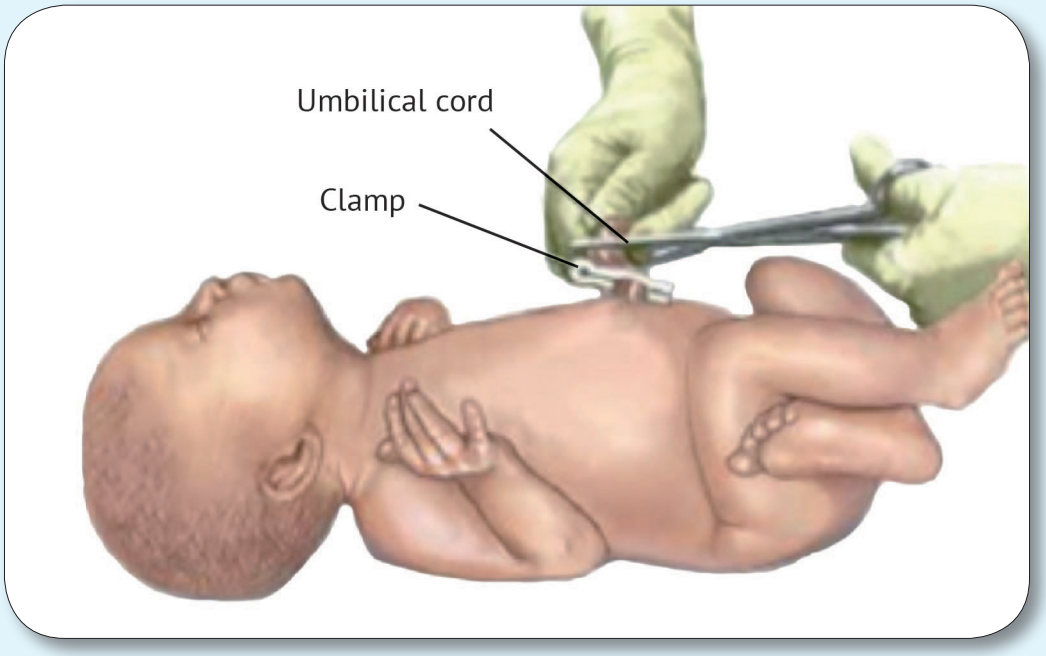
Companions to Management Series

CORD CARE

The Welfare of Women

Cord Care

Appropriate handling and care of the umbilical cord – both at the time of delivery and thereafter is essential to optimise the health of the newborn. 'Deferred' or "delayed" cord clamping is currently recommended, and it involves awaiting at least 1 minute after delivery (typically between 1- and 3-minutes following birth) prior to the application of the umbilical cord clamp. Delayed cord clamping is currently recommended both during term and pre-term gestation not only to ensure adequate blood volume, but also to ensure a gradual postnatal transition of the neonate. Immediate cord clamping may be required if immediate neonatal resuscitation is required at birth.



https://www.slideserve.com/jewicebosell/how-to-cut-the-umbilical-cord-of-a-baby

Clinical Relevance

Deferred or delayed umbilical cord clamping can contribute to positive outcomes for infant health as it allows blood from the placenta to continue to be transferred to the baby ('placental transfusion'), while the umbilical vessels remain patent after delivery. It is recommended by the World Health Organization for all births, while starting initial basic care [stimulating, drying, maintaining warmth]; unless the neonate is asphyxiated and requiring resuscitation, in which case immediate cord clamping is more appropriate. While conclusive data is perhaps lacking, the health advantages of deferred cord clamping to preterm babies seem even greater.

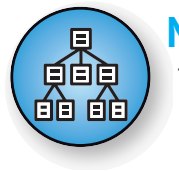
Neonatal Impact of Deferred Cord Clamping (1–3 mins after delivery)	
Benefits	**Risks**
↓ iron deficiency anaemia at 3-6 months of age	↑ need for jaundice phototherapy
↓ need for blood pressure support, blood transfusion, surfactant, and mechanical ventilation in pre-term infants	
↓ necrotising enterocolitis and intraventricular haemorrhage in pre-term infants	

The slightly increased risk of neonatal jaundice with deferred cord clamping has led some to suggest that equipment and knowledge for jaundice phototherapy should be available in places where such management is practiced routinely.

Deferred cord clamping has not been associated with increased bleeding at the time of delivery and is considered safe for the mother.

Sepsis is a leading cause of mortality in the first month of life. The newly cut umbilical cord can act as a pathway for pathogens and is an obvious route of infection. Therefore, strict aseptic precautions should be taken during clamping, cutting and ligation of the umbilical cord at birth.

Post-delivery care of the umbilical cord differs widely across countries and cultures, with some believing that applying certain substances to the cord is essential for the future health and wellbeing of the baby. Certain traditional and cultural practices are known to be harmful in the short term, increasing the risk of bacterial or viral infection. These may include application of ointments, leaves and other materials on the umbilical stump. Encouraging parents to keep their baby's umbilical cord clean and dry (with or without the aid of chlorhexidine, depending upon healthcare setting) is essential – although the discussion of cord care must be done sensitively in view of these existing cultural beliefs.



Management Algorithm

This advice applies to both vaginal and Caesarean delivery.

At Delivery

1. **Defer clamping of the umbilical cord for between 1 and 3 minutes after delivery**

   While the cord remains pulsatile, blood can flow from the placenta to the baby. Most of this process is normally completed after 3 minutes.

   - Active management of the third stage of labour (including using a uterotonic agent) can still take place – this does not necessitate immediate cord clamping
   - Gravity plays a significant role in the transfer of blood from the placenta; therefore, the baby should not be held up above this level until the cord is clamped; nursing it on the mother's abdomen or chest appears not to impact the blood flow and is therefore appropriate
   - Wherever the baby is placed, avoid stretching the cord
   - While undertaking deferred cord clamping, make use of the time by stimulating and drying the baby; maintain its warmth with wrapping or skin-to-skin contact, and place a hat
   - If further resuscitation is required beyond these basic measures and it is logistically possible for the team to do this efficiently with an intact cord, then this is preferable; otherwise, immediate cord clamping is indicated, to allow the baby to be moved
   - While deferred cord clamping is not associated with increased rates of post-partum haemorrhage overall, it may be preferable to clamp the cord immediately (and consider options for delivering the placenta) if excessive bleeding is observed after birth. This will enable the clinicians to focus on the mother to avoid haemodynamic instability

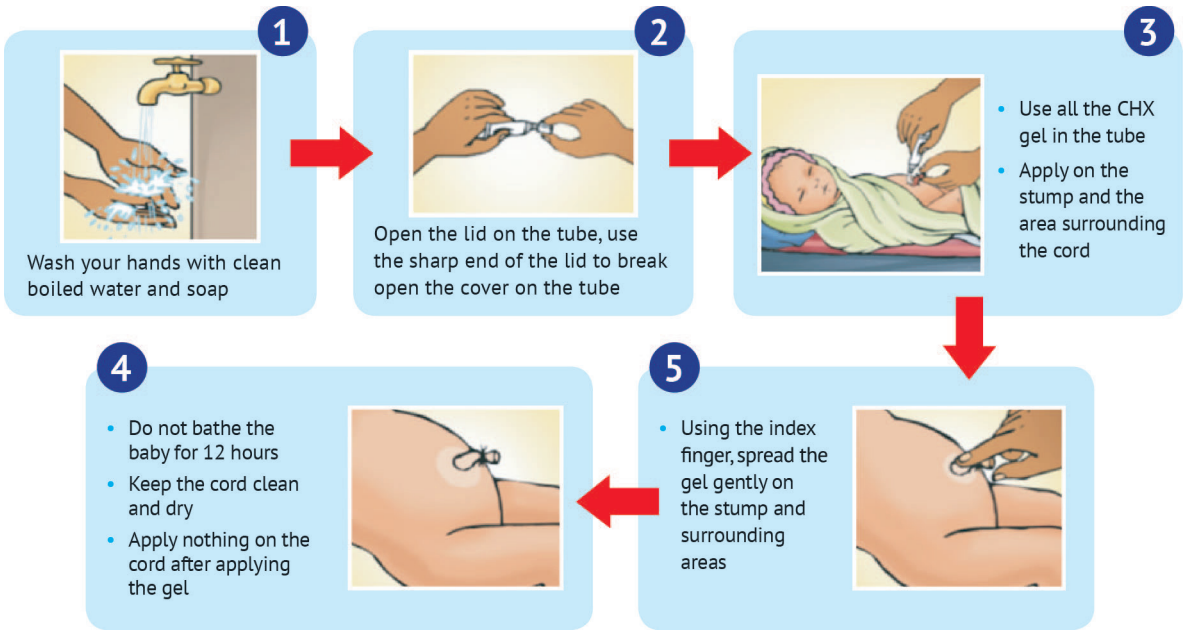
2. Aim to reduce the risk of infection when clamping and cutting the cord

Use sterile equipment and gloves, as neonatal tetanus can occur when unclean instruments are used to clamp and cut the cord, or unclean material covers the stump

Ongoing Care of the Cord

1. If delivery occurs (i) in a healthcare facility, or (ii) at home in an area of low neonatal mortality
   - Clean, dry cord care is recommended
   - Encourage parents to keep the stump clean and dry; they need not apply anything to the cord other than clean water

   If delivery occurs at home in an area of high neonatal mortality (>30 per 1000)
   - Daily chlorhexidine (CHX) application to the umbilical cord stump is recommended during the first week of life, with application on the first day of life the most important



https://www.babyandyoucenter.com/caring-for-your-newborns-umbilical-cord-stump/

- Educate the parents on how to manage the cord, what to expect, and when to seek input from a healthcare professional. They should:
  - Inspect the stump regularly to ensure that it is healing, and remains clean and dry
  - Always wash hands before touching the cord to reduce the risk of introducing an infection
  - Ensure that nappies do not rub on the cord stump – fold them down at the front if necessary
  - Seek further input if it remains intact beyond 3 weeks from delivery – it normally falls off after 1–2 weeks
  - Never attempt to pull or detach the stump; allow it to fall off spontaneously
  - Be alert for signs of infection – redness, swelling, pus or blood, fever, poor feeding, crying when the stump is touched – and seek early healthcare review

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