Use of Donor Human Milk on the Neonatal Unit

For Use In:	Neonatal Intensive Care Unit (NICU), Maternity and Paediatric Department		
Search Keywords	Neonate, Donor Human Milk		
Document Author:	Susan Harris, Sophie Harvey		
Document Owner:	Women's and Children's services		
Approved By:	Neonatal Guidelines Group Approved by Clinical Guidelines Assessment Committee Chair's action. If approved by committee or Governance Lead Chair's Action; tick here ✓		
Ratified By:	Clinical Safety and Effectiveness Sub-Board		
Approval Date:	1st November 2023	**Date to be reviewed by:** This document remains current after this date but will be under review	1st November 2026
Implementation Date:	N/A		
Reference Number:	DHM – Id 9994		

Version History:

Version	Date	Author	Reason/Change
4	October 2023	Susan Harris – Staff Nurse, NICU	Leaflet removed as appendix to go through Patient Information Forum and be loaded as separate document. Consent removed for to go to Consent Group and again be loaded as separate document. Language changed from 'Donor Breast Milk' to 'Donor Human Milk'

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

This guideline was adapted from the Guidelines for the Use of Donor Human Milk on the Neonatal Unit at Imperial College Healthcare NHS Trust by the authors listed above on behalf of the Neonatal Guidelines Group and Maternity Guidelines Committee has agreed the final content. During its development it has been circulated for comment to Heads of Wards and Departments, The Breastfeeding Core Group and the Neonatal. Any comments received have been incorporated where appropriate into the document.

The following were consulted during the development of this document:

All NICU staff, Midwifery Infant feeding team

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g., changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to (Integrated Care System, Acute Collaborative, individual Trust); please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

Use of Donor Human Milk on the Neonatal Unit

Contents Page

Use of Donor Human Milk on the Neonatal Unit

Quick reference

Premature Infants	**More mature infants who fit these criteria:**
Babies <32 weeks and/or <1500g	Unstable ventilated babies
	Post major abdominal surgery/recovering from necrotising enterocolitis (NEC) / potential need for cardiac surgery
	Consistently Absent/ Reversed End Diastolic Flow on antenatal Doppler studies
	Preterm significantly Small for Gestational Age babies (< 2nd centile and < 34/40 gestation at birth.)
	Haemodynamically unstable babies who have required prolonged inotropic support.
	Hypoxic Ischaemic Encephalopathy (requiring total body cooling)
	In extraordinary circumstances the Infant Feeding Coordinators may request short term use of DHM for specific reasons. They will keep under review any mothers needing to supplement with DHM.
	Mothers' intention to provide an exclusive human milk diet but is experiencing a delay in establishing lactation, despite continued efforts and support with expressing. (Consider extending eligibility criteria to Paediatrics and Maternity once individual funding for DHM sourced / can NICU charge maternity / paediatrics for volumes of DHM used).

Use of Donor Human Milk on the Neonatal Unit

1. Introduction

The best milk for a baby is human milk.

Nurses, midwives, or neonatologists can take the lead equally in emphasizing the benefit of exclusive use of human milk for all babies and the particular importance of human milk for the 'at risk' baby. Good joint working and communication are encouraged.

Every effort should be made to support mothers to express their milk as soon as possible following delivery, ideally within the 2 hours. The medical and nursing staff looking after the baby should ensure this is communicated to the parents and the staff on the delivery suite and/or the postnatal ward and that on-going lactation support is provided.

The use of Donor Human Milk (DHM) should be considered for eligible infants where the mother has a shortfall in her milk supply. Full support for lactation should be on-going to enable her milk supply to be increased sufficiently to provide milk for her baby. The use of DHM should be time limited, with ongoing parental discussions and clinician's discretion, considering ongoing eligibility and individual circumstances.

The support of excellent expressing skills is implicit throughout the period of low milk supply. DHM should not be used in place of effective support to establish lactation, but to complement skilled help and act as a bridge until maternal own milk supply is established.

1.1 Rationale

To protect the culture of breast feeding on the neonatal unit, the Maternity Unit and paediatric department and to minimize both the short and long term risks associated with giving cow's milk protein to neonates.

1.2 Objectives

- To provide guidance as to which babies should be offered DHM within the neonatal unit, on the post-natal ward and within the paediatric department.
- To outline the transition from DHM to formula.
- To outline the use, safe storage and traceability of DHM.

1.3 Scope

This document gives staff working within the neonatal unit and the midwifery department clear guidance about the safe usage of DHM.

1.4 Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
DHM	Donor Human Milk
EBM	Expressed Breast Milk
NEC	Necrotising Enterocolitis

2. Responsibilities

- Band 7 Neonatal Nurse, lead for Baby Friendly Initiative and member of the neonatal infant feeding team-Review/update guideline. Ensure guideline is followed by the neonatal team
- Infant Feeding Coordinator for Midwifery-Review/update guideline. Ensure guideline is followed by the midwifery department

3. Policy Principles/ Services to be delivered

3.1 Potential Benefits

Formula fed very low birth weight babies are at significantly increased risk of NEC when compared with infants exclusively fed breast milk. Data suggests that donor human milk reduces the risk of necrotising enterocolitis by as much as 79%. Additional benefits from BAPM Framework DHM: less diseases such as Broncho-Pulmonary-Dysplasia, improved growth and weight gain, reduced length of hospital stay, long term cognitive and metabolic benefits. Improved maternal physical and mental health and wellbeing, improved chances of successfully breast feeding and reduced incidence of breast and ovarian cancer. Reduced long term costings to the NHS.

3.2 Potential Risks

DHM is a human body fluid and, as such, carries risks of transmission of infective agents. Donors are screened and the milk is pasteurized to minimize risk. Written consent must be obtained for the use of DHM. Handling, testing and documentation of the milk in the donor milk bank and specialist feed unit is carried out according to NICE Guidelines 2010.[2]

DHM 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. Despite heat-induced alterations to the bioactive components of human milk, pasteurized milk maintains a degree of bacteriostatic and immune-stimulating properties. Although diminished, the partially preserved biological activity likely contributes to the improved outcomes observed in preterm infants fed DHM compared to infant formula. (BAPM, 2022)

3.3 How to obtain DHM

Location	Telephone
The Hearts Milk Bank	Monday to Friday 9.30-17.30 01582 314130/ 01582 314131
Rosie Hospital	01223 256931 01223 274171
Queen Charlottes and Chelsea Hospital	020 33133559
Hellesdon Milk Hub	0300 365 1909

3.4 Which babies MAY be eligible for donor human milk?

For eligibility criteria, please see Table 1

In the event of supplies being limited for these babies, DHM will be allocated based on clinical need.

3.5 Consent for use of donor human milk (DHM)

The nurse, midwife or doctor caring for the baby should explain the rationale for using DHM. Written information for parents about donor milk is available in the DHM folder- Use of Donor Human Milk on the Neonatal Unit (NICU) (Trust Docs ID: 17017). Written consent should be obtained from the mother to give DHM to her baby. If she isn't within the hospital, then verbal consent can be obtained and then gain written consent when mum is available. The consent form must be kept in the baby's notes (Trust Docs ID: 22860)

3.6 Storage and Usage

DHM should be stored as directed by the donor milk bank

Milk can be kept in the freezer until it reaches its expiry date.

Milk should always arrive in a frozen state. This must be checked by the member of staff that receives the delivery. If it has started defrosting, then it needs to be refrigerated and used within 24 hours or discarded and the milk bank from where it came should be informed.

Milk must be used within 24 hours of removal from the freezer for defrosting. Milk should be defrosted in the refrigerator, or at room temperature for 2 hours if needed urgently.

3.7 Documentation and traceability

Each bottle of donor milk is labelled with a batch number to ensure traceability and an expiry date.

Once taken from the freezer the donor milk bottle should be labelled with the name and hospital number of the baby who is to receive it, and the date and time it is removed from the freezer.

A DHM log called the profoma must be filled in for every baby who is given DHM. When each bottle of DHM is removed from freezer, the batch number, the milk bank it came from, the date it is to be used and expiry date needs to be completed on this form. This form is then kept in the baby's notes.

A register is kept with the donor milk which needs to be completed each time a bottle is removed from the freezer. Information includes baby's name, hospital number and date removed.

DHM sourced from the Rosie Hospital comes with a form which needs completing and then to be placed in the folder that is kept with the donor humanmilk. The information from this is used to complete a register and a continuous audit for the usage of donor human milk. This form is then forwarded back to the Rosie hospital.

3.8 How long to use DHM

The use of DHM must be time limited based on ongoing eligibility and clinical need. Every effort must be made to support mother's lactation to enable her own milk supply to be increased and the use of DHM be discontinued.

In the event of persistent low milk supply despite on-going optimal lactation support, it would be reasonable to offer DHM until full enteral feeds are achieved. Longer use of DHM may be warranted in individual cases following parental discussion. If ongoing DHM is requested, a referral to Hearts Milk Bank for ongoing community supply of DHM is required.

3.9 Grading on to formula on NICU

Ideally support with DHM will coincide with lactation and growing volumes of maternal milk, allowing this to replace the need for DHM. In the event that there is an insufficient volume of maternal milk, further support with lactation must be offered.

Should the use of formula be required, the following grading plan should be used:

- Start with ¼ formula for 24 hours.
- Increase by ¼ every 24 hours as tolerated i.e., re-grading should take 3 days.
- If the baby shows any signs of intolerance to grading onto formula milk, then this process should be stopped and re-assessed.

3.10 Can we fortify DHM?

DHM can be fortified in the same way as mothers' own milk.

3.11 Babies Being Transferred to Other Units who are receiving DHM.

A clear feeding plan should be agreed between the referral and receiving units before transfer. If the hospital does accept babies on DHM then a small supply of DHM should be transferred with the infant. It is the responsibility of the receiving hospital to liaise with the Milk Bank for further supplies of milk as required.

3.12 Informal Milk Sharing (use of donor milk outside of a registered Milk Bank)

In recent years, increasingly, mothers who are unable to provide their own milk or have insufficient supply for their full term, healthy babies have come to use networks developed through the internet to obtain human milk. These connect them with mothers who wish to share or to sell their milk. Human milk, when shared outside milk banks that follow accepted guidelines, does not provide the same safety guarantees and the possibility of serious adverse consequences cannot be ruled out.

The main risks of sharing milk are that it is contaminated with pathogenic bacteria as a result of suboptimal collection, storage and transportation or that it contains viruses as a result of the mother having unknown infections which may be transmitted via the milk. These include viral infections such as HIV, Hepatitis or HTLV (Human T Lymphotropic Virus). In addition, the shared milk may contain medications taken by the mother as well as alcohol, nicotine, drugs and other contaminants.

Harmful bacteria ingested in large quantities through human milk may lead to severe infections including septicaemia. Viruses such as HIV and HTLV in human milk can cause serious illnesses, some of them manifesting several years after contamination.

Screening of donors, milk testing and appropriate pasteurization, as routinely done in human milk banks, greatly reduces the risks associated with sharing human milk.

If mothers choose to use human milk that is shared from an informal source, the health care professional should document in the baby's health care record that they have discussed the risks of this decision. They should discuss the points raised above and give a printed copy of this information to the parents- Use of Donor Human Milk on the Neonatal Unit (NICU) Trustdocs Id: 17017. If they make an informed choice to give human milk that has not been sourced through a recognized milk bank,this needs to be clearly documented in the baby's notes and the medical team overseeing the baby's care need to be informed.

4. References

1. Boyd CA, Quigley MA, Brocklehurst P (2007). Donor breast milk versus infant formula for preterm infants: systematic review and metanalysis. Archives of Disease in Childhood; 92: F169-F175.
2. Donor breast milk banks: the operation of donor breast milk bank services. National Institute for Health and Clinical Excellence (NICE) (http://guidance.org.uk/CG93).
3. Wight NE, Donor human milk for preterm infants. Journal of Perinatology; 2001; 21(4): 249-54.
4. King C, 'Preterm infants' In *Clinical Paediatric Dietetics 3rd Ed.* Shaw, V and Lawson, M. Oxford: Blackwell Publishing, 2007.
5. Abdelhamid AE, Chuang SL, Hayes P, Fell JM. In vitro cow's milk protein-specific inflammatory and regulatory cytokine responses in preterm infants with necrotizing enterocolitis and sepsis. Pediatric Research Journal. 2011 Feb;69 (2):165-9. doi: 10.1203/PDR.0b013e31820263e7.
6. Arslanoglu S, Moro GE, Bellù R, Turoli D, De Nisi G, Tonetto P, Bertino E Presence of human milk bank is associated with elevated rate of exclusive breastfeeding in VLBW infants. Journal of Perinatal Medicine 1-3 (Nov 2012) Lois DW Arnold (2006).
7. Global health policies that support the use of banked donor human milk: a human rights issue. International Breastfeeding Journal 2006, 1:26 doi:10.1186/1746-4358-1-26.
8 Lois DW Arnold (1999) Use of Banked Donor Milk in the United States, Building Block for Life. Pediatric Nutrition Practice Group, Volume 23 No. 1 Winter 1999.
9. Schanler RJ, Lau C, Hurst NM, and Smith EO. (2005) Randomised trial of donor human milk versus preterm formula as substitute for mothers' own milk in the feeding of extremely premature infants. Paediatrics, August 2005, vol, /is 116/2(400-6), 0031-4005; 1098-4275.
10. Douglas B. Tully, PhD, Frances Jones, RN, BScN, IBCLC, and Mary Rose Tully, MPH, IBCLC (2001) Donor Milk: What's in It and What's Not. J Hum Lact 17(2).
11. UNICEF Neonatal Course Handbook, Baby Friendly Initiative.
12. Untalan PB , Keeney SE, Palkowitz KH, Rivera A and Goldman AS.(2009) Heat susceptibility of interleukin-10 and other cytokines in donor human milk. Breastfeeding Medicine vol./is. 4/3(137-44), 1556-8342 (2009 Sep).
13. Bliss Charter (2011) Alternatives to maternal breastmilk, Standard 6.3.
14. The United Kingdom association for milk banking (UKAMB)

5. Audit of the process

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Number of babies who receive DHM	Yearly audit	Susan Harris	NICU	Yearly
Rational for use of DHM	Continuous audit	Susan Harris	NICU	Continuous
Consent form completed for each baby	Continuous audit	Susan Harris	NICU	Continuous
Proforma completed for each baby	Continuous audit	Susan Harris	NICU	Continuous

The audit results are to be discussed at relevant governance meetings (where possible note which meetings) to review the results and recommendations for further action. Then sent to (insert relevant committee or Sub-Board) who will ensure that the actions and recommendations are suitable and sufficient.

6. Appendices

Use of Donor Human Milk on the Neonatal Unit (NICU) - Parent Information leaflet- Trust Docs Id: 17017

Consent for Donor Human Milk (DHM) for your baby – Trust Docs ID: 22860

7. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	3	**Department**	NICU
Name of person completing form	Susan Harris	**Date**	22/8/2023

Equality Area	**Potential Negative Impact**	**Impact Positive Impact**	**Which groups are affected**	**Full Impact Assessment Required YES/NO**
Race	No	Yes		
Pregnancy & Maternity	No	Yes		
Disability	No	Yes		
Religion and beliefs	No	Yes		
Sex	No	Yes		
Gender reassignment	No	Yes		
Sexual Orientation	No	Yes		
Age	No	Yes		
Marriage & Civil Partnership	No	Yes		
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?				

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty.**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service.**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.