**Clinical Practice Guideline**
**Guideline coverage includes NICU KEMH, NICU PMH and NETS WA**

# Enteral Feeding: Initiation and Progression

**This document should be read in conjunction with the Disclaimer**

Breast milk is the preferred feed. Consent for pasteurised donor human milk (PDHM) can be sought for all neonates ≤ 32 weeks gestation and/or ≤ 1500grams where breast milk is unavailable or mothers choose not to breastfeed. Other infants with a risk of feed intolerance will be considered for PDHM on an individual basis by Consultant/SR. For further information refer to Pasteurised Donor Human Milk (PDHM) guideline or Perron Rotary Expressed Milk (PREM) Bank .

Ready to use formula is used when neonates are not receiving breast milk or pasteurised donor milk. Feeding is by breastfeed, bottle-feed, intermittent or continuous gavage feed.

**Enteral Nutrition** should be commenced and gradually increased as early as possible in the presence of clinical stability. Infants who are haemodynamically unstable or unstable with sepsis normally have feeds withheld.

**Table 1 - Standardised Enteral Feeding Schedule**

| Birth Gestation | Day 1 Of Feeding If EBM Or PDHM Available | Grading Up |
|---|---|---|
| **< 26 Weeks** | ≤ 10 mL/kg/d (i.e. 1-2 mL/kg 4 to 6 hourly) then ≤ 20 mL/kg/d (i.e. 1-2 mL/kg 2 hourly), then progress → | Increase by 20-25 mL/kg/d |
| **26 To < 32 Weeks** | ≤ 20 mL/kg/d (i.e. 1-2 mL/kg 2 hourly), then progress → | Increase by 20-25 mL/kg/d |
| **> 32 Weeks** | 60 mL/kg/day maximum if stable, then progress → | Increase by 30-35 mL/kg/d |

## Key Points

- **Sepsis**: In unstable patients with sepsis, consider withholding feeds until 24 to 48 hours of antibiotic therapy is completed, the blood pressure is stable without inotropes or colloidal support, and respiratory assistance is back to the baseline levels before clinical deterioration occurred.
- **Blood Transfusion**: In infants thought to be at high risk of NEC, consideration may be given to ceasing feeds for 4 hours prior to giving a blood transfusion and to resuming feeds 4 hours after its completion. If feeds are ceased, replacement IV fluids may be required.
- **PDA**: Tolerance of small feeds is not compromised by Indomethacin; small feeds may be continued during Indomethacin therapy for PDA.
- **NEC (> Stage II)**: Feeds are withheld for a minimum of 7 days.

## Early Trophic Feeds

Early trophic feeds maintain gut integrity and are encouraged for all infants when EBM or PDHM is available. If unable to grade up feeds, consider trophic feeds of **≤10 mL/kg/d** (i.e. 1-2 mL/kg 4 to 6 hourly).

When early feeds begin all infants < 32 weeks gestation are to receive 0.2 mL EBM/PDHM (in addition to ordered feed amount) orally with each feed. Infants on continuous milk feeds are to receive 0.2 mL of milk 2 hourly. This is to continue until suck feeds commence.

## Frozen V Fresh Breast Milk (KEMH)

All preterm infants are to receive breast milk preferably in the order in which it is expressed. This ensures that all infants receive the nutritional and immunological benefits of colostrum and early milk. For most infants, this milk will have been frozen. Early milk has higher protein concentration and freezing milk may reduce or eliminate CMV. Fresh milk can be used if frozen milk (mother's own) is not readily available and as breastfeeds are introduced.

## Breast Milk Fortification

**Human milk is usually fortified for infants with gestational age < 35 weeks.**

Human milk fortifier may be added once enteral milk intakes of 100 mL/kg/day are achieved. Refer to Milk Room: Breast Milk Fortification and Preterm Formula.

## Formula

When EBM and/or PDHM are not options, infant formula is the only choice. When parental permission has been given for formula:

| | |
|---|---|
| **< 35 Weeks** | Commence as per Table 1 using Term Formula initially and progress to Preterm Formula as tolerated. |
| **> 35 Weeks** | Use Term Formula (Preterm or an enriched Term Formula may be required for some infants - referral to the dietitian is recommended) |

## Hypoglycaemia

Refer to Hypoglycaemia guideline.

## Term Neonates

Breastfeeding is promoted and actively encouraged for all neonates. The first breastfeed should be offered within the first few hours after birth if no contraindications. Term formula may be required if breast milk is unavailable. If judged appropriate by the Neonatologist, near term and term infants (≥ 36 weeks), could commence on full feeds ± breastfeeding if appropriate.

Also refer to O&G Clinical Guideline - Newborn Feeding.

## Feed Intolerance

Refer to Feed Intolerance guideline.

## References


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## Related WNHS policies, procedures and guidelines

Neonatology Clinical Guideline - Pasteurised Donor Human Milk (PDHM)
Neonatology Clinical Guideline - Milk Room: Breast Milk Fortification and Preterm Formula
Neonatology Clinical Guideline - Hypoglycaemia
Neonatology Clinical Guideline - Feed Intolerance
KEMH O&G Clinical Guidelines Section B - Newborn Feeding
http://kemh.health.wa.gov.au/services/PREM_Bank/index.htm

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