



*Topic Expert Group: Nutrition*

**Providing mother's own milk (MOM) for preterm and ill term infants**

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*Target group*

Preterm and ill term infants, and parents

*User group*

Healthcare professionals, neonatal units, hospitals, and health services

*Statement of standard*

Mothers are encouraged and supported to provide their own breast milk for their infant.

*Rationale*

The promotion and provision of mother's own milk (MOM) is a convincing strategy for reducing the risk of necrotising enterocolitis (NEC), sepsis and the associated costs, and improving brain, visual and cognitive development in preterm infants. (1–5)

Although the rates of human milk feedings for preterm infants have increased over the last decade, breast-pump dependant mothers of preterm infants face specific barriers to the initiation and maintenance of sufficient lactation. (6) Similarly, term infants benefit from the provision of MOM. Implementation of multidisciplinary lactation teams for education and advocacy of healthcare professionals, mothers and families as well as accessible milk pumps and storage space improve milk volume and infant nutrition. (7,8)

Unfortified human milk does not fully provide for the unique nutritional needs of the very preterm infant. Fortification of MOM can correct inadequate protein-to-energy and mineral-to-protein ratios, and micronutrient supply. (9) The recommended supply of docosahexaenoic acid (DHA) for very low birth weight infants can be met through MOM if maternal DHA intake is markedly increased. (10)

*Benefits*

*Short-term benefits*

- Reduced prematurity related morbidity (less feeding intolerance, decreased risk of serious morbidity, i.e. NEC and sepsis) (1–3)
- Reduced healthcare costs (2,3)

*Long-term benefits*

- Improved neurodevelopmental outcomes (4,5)



### *Components of the standard*

<b>Component</b>	<b>Grading of evidence</b>	<b>Indicator of meeting the standard</b>
<b>For parents and family</b>		
1. Parents are informed by healthcare professionals about the benefits of mother's own milk (MOM) and encouraged and supported to provide MOM. (see TEG Care procedures)	A (Low quality) B (High quality)	Guideline, patient information sheet <sup>1</sup>
<b>For healthcare professionals</b>		
2. A unit guideline on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation and its appropriate documentation, is adhered to by all healthcare professionals.	B (High quality)	Guideline
3. Training on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation, is attended by all responsible healthcare professionals. (see TEG Care procedures)	B (High quality)	Training documentation
<b>For neonatal unit</b>		
4. A unit guideline on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation and its appropriate documentation, is available and regularly updated.	B (High quality)	Audit report, clinical records, guideline
5. Multidisciplinary infant nutrition and lactation teams to provide education and advocacy for MOM provision are available.	A (Low quality)	Audit report
6. Timely access to effective and efficient breast pumps, containers, pump kits	A (Low quality)	Audit report, guideline,

<sup>1</sup> The TEG Nutrition very much supports the need of good communication with families and regular sharing of key information, but it is not in favour of sharing information on each standard by a „parent information sheet“, which is term chosen by the Chair Committee. In our view, sharing multiple parent information sheets bears the risk of overloading families with a plethora of written information during a stressful time period, which may not be very helpful. We suggest to consider other means of sharing information.



and breast shields for mothers of preterm infants is provided.

parent feedback

**For hospital**

7. Training on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation, is ensured.	B (High quality)	Training documentation
8. Sufficient resources (staff, equipment including fridges and freezers, and space for milk expression) are provided.	A (Low quality) B (High quality)	Audit report

**For health service**

9. A national guideline on infant nutrition, including the importance and provision of MOM, fortification, and supplementation is available and regularly updated.	B (High quality)	Guideline
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*Where to go – further development of care*

Further development	Grading of evidence
For parents and family N/A	
For healthcare professionals N/A	
For neonatal unit N/A	
For hospital	
<ul style="list-style-type: none"> <li>Review impact of establishing and increasing human milk usage and potential cost saving from decreased use of parenteral nutrition.</li> </ul>	A (Low quality)
For health service N/A	

*Getting started*

Initial steps
For parents and family
<ul style="list-style-type: none"> <li>Parents are verbally informed by healthcare professionals about the benefits of mother's own milk (MOM) during pregnancy and after delivery.</li> </ul>
For healthcare professionals
<ul style="list-style-type: none"> <li>Attend training on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation.</li> </ul>



#### For neonatal unit

- Develop and implement a unit guideline on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation and its appropriate documentation.
- Develop information material on the importance and provision of MOM as well as the initiation of lactation for parents.

#### For hospital

- Support healthcare professionals to participate in training on infant nutrition, including the importance and provision of MOM as well as the initiation and maintenance of lactation.
- Provide facilities and equipment for milk expression.

#### For health service

- Develop and implement a national guideline on infant nutrition, including the importance and provision of MOM, fortification, and supplementation.

### *Description*

The use of mother's own milk (MOM) for preterm and ill term infants should be encouraged. Special emphasis should be placed on the early lactation period during the first two weeks after delivery when the mammary gland transits from secretory differentiation to secretory activation. Special guidance of the lactating mother with regard to pumping strategies to facilitate breastfeeding should be implemented in the daily routine on the NICU. Mothers should also be informed about the physiology of lactation to set their expectations; in particular they need to understand the importance of small amounts of colostrum (see TEG Care procedures) and that they should not expect to express large volumes of milk in the early days. Protocols for the safe handling are helpful to preserve the high quality of mother's own milk. Fortification of own mother's milk and nutrient supplementation of the lactating mother will further improve the nutritional value of MOM for the preterm infant.

### *Source*

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4. Vohr BR, Poindexter BB, Dusick AM, McKinley LT, Higgins RD, Langer JC, et al. Persistent beneficial effects of breast milk ingested in the neonatal intensive care unit on outcomes of extremely low birth weight infants at 30 months of age. *Pediatrics*. 2007 Oct;120(4):e953-959.



5. Vohr BR, Poindexter BB, Dusick AM, McKinley LT, Wright LL, Langer JC, et al. Beneficial effects of breast milk in the neonatal intensive care unit on the developmental outcome of extremely low birth weight infants at 18 months of age. *Pediatrics*. 2006 Jul;118(1):e115-123.
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10. Koletzko B. Human Milk Lipids. *Ann Nutr Metab*. 2016;69 Suppl 2:28–40.

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*Lifecycle*

5 years/next revision: 2023

*Recommended citation*

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