Use of Donor Breast Milk in the Neonatal Unit

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The North West Neonatal Network (NWNODN) consists of 3 locality neonatal networks, Cheshire and Merseyside (CM) Lancashire and South Cumbria (LSC) and Greater Manchester (GM). This document has been agreed by C&M Clinical Effective Group (CEG) and can be adapted for local use.
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Definition

This guideline details the use of donor breast milk (DBM) in the neonatal setting. Use within the post-natal ward setting should be following discussion with infant feeding teams and the neonatal medical team and criteria for DBM use in a community setting is outwith the scope of this guideline.

Background

WHO recommends that LBW infants should be fed mother's own milk. When a mother's own breast milk is not available, the alternatives are either expressed breast milk from a donor mother or formula milk. Available evidence shows that compared with formula, donor human milk is associated with lower incidence of the severe gut disorder, necrotising enterocolitis, and other infections during the initial hospital stay after birth.

In preterm and low birth weight infants, feeding with formula compared with donor breast milk results in a higher rate of short-term growth but also a higher risk of developing necrotising enterocolitis. Limited data on the comparison of feeding with formula versus nutrient-fortified donor breast milk are available.

Donor breast milk (DBM) is a human body fluid and, as such, carries risks of transmission of infective agents. Donors are screened and the milk is pasteurised to minimise risk. Written consent must be obtained for the use of donor breast milk. Handling, testing, and documentation of the milk in the donor milk bank and specialist feed unit is carried out according to NICE Guidelines (2010). Donor breast milk will have a variable nutrient content as seen with maternal expressed breast milk and may not contain optimum nutrients for the growth of preterm infants. Additionally, it may be further compromised by heat treatment.

Action

Mother's own breast milk is the standard feed of choice for all newborn infants. Mum should be encouraged to initiate breastfeeding as soon as possible after baby's birth. In situations when breastfeeding cannot be initiated, mother should be encouraged to express breast milk and this should be provided to the baby.

Criteria for use of donor breast milk

Preterm babies (when maternal breast milk not available)

- Birth gestation <30 weeks gestation and/or birth weight <1.5kg, awaiting maternal expressed breast milk production
- DBM should not be routinely used for babies born between 30 and 37 weeks gestation unless there are risk factors as outlined below:
    - Intra-uterine growth retardation (IUGR), abnormal antenatal dopplers (babies born between 30 and 37 weeks gestation and/or birth weight 1.5 - 2kg)
    - For gut priming in sick preterm infants in the first week of life
    - Potential compromise with bowel - Short gut syndrome, post-NEC, post-surgical repair of Gastroschisis/Exomphalos

Term babies

Donor breast milk should only be used in term babies in the following situations:

- Temporary interruption of breastfeeding: e.g. maternal clinical status, caesarean sections under general anaesthesia
- Infants with a surgical condition affecting the function of the bowel

Any decision to use donor breast milk should be in discussion with the neonatal medical team and the infant feeding team where available.

Consent

Written consent should be obtained from the mother before using DBM as an enteral feed

Supplementation

- Fortification of DBM should only be considered when used in preterm infants <34 weeks corrected gestational age
- DBM should not be routinely fortified in infants with surgical conditions affecting the function of the bowel; fortification should only be following discussion with the surgical team.
- Vitamins / Folic acid / Iron, as per local guidance on nutritional supplementation

Criteria for stopping use of DBM

- Infant established on maternal breast milk
- Feeds weaned to preterm/term formula, after parental discussion

DBM should be weaned onto formula after 2 weeks of full enteral feeds in high risk babies and as soon as feasible in all other babies if the mother chooses to feed the baby on preterm formula. Continuing the baby on DBM beyond this should only be at the discretion of the attending Consultant and/or the neonatal nutrition team.

Weaning DBM to preterm formula

- Use ¼ of preterm formula on the 1st day of weaning
- Increase formula by ¼ of the total volume every day, to wean off DBM completely in 4 days

Storage and usage

- DBM should be stored as directed by the donor milk bank
- DBM can be kept in the freezer for 3 months, but not beyond the expiry date
- DBM must be used within 24 hours of removal from the freezer for defrosting
- Fortified DBM must be used within 6 hours from preparation

All service users of DBM should comply with the tracking procedures as outlined by the human milk bank.

References:

1. WHO. Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries. Geneva, World Health Organization; 2011
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3. Boyd CA, Quigley MA, Brocklehurst P. Donor breast milk versus infant formula for preterm infants: systematic review and meta-analysis. Archives of Disease in Childhood: Fetal and Neonatal Edition. 2007; 92:F169-F175.
4. Turner C, Dinning A & Rose C. Guideline for use of donor breast milk (DBM), Western Neonatal Network Guideline Group, South of England Specialised Commissioning Group. 2012
5. Turner C, Dinning A & Rose C. Guideline for the use of Donor Breast Milk, South West Neonatal Network Guideline Working Group. 2015
6. United Kingdom Association for Milk Banking (2014) 'Info for professionals' http://www.ukamb.org/info-for-hcps/
7. Wight NE. Donor human milk for preterm infants. Journal of Perinatology; 2001; 21(4): 249-53

Auditable Standards	
1	Term babies in the postnatal ward should not be given DBM routinely without review by the infant feeding team. Target 95%
2	Written consent should be obtained from the mother before using DBM as an enteral feed. Target 100%