

Expressing Breastmilk in the Newborn Intensive Care Unit (NICU)

Guideline Responsibilities and Authorisation

Department Responsible for Guideline	NICU
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Target Audience	Nurses
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Guideline Review History

Version	Updated by	Date Updated	Summary of Changes
01	Robyn Hill	May 2019	New guideline as part of the NEC (Necrotising Enterocolitis) bundle of care
02	Robyn Hills	November 2022	3-yearly review

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1 Overview

1.1 Purpose

To guide NICU staff in the support of mothers to establish and maintain an expressed milk supply.

1.2 Scope

Te Whatu Ora Waikato staff working in NICU.

1.3 Patient / client group

Families whose babies are in NICU.

1.4 Background

- In the absence of a fully breastfed baby due to premature birth or sickness a mother will need to use alternative methods to establish and maintain a milk supply.
- To establish and maintain a milk supply a mother is required to start expressing within the first 6 hours post birth and establish a plan for regular expressing.
- Parents should be informed that human breast milk is the recommended best care for infants especially for fragile infants. Exclusive components within human milk promote the development of the immature immune system while reducing chronic inflammation, the primary challenge in fragile infants. It has been identified that bioactive compounds in both maternal colostrum and mature human milk provide the infant with multiple cytokines, chemokines, growth factors and immunoglobulins. These factors support both anti-infectious properties and anti-inflammatory properties, which aids in the regulation of the neonatal inflammatory response, reducing primary and secondary tissue loss.
- Providing human milk to all infants is an impossible task without engaging the parents in the process and educating them about how human milk is a prevention measure for necrotising enterocolitis (NEC). Feeding decisions require informed parents who understand the value of human milk, early initiation of pumping, consistent pumping and adequate support.

2 Clinical Management

2.1 Competency required

- Registered Nurses who have completed NICU Level 2 orientation
- Enrolled Nurses who have completed NICU Level 2 orientation and are working under the direction and delegation of a registered nurse

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2.2 Equipment

- Expressing Kit
- Electric Breast pump
- Expressing diary
- Expressing Care Plan document

2.3 Guideline

- The Expressing Care Plan should be used to guide NICU staff to support parents with the decision to provide breast milk and with the initiation and maintenance of an expressed milk supply.
- The Expressing Care Plan will be placed in the front of every baby's folder and will be checked by every nursing shift.
- Early contact with the postnatal care team ensures that the mother has commenced expressing within the first 6 hours post-delivery, ideally within the first hour.
- Ongoing review of expressing ensures that a mother is assisted to maintain an ongoing satisfactory milk supply.

3 Patient information

- "Breastfeeding your sick or premature baby" pamphlet
- "Breast milk expressing pack" pamphlet

4 Audit

4.1 Indicators

- An Expressing Care Plan is sighted in the front of every baby's folder in NICU.
- All mothers commence expressing within 6 hours post-delivery (unless there are extenuating circumstances such as the mother declining to express or maternal health, e.g. mother in ICU)
- All mothers receive the information pamphlets – see section 3.

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5 Evidence base

5.1 References

- C Battersby, *et al*, (2014) The impact of a regional care bundle on maternal breast milk use in preterm infants: outcomes of the East of England quality improvement programme. *Arch Dis Child Fetal Neonatal Ed* 99 p395-401
- Nancy A. Garofalo, Michael S. Caplan, (2019) Oropharyngeal Mother's Milk, State of the Science and Influence on Necrotizing Enterocolitis, *Clinics in Perinatology*, 46 p77-88
- Sheila M. Gephart, Katherine M. Newnam, (2019) Closing the Gap Between Recommended and Actual Human Milk Use for Fragile Infants. What Will It Take to Overcome Disparities? *Clinics in Perinatology* 46 p39-50

5.2 Associated Te Whatu Ora Waikato Documents


- [Ūkaipo/Breastfeeding – Step 1 Breastfeeding](#) policy (0132)
- [Ūkaipo/Breastfeeding – Step 5 – Maintaining Lactation](#) (5465)
- [Labelling, handling, storage, transport and administration of human milk in New Born Intensive Care Unit \(NICU\)](#) (2771)
- [Enteral Feeding: standardisation of feeding in Newborn Intensive Care Unit \(NICU\)](#) (1196)

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Appendix A – NICU Expressing Care Plan Document (Sample only)

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Newborn Intensive Care Unit

Patient Label

Name: _____

NHI: _____ DOB: _____
dd/mm/yy

Address: _____

or patient details

Expressing care plan – Keep in front of red folder

Action	✓ (tick)	Date	Signature
1 Discuss benefits of breastmilk in relation to: <ul style="list-style-type: none"> reducing the incidence of bowel infections (NEC) protective qualities that help reduce the risk of infections better tolerance when compared to formula feeds maternal benefits. 			
2 Issue reusable Expressing kit from NICU Instructions given on how to use and how to clean and sterilise			
3 If the mother has not visited the NICU within the first 6 hours. Phone call to postnatal ward or HDU is required to ensure the mother has started expressing Time of birth: _____ Time expression started: _____ Reason not started: _____			
4 Explain importance of skin to skin contact with baby (when appropriate) and develop a plan for skin to skin			
5 Explain importance of frequent milk expression: 7-8 expressions in 24 hours			
6 Offer Expressing Diary with an expressing plan to mum			
7 Discuss milk storage, transport and labelling			

Expressing reviewed on	Day 3	Day 5	Day 7	Day 9	Day 10 onwards
✓ (tick)					
Advice given					
Signature					

Referral to Lactation Consultant	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date: _____ <small>dd/mm/yy</small>
<input type="checkbox"/> Issued Electric Breast Pump	Pump Number: _____	Date: _____ <small>dd/mm/yy</small>

To be filed in Clinical Record in Clinical Record section
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09/19