european standards of care for newborn health

Topic Expert Group: **Care procedures**

Mouth care

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Target group
Infants and parents

User group
Healthcare professionals, neonatal units, hospitals, and health services

Statement of standard
Appropriate mouth care is given to infants according to their individual needs and to minimise aversive responses.

Rationale
The mouth is important for eating, drinking, taste, breathing, immune defence, speech, and communication. The principle objective of mouth care is to decrease the risk of infections and to give comfort. (1,2) Oral hygiene is an integral part of total care. Assessment and planned interventions can help to prevent, minimise or maintain oral cavity health. If mouth care is not done in the right way, it also may be a negative experience. There are few studies of neonatal mouth care for preterm infants.

To enable appropriate mouth care, a thorough assessment of the oral cavity has to be done before beginning the procedure to ensure individualised care for the infants, depending on their actual state. (2)

Mouth care using colostrum may additionally prevent infections. (2) Colostrum is beneficial for every newborn infant, especially for preterm infants, whose oral reflexes (sucking, swallowing, gag reflex) are not yet developed, including those not yet taking oral feeds, because it allows the sensation and taste of colostrum and mother's milk. (2,3)

Mouth care for preterm and ill infants is more than a hygienic precaution, or a nursing task. It is an opportunity for the parents to bond with their infant, and a way for the infant to sense their parents' presence from the start. Infants and their parents communicate mainly through touch, smell and taste. If the parents are able to perform basic care for their infant, this encourages their bonding. (4) (see TEG Infant- and family-centred developmental care)

Benefits

Short-term benefits
- Improved sensory experience (5)
- Reduced risk of skin injury, and local and systemic infections (1,2,6,7)
- Improved parental confidence (4) (see TEG Infant- and family-centred developmental care)

Long-term benefits

- Reduced risk of feeding disorders due to negative experiences during neonatal mouth care (8)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family		
1. Parents are informed by healthcare professionals about the positive effects of optimal mouth care with breast milk.	B (High quality)	Patient information sheet
2. Parents are encouraged by healthcare professionals to take over mouth care.	B (Moderate quality)	Parent feedback
For healthcare professionals		
3. A unit guideline on mouth care is adhered to by all healthcare professionals.	B (High quality)	Guideline
4. Colostrum is used for mouth care in infants. (1,2,6,7)	A (High quality)	Guideline
5. Training on oral sensory development (8) and importance of mouth care is attended by all responsible healthcare professionals. (1,4) (see TEG Infant- and family-centred developmental care, see TEG Education & training)	A (Moderate quality) B (High quality)	Training documentation
For neonatal and paediatric unit		
6. A unit guideline on mouth care is available and regularly updated.	B (High quality)	Guideline
7. Colostrum is made available for mouth care. (9) (see TEG Nutrition)	B (Moderate quality)	Guideline
8. Soft materials are used to avoid negative oral sensory stimulation. (5,8)	A (Moderate quality)	Guideline
For hospital		
9. Material and equipment is provided.	B (High quality)	Audit report
For health service		
10. Training on mouth care is included in the Curricula of the healthcare professional education.	B (High quality)	Training documentation

Where to go – further development of care

Further development	**Grading of evidence**
For parents and family	
N/A	
For healthcare professionals	
• Develop a mouth care assessment tool. (2)	A (Moderate quality)
For neonatal and paediatric unit	
N/A	
For hospital	
N/A	
For health service	
N/A	

Getting started

Initial steps
For parents and family
• Parents are verbally informed by healthcare professionals about optimal mouth care. • Parents are supported by healthcare professionals to be involved within the mouth care of their infant or to do it by themselves. (4)
For healthcare professionals
• Attend training on oral sensory development (8) and importance of mouth care. • Invite and support parents to perform mouth care or to comfort the infant during mouth care. (4)
For neonatal and paediatric unit
• Develop and implement a unit guideline on mouth care. • Develop information material on optimal mouth care for parents.
For hospital
• Support healthcare professionals to participate in training on oral sensory development (8) and importance of mouth care.
For health service
N/A

Description

To enable appropriate mouth care, a thorough assessment of the oral cavity has to be done before beginning the procedure to ensure individualised care for the infants, depending on their actual state. (2)

Colostrum mouth care is beneficial for every newborn infant, especially for preterm infants, whose oral reflexes (sucking, swallowing, gag reflex) are not yet developed, and for those nil by mouth, because it allows the sensation and taste of colostrum and mother's milk. (2,3)

Method for mouth care; step by step (2)
Healthcare professionals should plan for mouth care to occur regularly, most commonly it will be given around the same time that 'cares' are performed. However, the frequency of mouth care should be individualised for each baby and based on their behavioural cues, sleep state and tolerance of handling. A frequency of at least 6-8 hourly will be appropriate for most babies.

Preparation:

- Invite parents to support their baby or do the mouth care together with the parents.
- Gather the required equipment together
    - Sterile water
    - Fresh colostrum (expressed breast milk, donated milk) 0.2-0.3mls ideally drawn up into a separate syringe. Due to the current knowledge of the many beneficial properties of colostrum, fresh maternal colostrum –when available- should always be the first choice for performing mouth care. Second choice (when available) should be maternal breast milk. All babies on the neonatal unit should be considered eligible for mouth care as studies so far have shown that coating the baby's mouth with colostrum is safe, even for the sickest babies, and smallest babies, including those who are nil by mouth or requiring ventilation. Mouth care with colostrum or breast milk (when available) should be performed at least once in a 12-hour period and introduced within 48hours of birth.
    - Liquid paraffin or soft Vaseline (single patient use, used only for mouth.)
- Perform hand hygiene and apply non sterile gloves.
- If the baby requires suction, this should be carried out before mouth care is performed.

Procedure:

- During mouth care, staff should be observing the condition of the mouth, lips and tongue closely, in order to make a thorough oral assessment.
- Take (a sterile) gauze swab, dip into the bottle of sterile water and squeeze to remove excess water. Wipe the baby's lips to remove dry skin or debris. Do not 'force' mouth care onto a sleeping baby, or a baby that is unwilling to open its mouth. The baby is likely to be more receptive on another occasion, and it is important that the experience is positive, helping to reduce the risk of oral aversion, for babies that already have many negative oral experiences.
- Dispose of the swab, and clean with another if necessary, never re-dip a used swab into the sterile water bottle, as this will contaminate the water with bacteria and/or mouth debris.
- Soak the cotton bud with the colostrum and gently roll the bud along the lips.
- If the mouth cavity is big enough also roll the applicator around the gum line and over the tongue the aim being to coat the buccal cavity in a layer of milk.
- If the lips are dry a thin layer of yellow soft paraffin or liquid paraffin can be applied directly to the lips, using a cotton tipped applicator or a gloved finger. If a baby is being nursed under phototherapy then soft yellow paraffin and liquid paraffin should NOT be applied to the baby's lips, due to the low but possible risk of causing burning to the skin, when exposed to the phototherapy lights.

After:

- Discard all used waste items after the procedure, including any excess milk, in order to prevent bacterial colonisation and the introduction of infection.
- Ensure equipment is restocked and left in the appropriate place, clean and tidy.
- Document the findings of oral assessment and intervention in the infant's charts and review frequency of oral care as necessary. What fluid to use for oral care
- Assessment of the mouth should be documented using a mouth assessment tool

Source

1. Fernandez Rodriguez B, Peña Gonzalez L, Calvo MC, Chaves Sanchez F, Pallas Alonso CR, de Alba Romero C. Oral care in a neonatal intensive care unit. J Matern-Fetal Neonatal Med Off J Eur Assoc Perinat Med Fed Asia Ocean Perinat Soc Int Soc Perinat Obstet. 2017 Apr;30(8):953–7.

2. Thames Valley Neonatal ODN Quality Care Group. Guideline Framework for Mouth Care on the Neonatal unit [Internet]. [cited 2018 May 22]. Available from: https://www.networks.nhs.uk/nhs-networks/thames-valley-wessex-neonatal-network/documents/guidelines/mouth-care-guideline

3. Lee J, Kim H-S, Jung YH, Choi KY, Shin SH, Kim E-K, et al. Oropharyngeal colostrum administration in extremely premature infants: an RCT. Pediatrics. 2015 Feb;135(2):e357-366.

4. Davidson J, Aslakson R, Long A, et. al. Guidelines for Family-Centered Care in the Neonatal, Pediatric, and Adult ICU. Crit Care Med. 2017;45(1):103–28.

5. Kuhn P, Astruc D, Messer J, Marlier L. Exploring the olfactory environment of premature newborns: a French survey of health care and cleaning products used in neonatal units. Acta Paediatr Oslo Nor 1992. 2011 Mar;100(3):334–9.

6. Schaal B, Hummel T, Soussignan R. Olfaction in the fetal and premature infant: functional status and clinical implications. Clin Perinatol. 2004 Jun;31(2):261–285, vi–vii.

7. Gephart SM, Weller M. Colostrum as oral immune therapy to promote neonatal health. Adv Neonatal Care Off J Natl Assoc Neonatal Nurses. 2014 Feb;14(1):44–51.

8. Rommel N, De Meyer A-M, Feenstra L, Veereman-Wauters G. The complexity of feeding problems in 700 infants and young children presenting to a tertiary care institution. J Pediatr Gastroenterol Nutr. 2003 Jul;37(1):75–84.

9. Leeds Teaching Hospital Trust. The use of colostrum and expressed breast milk for oral care, in neonates who are unable to be orally fed on the Neonatal Unit. 2010.

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