

Dose of own mother's milk (OMM)

What is dose of OMM?

Dose of OMM refers to the proportion (%) or amount (ml/kg/day) of oral feeds that is comprised of own mother's milk (OMM).¹

For prematurely-born infants it should be calculated for specific periods of time:

- Each day of hospitalisation
- Critical periods of:
 - Days 0–14 and 0–28 post-birth

Dose of OMM is a more accurate quality measure than rates of ever receiving OMM or receiving OMM at time of discharge.

Why is dose of OMM important?

Own mother's milk (OMM) is a medical intervention in the NICU offering superior benefits over pasteurised donor human milk (DHM) and bovine formula.²

A dose-response relationship exists between the amount of OMM received by prematurely-born infants and the risk of clinical morbidities.

Higher doses of OMM (and the avoidance of bovine formula) are low-cost interventions that reduce the risk of:¹⁻¹⁰

Necrotising enterocolitis (NEC), late onset sepsis, bronchopulmonary dysplasia (BPD), retinopathy of prematurity (ROP) and prolonged hospitalisation.

How to implement?

Develop / revise protocols that:

- | | | |
|---|---|--|
| <input type="checkbox"/> Ensure hospital feeding logs define the relative composition and volume of each feed OMM:DHM:Formula | <input type="checkbox"/> Regularly educate staff on the value of optimising the dose and exposure to OMM for prematurely born infants | <input type="checkbox"/> Support early and frequent milk expression for mothers to initiate and build their milk supply |
| <input type="checkbox"/> Document the dose of OMM per infant: <ul style="list-style-type: none"> <input type="checkbox"/> % and amount of OMM over each day of hospitalisation <input type="checkbox"/> Exclusive human milk (OMM/DHM) over days 0–14 <input type="checkbox"/> Average dose (ml/kg/day) OMM over days 0–28 | <input type="checkbox"/> Support parental discussions on the importance of the dose of OMM for their infant | <input type="checkbox"/> Facilitate the use of DHM as a bridge to avoid bovine formula until maternal milk supply is established |

How to audit?

Strategies to measure best practice include auditing:

- Average feed composition OMM:DHM:Formula for each day of hospitalisation.
- Percentage of infants receiving 100% human milk (OMM/DHM) in the first 14 days.
- Percentage of infants receiving >50 ml/kg/day OMM (average daily dose) in the first 28 days.

Auditing records on a monthly basis:

- Highlights recent progress and can enhance motivation within the organisation to continue with quality improvement measures.
- Shows where changes are still required and allows for timely implementation of further education to staff for continuous improvements in clinical practice.
- Allows barriers to be identified and addressed.

References: 1 Bigger HR et al. J Perinatol. 2014; 34(4):287–291. 2 Meier P et al. J Pediatr. 2017; 180:15–21. 3 American Academy of Pediatrics - Section on Breastfeeding. Pediatrics. 2012; 129(3):e827–e841. 4 Hylander MA et al. Pediatrics. 1998; 102(3):E38. 5 Hylander MA et al. J Perinatol. 2001; 21:356–362. 6 Meinen-Derr J et al. J Perinatol. 2009; 29(1):57–62. 7 Patel AL et al. J Perinatol. 2013; 33(7):514–519. 8 Sisk PM et al. J Perinatol. 2007; 27(7):428–433. 9 Taylor SN et al. Breastfeed Med. 2009; 4(1):11–15. 10 Patel AL et al. Arch Dis Child Fetal Neonatal Ed. 2017; 102(3):F256–F261. 102(3):F256–F261.