

The routine care of normal babies

Objectives

- When you have completed this unit you should be able to:
- Manage a normal infant at delivery.
- Assess a newborn infant after delivery.
- Give routine care to a healthy infant.
- Advise a mother about care of a normal infant.
- Appreciate the importance of the road-to-health booklet.

3-1 What is a normal infant?

A normal infant has the following characteristics:

1. Pregnancy, labour and delivery were normal.
2. The infant is born at term.
3. The 1 minute Apgar score is 7 or more and no resuscitation is needed after birth.
4. The infant weighs between 2500 g and 4000 g at birth.
5. The birth weight falls between the 10th and 90th centiles.
6. There is no soft tissue wasting.
7. On physical examination the infant appears healthy with no congenital abnormalities or abnormal clinical signs.
8. The infant feeds well.
9. There have been no problems with the infant since delivery.

Normal infants are at low risk of developing problems in the newborn period and, therefore, require primary care only. About 80% of all infants are normal.

Normal newborn infants are at low risk of developing problems and, therefore, require only primary care.

3-2 What care should you give a normal infant immediately after delivery?

1. Dry the infant in a warm towel then transfer the infant to a second warm, dry towel. This will prevent hypothermia caused by evaporation after delivery. Drying also stimulates the infant to cry.
2. Assess the Apgar score at 1 minute. The normal infant will have an Apgar score of 7 or more and, therefore, does not need any resuscitation. It is not necessary to suction the nose and pharynx of a normal infant at birth. If the infant has a lot of secretions, turn the infant onto the side for a few minutes.
3. An initial, brief physical examination should be done to assess the infant for size, gender, gross congenital abnormalities or other obvious clinical problems. This is usually carried out at the same time as the 1 minute Apgar score.

Gloves must be worn by the nurse or doctor who delivers the infant and assesses the infant immediately after birth.

3-3 When should you clamp the umbilical cord?

The umbilical cord should be clamped with surgical forceps about 2 minutes after birth. It is also preferable to allow the infant to cry well a few times before clamping the cord. The delay after birth before clamping the cord allows the infant to receive some extra blood from the placenta. The extra blood will help prevent iron

deficiency anaemia later in the first year of life. Therefore, it is probably best to clamp the cord only after the infant has been well dried and the 1 minute Apgar score has been assessed.

The umbilical cord must be clamped or tied about 3 to 4 cm from the infant's abdomen. Once the infant's cord has been clamped, the surgical forceps can be replaced with a sterile, disposable cord clamp or a sterile cord tie.

NOTE

A recent study shows that the umbilical cord normally stops pulsating about 2 minutes after birth. Delaying cord clamping until this time increases iron stores and reduces the risk of anaemia at 6 months. There appears to be many benefits to delayed cord clamping in both term and preterm infants.

3-4 When should you give the infant to the mother?

It is essential for the mother to see and hold her infant as soon as possible after delivery. If the infant appears to be normal and healthy, the infant can be placed on the mother's abdomen while to be dried, the 1 minute Apgar score is assessed, the umbilical cord clamped and the initial examination made. The infant should then be moved into the kangaroo position between the mother's breasts. After delivery, both the infant and mother are in an alert state. The infant's eyes are usually wide open and looking around.

The mother will usually hold the infant so that she can look at the face. She will talk to her infant and touch the face and hands. This initial contact between a mother and her infant is an important stage in *bonding*. Bonding is the emotional attachment that develops between mother and child, and is an important step towards good parenting later. Where possible, it is important that the father be present at the delivery so that he can also be part of this important phase of the bonding process.

Give the infant to the mother as soon as possible after the delivery.

3-5 When should the normal infant be put to the breast?

If possible the mother should put the infant to her breast as soon after delivery because:

1. Studies have shown that the sooner the infant is put to the breast, the greater is the chance that the mother will successfully breastfeed.
2. Nipple stimulation by suckling may speed up the third stage of labour by stimulating the release of maternal oxytocin which causes the uterus to contract.
3. It reassures the mother that her infant is healthy.

Some women want to hold and look at their infants but do not want to breastfeed immediately after delivery. Their wishes should be respected. Mothers should be encouraged to start kangaroo mother care when they are given their infant. During a complicated third stage or during the repair of an episiotomy some mothers would rather not hold their infants.

3-6 When do you identify the infant?

Once the parents have had a chance to meet and inspect their new infant, formal identification by the mother and staff must be done. Labels with the mother's name and folder number, together with the infant's sex, date and time of birth are then attached to the infant's wrist and ankle. Twins must be labelled 'A' and 'B'.

Once correctly identified, other routine care can then be given. Do not identify the infant before the mother has had a chance to meet her newborn infant.

3-7 Should all infants be given vitamin K?

Yes. It is essential that all infants be given 1 mg of vitamin K1 (Konakion) by intramuscular injection into the anterolateral aspect (side) of the mid-thigh after delivery. *Never* give the vitamin K into the buttock as it may damage nerves or blood vessels that are very superficial in infants. Vitamin K prophylaxis will prevent haemorrhagic disease of the newborn. Be very careful *not* to give the infant the mother's oxytocin (Syntocinon) in error. To avoid this mistake, some hospitals give vitamin K in the nursery or postnatal ward and not in the labour ward. Do not use oral vitamin K as it has to be repeated to be effective.

All newborn infants must be given prophylactic vitamin K

NOTE

An injection of oxytocin or ergometrine into the infant by mistake results in severe apnoea after a few hours. As a result, the infant may require ventilation.

3-8 Should antibiotic ointment be placed in the eyes?

Yes, it is advisable to place tetracycline, chloramycetin or erythromycin ointment or drops routinely into both eyes to prevent Gonococcal conjunctivitis. The use of erythromycin or tetracycline will also decrease the risk of conjunctivitis due to Chlamydia.

3-9 Should all infants be weighed and measured?

Yes, it is important to measure the infant's weight and head circumference after birth. The parents are usually anxious to know the infant's weight. An assessment of the gestational age should also be made, especially if the infant weighs less than 2500 g. Usually head circumference is also measured and recorded. In low birth weight infants (less than 2500 g), these measurements should be plotted on a size for gestational age chart. It is difficult to measure length accurately without a measuring board.

The routine management of the newborn infant (identification, vitamin K, eye prophylaxis and measurement) does not have to be done immediately after birth. The infant should be given to the mother to hold and put to the breast. Once the third stage is completed, these routines can be carried out.

3-10 What care and management should be documented?

Accurate notes should be made after the infant has been delivered. It is important to document the following observations and procedures:

1. Apgar score
2. Any action taken to resuscitate the infant
3. Estimated gestational age, especially if the infant appears to be small
4. Whether the infant looks healthy or sick
5. Any abnormality or clinical problem noticed
6. Identification of the infant
7. Administration of vitamin K
8. Whether prophylactic eye ointment was given
9. Birth weight and head circumference

3-11 Should the infant stay with the mother after delivery?

Yes. If the mother and infant are well, they should not be separated. The infant can stay with the mother in the labour ward and should be transferred with her to the postnatal ward. Kangaroo mother care (skin-to-skin care) should be encouraged. If the infant is cared for by the mother, the staff will be relieved of this additional duty. Most mothers want their infants to stay with them.

If at all possible, the mother and her infant should not be separated.

3-12 Should all normal infants room-in?

Yes, all normal infants should room-in. 'Rooming-in' means that the infant stays with the mother and does not get cared for in the nursery. The infant is given kangaroo mother care or nursed in a cot (bassinet) next to the mother's bed.

The advantages of rooming-in are:

1. The mother can be close to her infant all the time and get used to caring for her infant. This strengthens bonding.
2. It encourages demand feeding and avoids all the complications of schedule feeding.
3. It promotes kangaroo mother care.
4. It prevents the infant being exposed to the infections commonly present in a nursery.
5. It reduces the number of staff needed to care for infants.
6. It builds up the mother's confidence in her ability to handle her infant.
7. Each infant will receive individual attention.

The disadvantages of rooming-in are that the infant may keep the mother awake and that the excessive crying of some infants may disturb other mothers. In practice this can be avoided by removing an occasional infant for a short while. However, this is seldom necessary. Rooming-in is the modern way of providing good care. It is not dangerous for the infant to sleep with the mother.

3-13 When should the infant receive the first bath?

There is no need to routinely bath all infants after delivery to remove the vernix. Vernix will not harm the infant and disappears spontaneously after a day or two. Vernix protects the skin and kills bacteria. Many infants also get cold if they are bathed soon after delivery. The only indication for an infant to be washed or bathed soon after birth is severe meconium staining or contamination with blood or maternal stool. A sick or high-risk infant should never be bathed soon after delivery.

It is, however, important that all primiparous mothers learn how to bath an infant before they are sent home. If these infants have to be bathed on the first day of life, it is preferable that this be delayed until they are a few hours old. A carbolic soap (e.g. Lifebuoy) is suitable as it kills bacteria. Make sure the room is warm and the infant is well dried immediately after the bath.

3-14 What is the appearance of a newborn infant's stool?

For the first few days the infant will pass meconium, which is dark green and sticky. By day 5 the stools should change from green to yellow, and by the end of the first week the stools have the appearance of scrambled egg. The stools of breastfed infants may be soft and yellow-green but should not smell offensive.

Some infants will pass a stool after every feed while others may not pass a stool for a number of days. As long as the stool is not hard, the frequency of stools is not important.

3-15 How many wet nappies should an infant have a day?

A normal infant has at least 6 wet nappies a day. If the infant has fewer than 6 wet nappies a day, you should suspect that the infant is not getting enough milk.

3-16 Should the mother breastfeed her infant?

Yes. There are many benefits to both the mother and her infant from breastfeeding, especially exclusive breastfeeding. HIV-positive mothers should also be encouraged to breastfeed after they have been counselled about their feeding options before the infant is born.

3-17 What routine cord care is needed?

The umbilical cord stump is soft and wet after delivery and this dead tissue is an ideal site for bacteria to grow. The cord should, therefore, be cleaned as soon as possible by daily applications of chlorhexidine solution or surgical spirits. It is important to apply enough chlorhexidine or spirits to run into all the folds around the base of the cord. There is no need to use antibiotic powders. If the cord remains soft after 24 hours, or becomes wet or smells offensively, then the cord should be treated with chlorhexidine or surgical spirits every 3 hours. Do not cover the cord with a bandage. Usually the cord will come off at between 1 and 2 weeks after delivery.

Routine cord care with chlorhexidine or surgical spirits should be used for all infants.

NOTE

Alcohol is not used to clean the cord in some first world communities where cord sepsis and neonatal tetanus are rare. This practice is not appropriate in poor communities.

3-18 When should the normal infant be fully examined?

It is an important part of primary care to carefully examine all normal infants within 24 hours of delivery and before the infant is discharged home. The examination should be done after the mother and infant have recovered from the delivery, which usually takes about 2 hours. The infant must be examined in front of the mother so that she is reassured that the infant is normal. It also gives her a chance to ask questions about her infant. A quick look to exclude major abnormalities is done when the infant is dried immediately after delivery.

3-19 Is it normal for an infant to lose weight after birth?

Yes. Most breastfed infants will lose weight for the first few days after birth due to the small volume of breast milk being produced. Colostrum, however, will meet the infant's nutritional needs. Once the breast milk 'comes in', between days 3 and 5, the infant will start to gain weight. Most breastfed infants regain their birth weight by day 7. This weight loss is normal and does not cause the infant any harm. The normal infant does not lose more than 10% of the birth weight. Formula-fed infants may not show this initial weight loss.

It is normal for an infant to lose some weight during the first few days.

NOTE

To prevent dehydration during the first few days of life, when the mother's breast milk production is still limited, all infants have physiological oliguria.

3-20 Is it necessary to weigh a normal infant every day?

No. The normal infant should be weighed at delivery and again on days 3 and 5 if still in hospital. Weight at discharge must be recorded. At every clinic visit the infant's weight should be measured and recorded. Test weighing is not needed in normal infants. After the first week most infants gain about 25 g per day.

3-21 How should the infant be dressed?

It is important that the infant does not get too hot or too cold. Usually an infant wears a cotton vest and a gown that ties at the back. A disposable or washable nappy is worn. If the room is cold, a woollen cap should be worn. Woollen booties are sometimes also worn. It is important that the clothing is not too tight. Infants should be dressed so that they are comfortable and warm. Usually a single woollen blanket is adequate.

3-22 Must the birth be notified?

The birth of every infant must be notified by the hospital, clinic or midwife. The parents later must register the infant's name with the local authority.

3-23 Should all infants receive a 'road to health' booklet?

Yes. All newborn infants must be given a 'road to health' booklet as this is one of the most important advances in improving the health care of children. The relevant information must be entered at birth. Mothers should be instructed as to the importance of the booklet. Explain the idea of the 'road to health' to her. She must present the card every time the infant is seen by a health-care worker. It is essential that all immunisations are entered in the booklet. A record of the infant's weight gain is also very important as poor weight gain or weight loss indicates that a child is not thriving.

All infants must be given a road-to-health booklet.

3-24 Should newborn infants be immunised?

The schedule of immunisations varies slightly in different areas of southern Africa but all newborn infants should be given B.C.G. and polio drops within 5 days of delivery. It is safe to give polio drops to preterm infants but BCG may cause problems in some HIV-infected infants. Sick infants and preterm infants are given B.C.G. and polio drops when they are ready to be discharged home.

NOTE

The use of BCG in HIV-exposed infants is controversial as BCG immunisation can result in systemic BCG in HIV-infected infants. It has been suggested that BCG immunisation should be postponed until after PCR testing at 6 weeks after the end of breastfeeding. As this is very impractical, with a third of infants HIV exposed and the transmission risk very low in South Africa, most local guidelines recommend giving all infants BCG after birth.