

Topic Expert Group: Nutrition

Establishment of enteral feeding in preterm infants

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Target group

Preterm infants and parents

User group

Healthcare professionals, neonatal units, hospitals, and health services

Statement of standard

Early enteral feeding is established, based on a standard protocol, preferably with mother's own breast milk.

Rationale

The goal is to provide an appropriate nutrient supply, support gut adaptation and health, and reduce the risk of growth faltering.

Early enteral feeds are an important component to establishing good nutrition, particularly with mother's own breast milk (MOM) (see Nutrition). If MOM is not available then either donor human milk (DHM) or formula may be used. There are only limited data from high-quality trials to determine the exact day on which this should be started, but Cochrane reviews support the conclusion that enteral nutrition should be initiated within the first four days of life. (1–3) In high-risk groups there is no advantage to delaying the first feed to day six, compared to day two, while such delays increase the risk of regaining birthweight later and remaining dependant on parenteral supply for longer, with associated risks such as infections. (4) Therefore, recent recommendations advise to start minimal enteral feeding in very preterm infants as soon as possible after birth and no later than within 48 h of age. (5) When a supply of MOM has been established, e.g. at around day 2-3, the amounts of enteral feeds may be increased in stable preterm infants. Advancing the amount of enteral feeding by 30 ml/kg bodyweight is feasible, achieves full enteral feeding earlier and does not induce adverse effects when compared to slower increments. (6) Faster increases are associated with shorter duration of parenteral nutrition, with its associated risks, while no difference in long-term outcome was shown. (7) Feeding advancement at a daily rate of 18-30 ml/kg is advised for very low birthweight infants. (5) Routine gastric residual evaluation has no proven benefit but leads to a marked delay in reaching full enteral feedings and more catheter related infections. (8) The routine checking of gastric residuals is discouraged, and this should be incorporated into standardised feeding guidelines. (5)

Benefits

Short-term benefits

- Reduced duration of parenteral nutrition and associated complications (5) and costs (consensus)
- Reduced risk of serious morbidities such as sepsis, or necrotising enterocolitis with human milk (9)
- Improved nutritional status (including growth) at discharge (consensus)

Long-term benefits

- Improved neurodevelopmental and other health outcomes (10–12)

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 importance of early enteral feeding and they are encouraged to provide breast milk (see Nutrition and Care procedures).	A (Low quality) B (High quality)	Patient information sheet ¹
For healthcare professionals		
2. A unit guideline on infant nutrition, including early enteral feeding, preferably with mother's own milk (MOM) is adhered to by all healthcare professionals (see Nutrition).	A (Low quality) B (High quality)	Guideline
3. Training on infant nutrition, including early enteral feeding, preferably with MOM, is attended by all responsible healthcare professionals.	B (High quality)	Training documentation
For neonatal unit		
4. A unit guideline on infant nutrition, including early enteral feeding, preferably with MOM, is available and regularly updated.	B (High quality)	Guideline
5. Units must have equipment available to support lactation 24 hours/day and staff who are able to support mothers in its use.	B (high quality)	Unit policy
6. Adherence to the unit guideline is monitored.	A (Low quality)	Audit report
For hospital		
7. Training on infant nutrition, including early enteral feeding and lactation support is ensured.	B (High quality)	Training documentation

¹ 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.

For health service

8. A national guideline on infant nutrition, including early enteral feeding, preferably with MOM, 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

N/A

For health service

- Support research to investigate the optimum starting day and rate of advancement of feeds. A (Low quality)

Getting started

Initial steps

For parents and family

- Parents are verbally informed by healthcare professionals about the importance of enteral feeding and breast milk.

For healthcare professionals

- Attend training on infant nutrition, including the importance of early enteral feeding, preferably with mother's own milk (MOM).

For neonatal unit

- Develop and implement a unit guideline on infant nutrition, including early enteral feeding, preferably with MOM.
- Develop information material for parents on early enteral feeding, preferably with MOM.
- Develop a nutrition support team.

For hospital

- Support healthcare professionals to participate in training on infant nutrition, including early enteral feeding, preferably with MOM.

For health service

- Develop and implement a national guideline on infant nutrition, including early enteral feeding, preferably with MOM.

Source

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3. Morgan J, Bombell S, McGuire W. Early trophic feeding versus enteral fasting for very preterm or very low birth weight infants. *Cochrane Database Syst Rev*. 2013 Mar 28;(3):CD000504.
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Lifecycle

3 years/next revision: 2025

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