people and the way we behave. But communication is much more than just spoken language.

It is all the other ways we relate to the world around us, that is, the 'non-verbal' language we use, for example our facial expressions, our movements, how we use touch. Our 'body language' can indicate, without words, if we are happy, angry, bored, interested or not interested in something.

As Health workers it is vital we understand the 'power' of 'verbal' and 'non-verbal' communication in relation to our work. We need to learn certain 'skills' of communication to help us interact with new mothers, their family, friends and colleagues.

We need to become effective communicators. There are a number of simple ways to achieve this. This can be either by giving compliments or praising people.

If we make people feel 'good' they are likely to be more confident, more cooperative, accept advice and give us information. 'Praising' something about what a mother or father does for their baby can help to gain their confidence.
For example, to tell a mother of a sick baby “You made a good decision to bring your baby to the hospital so that we can help him” will make the mother feel better than saying to her “Why didn’t you bring your baby to us before?”

Conducting an examination – the importance of communication skills

ROLE PLAY 1 The first dialogue has to contain more ‘closed’ questions. The health workers do not learn a lot from the mother.

The action takes place in the postnatal ward.

ROLE PLAY 2 The second dialogue has to contain more ‘open’ questions. The health worker is given a lot of information by the mother, which is useful.
Types of questions

- Closed questions: Are used to confirm information usually are questions which have 'yes' or 'no' answers.

- Open questions: Are used to obtain more detailed information, questions should be asked so that the person answering has the opportunity to give a full and detailed answer. Questions which give this kind of information often begin with words such as 'how', 'why', 'where', 'what', 'when'. They give a person the opportunity to give relevant information.

Giving information

Sometimes it is necessary to give a mother or her family information regarding the health of the child and herself.

If information we have to give to a mother or family can have negative consequences for them, be aware that the way we communicate the information can help them to accept what has happened.

Depending upon the information, arrange for an appropriate area/room and a relative or friend to be with her.

Privacy and confidentiality

Ensure a private place for the examination and counseling that you cannot be overheard. Make sure you have the woman's consent before discussing with her partner or family.

Never discuss confidential information about clients with other providers, or outside the health facility.

Ensure all records are confidential, locked away to limit access to logbooks and registers to responsible providers only.
EXERCISE SHEET

1. Write down at least 3 things that you may say to a mother which make her feel GOOD?

2. Write down at least 3 things that you may say to a mother which can make her feel BAD?

3. Describe 2 ‘non-verbal’ ways you can make a mother feel you are interested in her.

4. Describe 2 ‘non-verbal’ ways you can make a mother feel you are not interested in what she is saying to you.

5. The question which has ‘yes’ or ‘no’ as answers; what is this type of question called?

6. Put in the missing words:
   To obtain more detailed information, questions should be asked so that the person answering has the opportunity to give a full and detailed answer. Questions which give this kind of information often begin with words such as ‘how’, ‘why’, ‘where’, ‘what’, ‘when’. These questions are called ______. ________ because they give a person the opportunity to give relevant information.

7. Will you learn a lot of information from closed or open questions?

8. Write down 3 examples of open questions.

9. Write down 3 examples of closed questions.
Session 3

Examination of the Newborn

Introduction
Examination of a newborn allows us to assess and monitor the newborn’s condition and promptly treat and give appropriate care as early as possible. It is an important part of the overall care contributing to the baby’s well being and survival.

Objectives

At the end of this session, participants will be:

- To describe and carry out an examination of a baby soon after birth; within an hour, before discharge from hospital (after 24 hours); during the first week of life at routine, follow-up or sick newborn visit and identify any conditions which need specific care treatment or follow up.
- To assess, classify and treat a newborn baby using the “Examine the Newborn” on ENC Chart booklet

When a newborn baby should be examined

After birth:
- At around an hour
- Before discharge from hospital (no discharge before 12 hours of age)
- If there is maternal concern about the baby’s condition
- If a danger sign observed during monitoring

After leaving the hospital:
- During the first week of life at a routine visit
- Follow-up
- Sick newborn visit.

During examination of a baby, if possible make sure the mother is present. Encourage her to ask about anything she is concerning about. Always write the findings in the baby’s records.

Examination format

Remember to wash the hands before and after examining a baby following standard precaution guideline.

When examining a baby follow these key steps:

1. Assess
2. Classify
3. Treat or advise
4. RECORD the findings

Record findings at the time of the examination

The examination process must be thorough and systematic. The whole baby from head to toe and the baby’s back must be examined.
Assess
- Ask Asking the mother about the baby.
- Check Checking the notes of the mother and of the baby.

Mother’s notes include:
- Details of the delivery e.g. normal, breech, instrumental, rupture of membranes 18 or more hours before delivery
- The mother’s condition before the birth e.g. temperature >38°C
- Any pre-existing maternal medical condition and treatment e.g. HIV, Tuberculosis diagnosed within 2

Baby’s notes include:
- Details of delivery
- Condition at birth
- If help was needed with breathing
- If resuscitation was needed
- If breastfeeding has taken place
- Immunisations received
- Cord and eye care given
- Urine or meconium passed

If this is a second or subsequent examination
- Findings from previous examinations
- Any previous treatments
- Any referrals
- Previous treatment

- Record Recording all relevant information in the baby’s notes.

then
- Look Carrying out a ‘visual examination’ of the baby, BEFORE touching.
- Listen Listening to the baby, particularly breathing sounds - grunting, cry.
- Feel Feeling the baby’s for tone, warmth and skin
- Record Recording all the findings in the notes.

Classify
• After ‘assessing’ the baby by completing all the ‘steps’ discussed, one or more ‘signs’ will be apparent. This will help to classify the baby, in other words give a name to the baby’s condition.

Treat and advise
• Appropriate treatment, information or advice can now be given. The mother can be taught the most appropriate way to care for her baby.

REMEMBER danger signs are a threat to the baby’s life. It is important that these are recognized and the baby treated immediately and referred urgently to hospital without delay.

The Danger Signs are:
- Not suckling (after 6 hours of age)
- Fast breathing (more than 60 breaths per minute)
- Grunting
- Fever (temperature > 38°C)
Essential Newborn Care

- Umbilicus draining pus
- Yellow skin on face in a baby less than 24 hours old

Most babies examined will be completely normal.

Normal findings of a baby:
- Passes urine six or more times a day after day 2.
- May pass six to eight watery stools a day.
- May have some vaginal bleeding for a few days during the first week after birth. It is not a sign of a problem.

Breathing

Gently uncover or undress the baby until you can see the upper chest
Start the baby’s examination by assessing his breathing. Do not use a stethoscope
Listen to his breathing for any abnormal sounds or grunting when he breathes in or out.
Normal respiratory rate of a newborn is 30 to 60 breaths per minute, with no chest in-drawing or grunting on breathing out

When assessing breathing:

- Count number of breaths taken for a full minute.
- Babies may breathe irregularly (up to 80 breaths per minute) for short periods of time.
- If not sure of breaths per minute, repeat count.

Small babies (less than 2.5 kg at birth or born before 37 weeks gestation) may:
- have some mild chest in-drawing
- periodically stop breathing for a few seconds.

Follow the video clips on how to assessing breathing

Newborn breathing

‘A’ is normal and ‘B’ is abnormal breathing

A.                                           B.

Look at the movements and assess if worries you
Look at the presenting part

- Look at the part of the baby which was born first, that is the presenting part. Usually this is the head but it may be the baby's bottom if the baby was a 'breech' delivery.
- Are there any swellings, or bruising?

**Bruising and blisters on a baby born in the breech position**

The baby may have 'moulding' (caput succedaneum) where the head appears misshapen as a result of a head first (cephalic) delivery. The bones of the skull over ride each other. A mother can be reassured that this resolves in 3 to 4 days.

**Look at the abdomen**

- Look at the abdomen, what colour is it?
- The colour of the abdomen is observed because bruising on the face may hide pallor (that is, if the baby is pale it may not be easily seen).
- When looking at the baby's abdomen look particularly at the umbilicus.
- Look particularly for any signs of redness or pus or bleeding.
- The baby with the slightly reddened umbilicus may need local treatment to prevent infection from getting worse.
- When looking at the baby's appearance there are a number of skin conditions which may be seen but which if the baby is otherwise healthy should cause no concern.
The umbilicus: Which one is normal?

The umbilicus:

<table>
<thead>
<tr>
<th>VERY SEVERE DISEASE</th>
<th>LOCAL UMBILICAL INFECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Umbilical redness, swelling extending to skin</td>
<td>Red umbilicus</td>
</tr>
<tr>
<td>or</td>
<td>or</td>
</tr>
<tr>
<td>Umbilicus draining pus</td>
<td></td>
</tr>
</tbody>
</table>

The NORMAL umbilicus is:
- Bluish-white in colour on day 1.
- It then begins to dry and shrink and
- If falls off after 7 to 10 days
- No discharge
Look the skin for colour and pustules

Remember to check the front and the back of the baby. Skin pustules are red spots or blisters, which contain pus. If available, must be managed as local bacterial infection.

Normal Skin Colour
Abnormal skin
Jaundice
Skin pustules

- When looking at the baby’s appearance there are a number of skin conditions which may be seen but which if the baby is otherwise healthy should cause no concern.

- Look at the pustules on the baby’s arm and leg in the pictures below. Pustules are a sign of bacterial infection. They are found on the skin, often under the arms, in skin folds or in the groin area.

Skin conditions: Which baby will you treat?

Look for malformations

- Look for any malformations
- After checking the fronts of the baby turn him over and check his back and legs. Make sure the baby stays warm while you are doing this.
- Finally do a physical examination. Make sure the baby does not get cold while being touched. Be gentle.

Tone

- Is the baby floppy or stiff, is his tone normal

Posture

The normal resting posture of a term newborn baby:

- loosely clenched fists
- flexed arms, hips, and knees

Small babies (less than 2.5 kg at birth or born before 37 weeks gestation)

- the limbs may be extended

Babies born in the breech position may have fully flexed hips and knees; the feet the mouth; and legs may even reach near mouth
Normal resting postures of small and term babies

The normal resting posture of a baby born in the breech position
Abnormal Posture
Look at the arm position

ABNORMAL position of arm and hand

- This baby has no spontaneous arm movement on one side. The arm and hand lie limply by the baby's side. The baby has an arm palsy (Erb or Klumpke)
- This abnormal hand and arm position may be seen after a difficult birth or after a breech delivery, which could be seen in the previous slide.
- A baby with this injury may recover movement in 6 to 9 months.
- The baby should attend a follow up clinic at one and two weeks.

Feel for warmth
Touch and feel his body, hands and feet.
Take his temperature with a thermometer

Weigh the baby
The importance of weighing a baby
- It provides a baseline and is part of growth monitoring (with length, head circumference)
- Indicates whether the baby is receiving adequate nutrition
- It identifies low birth weight babies at risk or needing monitoring or special care
- It helps to calculate drug doses
- It helps to monitor responses to treatment
- It identifies babies who may have an underlying condition and need examination assessment and treatment

The Frequency of weighing for:
- Normal baby –
  - Monthly if birth weight normal and breastfeeding well. Every two weeks if replacement feeding or treatment with isoniazid.
  - When the baby is brought for examination because it is not feeding well or is ill.
- Small baby
  - Every day until 3 consecutive times gaining weight (at least 15 g/day).
  - Weekly until 4 to 6 weeks or age (reached term).

- ALL babies should have a birth weight recorded as a baseline measurement
- Take the scales to the baby. This stops the baby having to be separated from its mother
How to weigh a baby

Prepare the scales

- Cover pan with a clean cloth

Preparing and weighing the baby

- Remove all clothing including the nappy
- Weigh baby naked
- WAIT till baby stops moving
- Read and record the weight
- Wrap the baby
- Return baby to the mother

Scale maintenance

- Clean the scale pan between each weighing
- Calibrate daily

In postnatal clinics:
Weigh a baby on THE SAME SCALES at each visit

- Keep the baby warm throughout weighing, especially if the baby is sick and or low birth weight.
- IF THE BABY FEELS COLD USE SKIN-TO-SKIN CONTACT TO WARM IT.
- Record the weight in the babies notes and growth chart/vaccination chart.
- Assess weight gain. Use this information for decision making and breastfeeding counseling.
- If anything unusual is found while examining a baby ask for a second person to come and repeat
  the examination or check on the unusual finding or concern.
- When you have finished the examination DRESS THE BABY, Keep the baby warm.
- If a baby is breastfeeding at the time of the examination observe and assess the feed. Look
  particularly at how the baby is attached to the breast and the way the mother positions him to
  feed. If a baby is not breastfeeding ask the mother to call a health worker when he next wants
  to feed so that his feeding can be observed and assessed before discharge.

ASSESS BREASTFEEDING

Ask the mother if the baby has fed in the previous hour?
Observe a mother breast feeding at least 5 minutes of a breastfeed should be observed.
Tell mothers it is abnormal if the baby
- Does not cry
- Cannot be aroused
- Cannot be consoled
- Does not wake up for feeding

Case study of an example of a baby returning to a health facility for a sick newborn
Eye infection
A mother notices her baby’s eyes are swollen and draining pus. What should she do?

What is the first thing you will do when the baby comes to the hospital?

What treatment should be given for an eye infection?

What follow up care will you advise?
EXERCISE SHEET

EXAMINATION OF THE NEWBORN BABY

Session 3

Introduction

1. Why is it important to examine a baby?

2. When should a baby be examined?

3. Why is it important to examine a baby, at the following times?

<table>
<thead>
<tr>
<th>At the time of birth</th>
<th>Before discharge and thereafter</th>
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</thead>
</table>

The examination format

4. List the steps involved in examining a baby.

5. Are these steps exactly the same for ALL baby examinations?

6. What does ‘Assess’ include?

7. Where can you find information in the ENC Chartbooklet on what the colours green, yellow and red mean which are used in the charts?
The newborn examination

8. Which of these signs are danger signs? Write Y(Yes) or N(No)

- Fast breathing (more than 60 breaths per minute)
- Birth weight 1500g < 2500g
- Grunting
- Small baby feeding well /gaining weight adequately
- Mother known to be HIV positive
- Not suckling (after 6 hours of age)
- Yellow skin on face and <24 hours old
- Eyes swollen and draining pus
- Umbilicus draining pus
- Fever (temperature > 380C)

9. Where will you find a 'Referral Record'?

10. What is your first action when you carry out an examination of a baby?

11. What information can you get from the mother’s notes?

12. What maternal situations indicate the baby requires special treatment.

13. Read the following case study. What treatment will you give to Anna’s baby?

- Anna was healthy before and during her pregnancy.
- She is on no treatment for any illness
- Her membranes ruptured one hour before giving birth.
- Her temperature was 37°C after delivery

Assessing breathing:

14. What can you learn from listening to a baby’s breathing?

15. What can you learn from counting the baby’s breaths?
16. What is the significance of counting more than 60 breaths per minute in a baby?

**Weighing a baby**
17. Why is it important to weigh a baby?

18. When should you weigh:
   a) a NORMAL baby
   b) a small baby

**Breastfeeding**
19. Describe how to assess a breastfeed?

20. If a mother complains of breast discomfort describe how to assess her breasts.

21. Where can you find this information in the ENC Chartbooklet?

**After discharge: examination of the baby**
22. When should a baby return to a health facility to be examined, after discharge?

23. Describe the examination the baby will be given at this time.

24. Read the following case study. Answer the questions given
   - A mother notices pus in her baby’s eyes. What should she do?
   - What is the first thing you will do when the baby comes to hospital?
   - What treatment should be given for an eye infection?
   - What follow up care will you advise?
25. What should the mother do before and after she cleans her baby’s eyes?

26. A baby is brought to you with yellow skin on the palms of her hands and on the soles of her feet. She is 30 hours old. Describe how will you treat this baby?
# EXAMINATION RECORDING FORM

Name (of mother) ___________________ Date____________________

How old is the baby? ________________ hours / days

Does the mother have any concerns about the baby?____________________

How is the baby feeding?______________________________

<table>
<thead>
<tr>
<th>ASK, CHECK RECORD</th>
<th>LOOK, LISTEN, FEEL</th>
<th>SIGNS (CIRCLE IF PRESENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the baby preterm (&lt;37 weeks or ≥1 month early)?</td>
<td></td>
<td>Preterm</td>
</tr>
<tr>
<td>Breech birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficult birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resuscitated at birth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the baby one of twins?</td>
<td></td>
<td>Twin</td>
</tr>
<tr>
<td>Has the baby had convulsions?</td>
<td></td>
<td>Danger sign</td>
</tr>
<tr>
<td>Is the mother very ill or transferred?</td>
<td></td>
<td>Mother not able to care for the baby</td>
</tr>
</tbody>
</table>

Assess breathing (baby must be calm)
  Grunting.
  Breathing:
  - More than 60 breaths per minute
  - Less than 30 breaths per minute?
  Chest in-drawing
  Danger sign

Look at the movements: are they normal and symmetrical?

Look at the presenting part – is there swelling and bruises?
Swelling, bruises or malformation

Look at the abdomen for pallor

Look for malformations
Swelling, bruises or malformation

Feel the tone: is the baby floppy or stiff?
Danger sign
<table>
<thead>
<tr>
<th><strong>Feel for warmth. If cold, or very warm,</strong> measure temperature. <strong>Is the temperature:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- &gt;38°C or &lt;35°C?</td>
</tr>
<tr>
<td>- 35-36.4°C?</td>
</tr>
<tr>
<td><strong>Danger sign</strong></td>
</tr>
<tr>
<td>Body temperature 35-36.4°C</td>
</tr>
</tbody>
</table>

| **Look for bleeding from stump or cut** |
| **Danger sign** |

| **Weigh the baby. Is the weight <2500g?** |
| **Birth weight <2500 g** |

| **Has the mother had within 2 days of delivery:** |
| - Fever >38°C? |
| - Infection treated with antibiotics |
| **Special treatment needs** |

| Membranes ruptured >18 hours before delivery? |
| **Special treatment needs** |

| Mother tested RPR positive? |
| **Special treatment needs** |

| Mother tested HIV positive? |
| - Has she received infant feeding counseling? |
| **Special treatment needs** |

| **Is the mother receiving TB treatment which began <2 months ago?** |
| **Special treatment needs** |

| **Look at the skin, is it yellow?** |
| - if baby is <24 hours old, look at skin on the face |
| - if baby is ≥24 hours old, look at palms and soles |
| **Jaundice** |
| **Danger sign** |

| **Look at the eyes. Are they swollen or draining pus?** |
| **Local infection** |

| **Look at the skin, particularly around the neck, armpits, inguinal area:** |
| - Are there <10 pustules? |
| - Are there ≥10 pustules, or bullae, swelling, redness or hardness of the skin? |
| **Local infection** |
| **Danger sign** |

| **Look at the umbilicus:** |
| - Is it red? |
| - Draining pus? |
| - Does the redness extend to the skin? |
| **Local infection** |
| **Danger sign** |
| **Danger sign** |

| **Assess breastfeeding (as described on page 34) and classify feeding:** |
| - Is the baby not able to feed? |
| - Does the baby have feeding difficulty? |
| **Danger sign** |
| Not feeding well |
MODULE 3: CARE OF THE NEWBORN BABY UNTIL DISCHARGE

CONTENTS

Resuscitation of the newborn baby

Routine care of the newborn baby
SESSION 1

Resuscitation of the newborn baby

Introduction

It is estimated that one in ten (10%) babies need help with breathing at birth, however it is not always possible to know in advance which babies need this help. It is essential to have at least one person who is skilled in neonatal resuscitation at the birth of every baby. Therefore, health worker must:

- Anticipate
- Be prepared
- Know what to do and in what order
- Be able to respond quickly and effectively

Basic resuscitation must begin within one minute of life if a baby has breathing difficulties. Resuscitation must be anticipated at each birth. Risk factors are poor predictors of birth asphyxia. Up to half of newborns who require resuscitation have no identifiable risk factors before birth. Since it is not easy to predict the need for resuscitation, a health worker must ensure adequate preparation. Extra support may be needed so the health worker must know when and who to call for help.

Objectives

At the end of this session the participant will be able to:

- Prepare for a birth
- Assess a newborn baby at birth and perform basic resuscitation using standard equipment if needed.
- Provide aftercare if a baby requires help with its breathing at the time of birth.

PREPARING FOR A BIRTH

Prepare the following:

- Delivery room: It is essential that the delivery room is clean, dry, well-lighted, draught free and warm (at least 25°C). ALL fans must be switched off BEFORE a birth takes place, and windows and doors closed. Before a baby is born the delivery area must be checked to ensure it is ready.

- Ventilation area: must be clean, warm, dry, and well-lighted. This can be within the delivery room or adjacent to it.

- Equipment and supplies: A safe delivery kit, Resuscitation equipment [Ambu bag (size 250-400ml) and masks (size 0 and 1), Suction device], cord ties/clamp, clock, stethoscope, cloths for baby at least two (wrappers/kitenge), gloves, medicines (1% Tetracycline eye ointment, Oxytocin, IV Fluids, ARV’s) should be within easy reach of where the delivery will take place. Necessary equipment and supplies must be checked to make sure they are functioning.

- A helper (assistant): In some circumstances the helper may be the mother’s birth companion. In other situations, a second trained person may be available. The helper should know the emergency plan.
ASSESSING A NEWBORN BABY AT BIRTH AND PERFORMING BASIC RESUSCITATION

- Deliver the baby on to mother’s abdomen or into her arms then note and call out time of birth. Evaluate if the baby is crying, a baby who is crying needs routine care (Refer session 2). Most babies cry at birth, crying means a baby is breathing well.

- If the baby did not cry at birth, assess the baby’s breathing whilst drying. Drying often provides sufficient stimulation for breathing to start in mildly depressed newborn babies. The baby must be kept warm by thoroughly drying, remember to discard the wet cloth.

How to assess breathing:

- To assess a baby’s breathing watch the way the baby’s chest rises and falls. Listen to the sounds of breathing. Check that the baby is breathing quietly and easily or crying. Make sure that air can pass freely through the baby’s nose.

- If the chest is rising then breathing is normal and no further action is needed.

- However if the baby is NOT BREATHING OR GASPING resuscitation should start within 1 minute

RESUSCITATION

- If the baby is not crying or breathing well, clear the airway and stimulate breathing. It is important to be Gentle when handling the baby especially when clearing the airway.

  - Call for HELP! So that someone else will take care of the mother.

  - Change gloves and Cut cord quickly, transfer to a firm, warm surface, if possible [under a radiant heater]. Inform the mother that baby has difficulty breathing and you will help the baby to breathe

  - Stand at the baby’s head. You will need to control the position of the head and watch the movement of the chest. The following are steps to correct POSITIONING:

  - Lay the baby on its back on a hard warm surface. Warmth should be ensured during resuscitation. Newborn babies are at risk of developing hypothermia

  - Position the baby’s head so that is slightly extended; DO NOT put the piece of cloth under the body’s head
• Clear the mouth first and then the nose.
• Gently introduce the suction tube into the mouth 5 cm from the lips and suck while withdrawing the tube. Repeat suction not than more twice.
  – Then introduce the suction tube 1-2 cm into each nostril and suck while withdrawing the tube
  – Repeat nose suction if needed - no more than twice.
• Spend no longer than 20 seconds using suction

A suction device is important for taking mucous out of the mouth to open the airway. Suction devices may be electronic or foot operated. The suction machine should not exceed a negative pressure of 100 mmHg or 130 cm water.

A mucus extractor with a bulb is NOT recommended because they are difficult to clean and are a source of cross infection. A Penguine mucus extractor which is easily cleaned can be used.

• Select the correct mask. The mask should cover the chin, mouth, and nose, but not the eyes. The mask should make a tight seal on the face so air will enter the baby’s lungs.

A face mask that is too LARGE
  – Covers the eyes
  – Extends over the tip of the chin

A face mask that is too SMALL
  – Does not cover the nose
  – Does not cover the mouth effectively
• Squeeze bag with 2 fingers or whole hand, 2-3 times. Observe for rise of chest.
• IF CHEST IS NOT RISING: reposition the head, check mask seal and squeeze bag harder with whole hand. Is it moving with the ventilation? Is baby breathing spontaneously?

• Once good seal and chest rising, ventilate at 40 squeezes per minute, observe the chest while ventilating: To help keep a rate of 40 breaths per minute, count aloud, one...two...three...one...two...three.” If you squeeze the bag as you say, “One,” and release while you say, “two...three,” you will ventilate at a rate that helps air move into and out of the lungs well.

• If the baby is breathing or crying: STOP VENTILATING then count breaths per minute and look for chest in-drawing.

• If the baby is breathing >30 breaths /min, and no chest in-drawing: Stop ventilating then put the baby in skin-to-skin contact on mother’s chest and continue care, monitor the baby every 15 minutes for vital signs (breathing, colour, heart rate and temperature) and behavior (alertness, posture, movement, breastfeeding), tell the mother the baby will probably be well.

Improve ventilation: If the baby:
• is breathing <30/min,
• is gasping
• has severe chest in-drawing
• heart rate <100/min

Admit or arrange for immediate referral
• Explain to the mother what happened, that her baby needs help with breathing
• Ventilate during the referral

Record the event on a referral form and labour record. the date, the time of the resuscitation, what has been done and the outcome.
• IF the baby is NOT breathing (stop ventilating at 20 minutes the baby is dead). Give supportive care and record the event. Refer to ENC pg 8

• Clean and check equipment.
• Prepare for the next birth
• The baby should be thoroughly examined before it is discharged from the delivery room (refer to J2 – 38).
• Tell parents that although the possibility of complications is low there is still a small probability that the baby may have problems such as feeding difficulties or convulsions in the first few days.
• Instruct them to take the baby to the nearest hospital if these problems occur.
• Encourage the mother to maintain skin-to-skin contact as much as possible in the next few days.

Summary of key steps of newborn resuscitation
1. NOTE AND CALL OUT TIME OF DELIVERY
2. Assess the baby’s breathing while drying
   a. If the baby is not crying, observe breathing
3. If Breathing well – no further action
   a. If the baby is NOT breathing or gasping
4. Cut cord quickly: transfer baby to a firm warm surface, start resuscitation.
   a. CALL FOR HELP – one person should care for the mother
   b. Keep the baby warm
   c. Open Airway
   d. If still not breathing VENTILATE
   e. If breathing or crying STOP VENTILATING
5. CONTINUE VENTILATION:
   a. If breathing <30 breaths per minute or severe chest in-drawing
   b. Arrange for admission or referral
   c. If no breathing or gasping after 20 minutes of ventilation STOP

Recommended reading
   Basic Newborn Resuscitation: A practical guide. WHO/RHT/MSM/98.1
   ENC Chart booklet
   PCPNC Guidelines K11, D11, D19
   Helping babies breathe learners workbook, 2010
**Session 1**

**EXERCISE SHEET**

**Scenario 1**

1) This baby has just been born. 
   After drying, the baby is not breathing at all.
   
   What would you do?

2) After 2 minutes of ventilation, the baby begins to breathe.
   Decide what to do next

3) Baby is breathing 36 breaths per minute. 
   There is no chest in-drawing.
   Decide what to do next.

---

**Scenario 2**

1) The baby has just been born, 
   He is gasping 1 minute after birth.
   
   What do you do?

2) After 1 minute of ventilation, the baby starts crying. 
   When you stop ventilating, the baby continues to cry.
   
   What should you do next?

3) Baby is breathing 50 breaths per minute, there is no chest in-drawing.
   Decide what to do next.

---

**Scenario 3**

1) This baby has just been born. 
   He took a few gasps and then stopped breathing.
   
   What do you do?

2) After 2 minutes of ventilation, the baby starts crying.
   
   What should you do next?

3) Baby is breathing 42 breaths per minute, 
   there is no chest in-drawing.
   Decide what to do next.
**Scenario 4**

1) This baby has just been born.  
After drying, the baby is not breathing at all.

What do you do?

2) The baby is not breathing spontaneously at all after 20 minutes of ventilation

What should you do next?

---

**Scenario 5**

1) This baby has just been born.  
The baby is not breathing at all 1 minute after birth.

What do you do?

2) After 4 minutes of ventilation, the baby starts breathing spontaneously.

What should you do next?

3) Baby is breathing 56 breaths per minute  
and has severe chest in-drawing.

What should you do?

---

**Scenario 6**

1) This baby has just been born.  
Amniotic fluid was meconium stained.  
Baby starts crying after drying.

What should you do?

2) Frequency of breathing is 46/minute.  
There is no chest in-drawing.

What do you do?
EXERCISE SHEET

Session 1: RESUSCITATION OF THE NEWBORN BABY

1. Where in the ENC Chart book let /PCPNC Guide will you find information on resuscitation?

Preparing for birth

2. List ALL resuscitation equipment and general preparation which should be made before each delivery.

Keep the baby warm
Assess breathing

3. How will you keep the baby warm at the delivery and until skin-to-skin contact can begin?

4. What should you do at the same time as you are drying the baby at delivery?

5. What are you looking for to tell you the baby is breathing normally?

6. Does a crying baby need help with its breathing?

7. What about the baby who is not crying? What will tell you if the baby does NOT need help with its breathing?

8. What will your priorities be:
   - If a baby is gasping or does not breathe regularly and there are long pauses between each breath?

9. What action will you take if the baby at delivery is not breathing at all? [see above]

10. Read the following statements. Two are not correct. Find the incorrect statements and correct the information given.

   **IF RESUSCITATION IS NECESSARY:**
   - Clamp and cut the cord if necessary
   - Transfer the baby to a cool, clean and dry surface.
   - Inform the mother that her baby is having difficulty initiating breathing and that you will help the baby to breathe.
   - Keep the naked baby under a radiant heater if possible.
Open the airway
11. Read these sentences carefully. There is a mistake in each statement. Rewrite the sentence using the correct word.

OPEN the baby’s airway. Do this by:
- Laying the baby on its back onto a hard, cold, dry, flat surface.
- Positioning the head so that it is slightly flexed.
- Placing a folded piece of cloth under the baby’s head to help maintain this position. The cloth should not be so thick as to cause over extension or flexion, as this will close the airway.

12. Fill in the missing words (underlined):

Suction
- First suction the ____________ and then the ____________ do this by gently introducing a suction tube 5 cms into the baby’s mouth until the 5 cms mark is at the baby’s ____________.
- Use suction while ____________ the tube
- Next introduce the suction tube 2 cms into ____________, using suction while withdrawing the tube and until there is no mucus.
- Repeat each suction if necessary but no more than ____________ and for no longer than ____________ seconds in total.

Ventilating the baby
13. When should you begin to ‘ventilate’ a baby?

14. Give instructions for ventilating a baby.

15. When should you stop ‘ventilating’ a baby?

16. Describe ‘in-’drawing of the chest wall’

17. When should you continue to ventilate a baby?

18. Write out the 6 steps to resuscitation

19. If a baby dies which form must you fill in?

20. Where can you find a copy of this form?

21. Describe the care of a baby AFTER it has been resuscitated?
Session 2
Routine care of the newborn baby

Introduction
• The care and help given to mothers and babies in the first few hours and days after birth, whether in a health facility or at home, should ensure their safety and well being. During this early period all new mothers have a variety of needs:
  • They need time to get to know their babies and time to rest,
  • They need to know what care to give to their baby and how to carry out the care, especially first time mothers.
  • They need to know what to do if their baby is not well.
• The majority of mothers and babies who receive their initial care in hospital usually stay for a very short time after birth, unless the baby requires special treatment.
• During the time mothers and babies are in hospital health workers give routine care but in addition they must prepare mothers and babies for discharge and beyond.
• This includes teaching the mother how to look after her baby and how to recognize and respond to early warning signs that indicate her baby needs help.

Objectives

At the end of the session the participant will be able to:
• Demonstrate immediate evidence based essential newborn care
• Teach the mother how to look after her baby and what to do if her baby has any health problems
• Describe the additional care needed by a small baby

IMMEDIATE AND ESSENTIAL NEWBORN CARE
These are comprised of:
• Keeping the baby warm
• Breathing
• Breastfeeding
• Love and safety
• Infection control: Cleanliness; cord care, eye care; skin care; immunization; treat infection promptly
• Management of complications after birth

TEACH THE MOTHER HOW TO LOOK AFTER HER BABY

How to keep the baby warm
• Within the first hours, dry the baby thoroughly
• Position the baby skin-to-skin on the mother’s abdomen. The warmth from the mother’s body is one of the best ways to keep a baby warm.
• Cover the baby with a warm, dry cloth and a cap or other head covering. Otherwise, cover the baby with part of the mother’s clothing. A normal body temperature of a newborn is 36.5-37.5°C
• Postpone bathing and weighing. A healthy baby should be bathed 24 hours after birth
• Promote Kangaroo Mother care for low birth weight babies

The first day and at home
• - Dress baby, one more layer of clothes than children or adults, wrap in soft dry clean cloth with a blanket and cover the head.
  The baby’s clothes should be dry and clean, change nappies whenever they are wet
• - Assess warmth every 4 hours by touching baby’s feet; If feet feels cold put it skin-to-skin contact + extra blanket and reassess

Trainee’s Manual 70
• Keep the room warm (not <20°C), that is free of draught. If room not warm cover baby with a blanket or use skin-to-skin
• At night let baby sleep with mother for breastfeeding

**Check breathing**
Continue to assess the baby’s breathing. Check that the baby is breathing quietly and easily or crying.
**Infection prevention and control**  
Key infection control practices are summarized below:

**Hygiene**  
Principles of cleanliness are as essential in health facilities as they are at home:  
Clean hands, clean environment, clean clothes, and clean surfaces  
Wash hands with soap and water before and after caring for a baby

**Skin care**  
Wash or bathe a baby in a WARM, draught free room

- Wash the face, neck, underarms daily  
- Bath when necessary Use warm water for bathing. Thoroughly dry the baby, dress and cover after the bath  
- Wash the buttocks when soiled then dry thoroughly  
- Use cloth on baby’s bottom to collect stool. Ensure safe disposal of stools. The mother must remember to WASH HANDS after handling the baby

**Cord care**  
The cord stump is the major means of entry of infection after birth  

**Immediate care:**  
The baby receives needed blood from the placenta in the first minutes after birth.  
Change delivery gloves  
Wait at least up to 3 minutes, to tie and cut the cord if the baby is receiving routine care and the mother has no bleeding problems.

**The first day and at home**  
Wash hands before and after cord care

- Put nothing on the stump  
- Fold nappy below stump  
- Keep stump loosely covered with clean clothes  
- If the stump is soiled, wash with clean water and soap, dry with clean cloth.  
- If umbilicus is red or draining pus or oozing blood, see the health worker.

DO NOT bandage the cord stump or abdomen  
DO NOT apply any substances or medicine to the cord stump  
- For examples do not clean the stump with alcohol, this may delay healing and is best avoided  
AVOID touching the cord stump unnecessarily.

**Eye care:**  
Eye care is given to protect a newborn’s eyes from infection. To prevent eye infection:

- Clean the eyes as soon as possible after birth  
- Apply 1% Tetracycline eye ointment
DO NOT put anything in the baby’s eyes except an antimicrobial at birth

**Immunization:**
Immunize according to EPI guidelines
ALL newborns are eligible including low birth weight babies

**Treat infections promptly**
Treat infections according to National guidelines

**Breast feeding care**
Encourage mother to breastfeed in the first hour after delivery
- Correct positioning and attachment of the baby to the breast
- Support breastfeeding on demand day and night.
- No food or fluids other than breast milk (except medicines and vitamins)
- Ask the mother to get help if there is a breastfeeding difficulty.
- Assess breastfeeding in EVERY baby before planning for discharge
- In addition to teaching mothers about positioning and attachment health workers must be able to give mothers the correct information about infant feeding options if mother has HIV infection
Remind the mother of the importance of colostrum. Give her the following information and tell her how her breast milk changes over the first few days after delivery:
- On day 1 and 2 Colostrum looks yellow and is thick and is only produced in small amounts. If a mother needs to express at this time a teaspoonful is all that she may get.
- About 2 or 3 days after birth the appearance of the milk changes, as the quantity increases. The milk looks thinner and whiter, it may even look more watery.
- This is quite normal; reassure the mother that her milk continues to be nutritionally correct for her baby.

**Love and safety**
Keep the newborn close to mother, father or other caregiver
Help the mother and family to ensure the newborn’s needs. This will help to:
- Ensure breast feeding on demand
- Prevent hypothermia
- Prevent many infections

**At discharge**
The pre-discharge examination is an ideal time to cover the items or check which items have been covered. The following should be covered;
- Immunize if due according to the National guidelines. The baby should receive;
  - BCG,
  - OPV-0,
• Advise on baby care, mother’s diet and family planning
• Advise on routine visits at the age of 2-7 days
• Advise on when to return if danger signs
• Teach the mother to continue with treatments at home as prescribed
• Record in home based record (discharge form, mother’s card or RCH card)

**Information and counselling sheets**

- Mothers and babies are in a health facility for a short time. It is impossible for the mother to remember everything she has been taught and told about.
- Give counselling card to the mothers, partners or family member. The card contains key information on breastfeeding and the care of the mother and baby after birth
- Finally make sure each baby is examined before it is discharged, after 24 hours of age and the findings are recorded

**Additional care needed by a low birth weight baby**

A low birth weight baby may be preterm or term with a weight between 1500 gm and <2500 gm. This baby is at increased risk of infection, breathing difficulties and jaundice. A low birth weight baby needs more care and monitoring than a baby born at term, with a weight above 2500 gm, **ENC Chart booklet**.

A low birth weight baby is at increased risk of becoming sick and dying if he/she is discharged before he/she is breastfeeding well, gaining weight and able to maintain a stable body temperature.

In addition to the care and monitoring given to all babies until they are discharged, the low birth weight baby needs: **ENC Chart booklet**

- Special support for breastfeeding
- Additional warmth
- Daily assessment
- Planned discharge Care in a health facility for longer than a term healthy baby
- Help with breastfeeding to prevent hypoglycaemia.
- Feeding every 2-3 hours.
- To be kept warm
- Daily monitoring, including weighing, temperature, breathing and checking for jaundice

  - **A very small baby** SHOULD ALWAYS BE URGENTLY REFERRED TO A HIGHER LEVEL HEALTH FACILITY.
    - The more preterm or the smaller the baby is, the more likely the baby is to have problems. Very small babies have feeding and breathing difficulties for a long period of time. They are at a high risk of **DEATH** from complications, **ENC Chart booklet**

**Recommended reading**

- Care of the Umbilical Cord: A review of the evidence. WHO/RHT/MSM/98.4
- ENC chart booklet
- PCPNC Guidelines **J2-11 K12-13**
- ICATT Guidelines
- Kangaroo Mother Care training manual, 2010
- Tanzanian IMCI Chart booklet
EXERCISE SHEET

Session 2

ROUTINE CARE OF THE NEWBORN BABY

Work through the following exercises and write your answers in the spaces provided

1. How long should a mother and a term healthy baby stay in hospital after delivery?

2. Where can you find this information?

3. Read the following information and then describe the routine care Bahati should be given.

   Bahati and Anna
   - Baby Bahati and his mother Anna are now in the postnatal area
   - Bahati has had his first examination and has been classified as a well baby

   Ensure care of the newborn.
   Examine again before discharge.

GENERAL CARE

4. Describe the general care of the newborn that applies to all well babies.

5. How should a baby be kept warm if it is in a cot?

BREASTFEEDING

Read the following information and answer questions 6, 7 and 8

Bahati is being breastfed
He fed well at delivery

6. Which pages in the ENC Guide will give you information to help support Bahati’s mother to breastfeed successfully?

7. What should you do if Anna reports a breastfeeding difficulty?

8. If Bahati is NOT feeding well will it affect when he is discharged or the birth attendant leaves the home?

9. Find ENC chartbooklet, Box 1 containing information on supporting ‘exclusive breastfeeding’.
   For each of the 5 points state ONE sentence to summarize the ‘key’ messages

10. What 4 things may a mother or health worker do which can interfere with exclusive breastfeeding?
Read the following information and answer questions 11 and 12:

During the examination Anna said:
- She was not sure if Bahati was attached properly for his first feed
- She was laying down for that feed

11. Why is it important for you to watch Bahati’s next breastfeed?

12. Where can you find information on attachment and positioning in the ENC Guide so that Bahati and Anna can be given appropriate help if they have problems?

Look at the chart ‘Assess Breastfeeding’

13. What can prevent a baby from feeding well, delaying his discharge?

14. What treatment and advice is suggested?

15. In the following paragraph put in the missing words:

Teaching the mother how to care for her baby

16. What does a mother need to learn?

Giving cord care

17. What should you do before you begin the baby’s cord care?

READ THE FOLLOWING. Ask participants to correct any wrong information given below:

18. Describe the advice on cord care you will give to a mother before she and her baby go home or the birth attendant leaves her home.

19. Which pages of ENC Chart booklet will you find advice on cord care?

20. What should a mother do if she finds pus is draining from her baby’s umbilicus?

21. What will you do as a health professional if a mother brings her baby to you with this problem?

22. What advice and treatment will you give?
   The mother should be taught to:
23. What else should the mother watch for?

24. On which pages of the ENC Chart booklet Guidelines will you find the relevant information?

**Hygiene**

25. Where will you find information on hygiene?

26. Is the following information correct? If not, give the correct information.

**Monitoring the baby**

27. What action should be taken if the mother or her companion says the baby’s feet are cold?

28. What action should be taken if the mother or her companion say the baby has a breathing difficulty?

29. What actions should be taken if the baby is bleeding?

30. If a baby is healthy does it need any treatment or medicines?

**Look on the page of ENC Chartbooklet - ‘Check for special treatment needs**

31. List 5 reasons why a newborn baby may need ‘special treatment’.

Read the following information:

**Case study – Micheal**

- Baby Micheal was born at 10 in the morning
- He weighs 3200 g
- His mother’s membranes ruptured 22 hr before delivery
- Michael has been classified as at risk of bacterial infection

What treatment should Michael be given?

32. What antibiotics should Michael be given?

33. What dose of Ampicillin will he need, and how often should it be given?

34. What dose of Gentamicin will he need, and how often should it be given?

35. Gentamycin should be carefully checked, as different concentrations are available in some countries. What concentration is used in the ENC Chart booklet?

36. What is the correct treatment and advice for Hassan?

**Additional needs of the small baby**

Read the information about Hassan and answer the following questions.

- Hassan has just been born
- He was 29 weeks gestation
- He weighs 1200 gm
37. How many mls at each cup feed over a 24 hour period should Jema be given on days 3 and 4?

Read about Jema and Mama Zawadi and answer the questions which follow

**Case study**
- Jema is 4 days old
- She is cup and breastfeeding
- She was 34 weeks gestation at birth
- Birthweight 1975 gm
- She now weighs 1905gm

38. Is Jema’s weight gain acceptable?

**Case study**
- Jema had a birth weight of 1975g
- She is weighed daily
- She loses 70g in the first four days after delivery
- Now at 6 days her weight is 1920 g. she has gained approximately 15g in the past 2 days.
- Her mother is very keen to take her home

39. What advice will you give to the mother about going home now?

40. What advice will you give Mama Zawadi about when to return with Jema for a follow-up visit?

**Case study**
- Jema was given BCG, OPV-0 vaccine during the week after birth.
- These immunizations are recorded on an immunization card and child records.
- Jema is ready for discharge from hospital on day 11.
- She has been gaining approximately 16g/day weight for 4 days.

41. When should Jema return for further immunisations?

42. What other information should Mama Zawadi be given about seeking care for Jema?

**Information and counseling sheets**
43. Which information and counselling sheets should be given to Jema?