

Local
Guideline

Expressed Breast Milk- Freezing, storage and Checking of

Sites where Local Guideline applies	Neonatal Intensive Care/Special Care Nursery JHCH
This Local Guideline applies to:	
1. Adults	No
2. Children up to 16 years	No
3. Neonates – less than 29 days	Yes
Target audience	NICU Clinical Staff
Description	Provides information for the clinician regarding storage and checking procedures for breast milk

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Keywords	Breast milk, expressed breast milk (EBM), IMMS
Document registration number	JHCH_NICU_09.03
Replaces existing document?	Yes
Registration number and dates of superseded documents	JHCH_NICU_09.03 September 2011
Related Legislation, Australian Standard, NSW Ministry of Health Policy Directive or Guideline, National Safety and Quality Health Service Standard (NSQHSS) and/or other, HNE Health Document, Professional Guideline, Code of Practice or Ethics:	
<ul style="list-style-type: none"> • NSW health Policy Directive PD 2017_013 Infection Control and prevention Policy • NSW Health Policy Directive PD2017_032 Clinical Procedure Safety • National Health and Medical Research Council (2012) Infant Feeding Guidelines. Canberra 	
Prerequisites (if required)	N/A
Local Guideline note	This document reflects what is currently regarded as safe and appropriate practice. The guideline section does not replace the need for the application of clinical judgment in respect to each individual patient but the procedure/s require mandatory compliance . If staff believe that the procedure/s should not apply in a particular clinical situation they must seek advice from their unit manager/delegate and document the variance in the patients' health record.
Position responsible for the Local Guideline and authorised by	Pat Marks. General Manager / Director of Nursing CYPFS
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This document contains advice on therapeutics	No
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PURPOSE AND RISKS

This local clinical procedure has been developed to provide instruction to the health clinician and to ensure that the risks of harm to the child associated with storage, checking and administering breast milk are prevented, identified and managed.

The risks are:

- *Contamination of breast milk*
- *Exposure of body fluids to clinicians*
- *Incorrect breast milk administered to infant*

The risks are minimised by:

- *Clinicians following universal precautions and wearing PPE when handling breast milk*
- *Clinicians seeking further assistance if the checking breast milk is outside their scope of practice*
- *Following the instructions set out in the clinical procedure for storage and handling of breast milk to minimize contamination*
- *Thorough identification and documentation by checking of the infant against the breast milk label*

Risk Category: Choose one category: *Clinical Care & Patient Safety*

GUIDELINE

This Guideline does not replace the need for the application of clinical judgment in respect to each individual patient.

GLOSSARY

Acronym or Term	Definition
BFHI	Baby Friendly Health Initiatives
EBM	Expressed Breast Milk
EEN/RN	Endorsed Enrolled Nurse/Registered Nurse
MRN	Medical Records Number
NICU	Neonatal Intensive Care Unit
IMMS	Incident Notification and Management System

Staff Preparation

It is mandatory for staff to follow relevant: “Five moments of hand hygiene”, infection control, moving safely/safe manual handling, documentation practices and to use HAIDET for patient/carer communication: **H**and hygiene **A**cknowledge, **I**ntroduce, **D**uration, **E**xplanation, **T**hank you or closing comment.

Rationale

The importance of newborn infants receiving breast milk is well supported (National Health and Medical Research Council NHMRC, 2013; NSW Health PD 2010 Breast Milk: Safe Management).

However it is also important to remember that breast milk is a body fluid and has the potential for possible transmission of infectious pathogens if contaminated and / or given to the wrong infant. The risk of transmission of disease by this route is low but is possible (NSW Health Procedures: PD2010-019). For this reason it is important to have an effective process in place to check breast milk and to ensure that infants receive the correct expressed breast milk.

To facilitate an effective checking process for breast milk it is necessary to ensure that all babies have secure identification in place on two sites at all times (PD2010_019).

Indwelling gastric tubes are labelled with the infant's medical record number (MRN) sticker to assist with the checking and administration of feeds. The sticker should be initialled and checked against identification (ID) bands by 2 Registered Nurses (RN's), or 1 RN and an Endorsed Enrolled Nurse (EEN) prior to placing on the gastric tube (to assist in checking correct infant / correct feed, without handling / unwrapping settled infant to check armband); Refer to: [Enteral Feeding-Initiation, Progression and Methods 2013 JHCH_NICU_09.01](#)

Outcomes

- **Mothers will be given appropriate advice on the safe expression, freezing and storage of breast milk**
- **The mother will receive consistent advice on the expressing, freezing and storage of breast milk**
- **Expressed breast milk will be correctly labelled, including the infants and mothers names, the infant's medical record number (MRN), the contents (e.g. Expressed Breast Milk), date and time expressed, date and time milk will expire after removal from freezer and any additives.**
- **Expressed Breast Milk will be checked using the infant's fluid chart, MRN and name tags by 2 RN's, 1 RN and an EEN or one registered nurse and one parent prior to administration to the infant.**

Storage of expressed breast milk for infants in hospital

- Area Health Services are required to safely manage and store expressed breast milk as infants must only be fed expressed breast milk from their birth mother (PD2010_019).
- Expressed breast milk is best used when fresh. If this is not possible, the expressed breast milk can be stored in a refrigerator or freezer in sterilised plastic containers.
- Mothers are advised by staff to always express their expressed breast milk into a clean, sterile CSSD packaged bottle, or, a washed and sterilised container.
- Fresh expressed breast milk can be stored in the main part of the refrigerator for 48 hours with temperature of 4°Centigrade. Frozen breast milk removed from the freezer then stored in 4°Centigrade fridge must be used within 48 hours (PD2010_019).
- If expressed breast milk is not going to be used within 24 hours, then freeze. **Do not fill containers completely to the lid to allow a gap for expansion upon freezing.**

- Expressed breast milk brought from home should be checked in to the milk fridge/freezer by two staff, or one staff and one parent if appropriate (PD2010_019). Once checked, both staff or staff and mother will sign the label.

Labelling expressed breast milk containers

- Labels for expressed breast milk are available in the NICU, and mothers should be given a supply of labels. Please check daily with mothers to ensure they have an adequate supply of labels.
- All expressed breast milk containers, including those brought from home, should be consistently, correctly and clearly labelled using moisture resistant ink, with the following information
 - The infants medical record number(MRN)
 - The infants and mothers names
 - Contents (e.g. Expressed Breast Milk)
 - Date and time expressed
 - Date and time milk will expire after removal from freezer
 - Date and time fortifier has been added if ordered
 - An additional additives label is to be used if necessary

Storage of expressed breast milk in NICU

- Each infant should have an allocated area and a labelled storage basket/container for the expressed breast milk containers in the fridge/freezer.
- Each staff member should check the refrigerator for their infant allocation each shift to ensure all expressed breast milk is correctly labelled and stored (PD2010_019).
- **The expressed breast milk stock should be rotated by placing the new expressed breast milk behind the supply of existing expressed breast milk already stored in the freezer.**
- If there are two infants with a similar name staff need to ensure a 'same or similar name' sticker is placed on the storage basket / container of both infants and on the location sheet on the freezer door. **Avoid grouping the expressed breast milk containers of infants with the same or similar names together.**

Defrosting expressed breast milk needed now

- Thaw frozen breast milk by moving it from the freezer to the Medela Calesca milk warmer. Follow instructions for length of time required to defrost as per the manufacturer's guideline. Date and time on the container when breast milk will expire. The 'use by' time is **strictly 24 hours** after defrosting in the milk warmer. Any unused expressed breast milk **must** be discarded after this time.
- Press seal plastic bags **cannot** be used in the Medela Calesca milk warmer as this is contrary to manufacturer's guidelines.
- **Do not use partially defrosted expressed breast milk for a feed, as some of the nutrients will be missing.**

Defrosting expressed breast milk needed later

- Thaw frozen breast milk by moving it from the freezer to the fridge for slow thawing. Document date and time milk will expire on the label. The 'use by' time is **strictly 48 hours** after removal from freezer.
- Expressed breast milk is only to be considered thawed if, upon gentle shaking, the container has no ice within. Do not open container until milk is ready to use.
- Once thawed, expressed breast milk should be discarded once expired date and time is reached (ie. 48 hours from time taken from freezer).
- Following defrosting of expressed breast milk gently mix
- Never refreeze or reheat expressed breast milk.
- **DO NOT** put expressed breast milk in the microwave oven to warm or defrost. Microwaves destroy the vitamin content in the milk. In addition, there is the potential to burn the infant.
- If press seal plastic bags for freezing are used, stand the frozen bag in a second container in the refrigerator. Label the container with time and date milk will expire after removal from the freezer. Once expressed breast milk has thawed, decant expressed breast milk into a sterile bottle and label correctly. 2 RN's, 1 RN and an EEN or one registered nurse and the mother if appropriate, are to check the expressed breast milk when decanting and both are to then sign this label. Always wear PPE when handling breast milk.

Dispensing & checking expressed breast milk prior to feed

- All expressed breast milk is to be checked by 2 RN's, 1 RN and an EEN or 1 registered nurse and the mother if appropriate (PD2010_019). All expressed breast milk that is dispensed into a second or third container/syringe should be checked with the original expressed breast milk container at that time. It should be correctly labelled and signed by 2 RN's, 1 RN and an EEN or 1 registered nurse and the mother if appropriate.
- Treat all expressed breast milk with the same stringent checking process as administration of medications. Ensure you have the correct feeding time and amount (by checking infants feeding and fluid chart) and the correct infant (by checking infants ID bands). Signing on the infant's flow chart indicates that this check is correct prior to the infant receiving the expressed breast milk.
- **The MRN and name** are to be checked as the primary reference points.
- When taking expressed breast milk out of the freezer, it is checked against infant's fluid chart order. The frozen expressed breast milk should be taken to the bedside to facilitate the checking procedure, being careful not to spill or contaminate infant's charts with the expressed breast milk.
- If a feed is delayed, expressed breast milk should be discarded and not left at the bedside.
- Check the infant's MRN and name on the expressed breast milk label with the MRN and name on the fluid chart.
- 2 RN's, 1 RN and an EEN or 1 registered nurse and the mother if appropriate to check expressed breast milk and sign the flow chart for each feed *i.e. it is important to have 2*

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signatures on the flow chart, and if checked with the mother, to obtain her signature alongside the RN's signature.

- Expressed breast milk that is dispensed into a second or third container/ syringe should be correctly labelled and signed by 2 RN's or 1 RN and 1 EEN following checking with the original expressed breast milk container at time of dispensing. All expressed breast milk delivered by syringe pump or kangaroo pump should be correctly labelled, including date and time feed commenced and signed.
- 2 RN's or 1 RN and an EEN to check expressed breast milk when decanting milk to another bottle as when adding extra calories such as human milk fortifiers. The new bottle is to be correctly labelled including the time and date the fortifier was added. Both registered nurses then sign this label. The infant's fluid chart is also to be signed by both nurses once a day when fortifier is added to expressed breast milk.

Management of expressed breast milk following infant discharged

- All stored expressed breast milk is to be taken by a parent when the infant is discharged.
- Infants transferred to another hospital will have expressed breast milk packaged in ice for transfer with the infant.
- Storage of expressed breast milk for discharged infants is only to be for a short period to enable parents to collect. All expressed breast milk for the discharged infant should be packed and sealed and labeled with date to be collected by parents. This is the responsibility of the nurse facilitating the discharge process.
- For expressed breast milk of discharged infants stored beyond the agreed collection date, the parents are to be contacted to discuss options to collect or discard expressed breast milk.

Management of incidents where infants receive the incorrect expressed breast milk

- All incidents are to be reported **immediately** to the Nurse Unit Manager (NUM) or Clinical Nurse Specialist (CNS) In-charge, the medical officer on duty and then Infection Control & Prevention Team.
- Complete incident notification and management system (IMMS)
- Ensure timely notification and counselling of the biological mother / parents and source mother that this incident has occurred.
- Each incident requires an individual assessment of clinical risk factors to identify the appropriate screening and follow up pathology tests that should be obtained. This will include obtaining informed consent from the source mother.
- The parents of the affected infant are fully informed about the pathology results, appropriate follow up and/or treatments required for their baby, and are offered counselling and support.

Information to be given to mothers expressing breast milk

- Mothers may put 2 or 3 small lots of expressed breast milk into the one container. Label the container with the correct expressed breast milk labels. The time and date the expressed breast milk was first expressed should be recorded on the container. The expiry date and time will be based on the first time of expression.
- If mothers use expressed breast milk for their baby at home, whatever expressed breast milk is left in the bottles after the infant's feed must be thrown away.

Frozen Expressed Breast Milk can be stored for:

- 6 months in a separate 'free standing' deep freezer unit.
 - 3 month in the freezer compartment of a single unit 2 door refrigerator/freezer.
 - 2 weeks in a single door refrigerator with a freezer compartment inside the refrigerator, e.g. a bar fridge or small caravan fridge.
- **N.B. Do not freeze expressed breast milk in glass containers - Use plastic containers.** Recommend to mothers that new disposable containers are used and containers not reused. New containers must be washed and sterilized before use. A list of approved suppliers of plastic containers that are BPA and 'polyethylene free' is available from the Lactation Consultant.
 - Initially mothers should be advised that they might only express very small amounts of colostrum or breast milk. These small amounts are precious and will be used for their baby - PLEASE KEEP THEM.
 - Mothers with infants in the NICU are encouraged to express as soon as possible after delivery. Mothers may start expressing using the electric breast pump from this time. They will be educated on hand expressing as a requirement of BFHI.
 - Do not put breast milk in the microwave oven to warm or defrost. Microwaves destroy the vitamin content in the milk.

Recommendations on the safe transport of expressed breast milk

- Transport expressed breast milk in a clean, insulated container, such as an esky with a freezer brick. Frozen expressed breast milk must be maintained in a completely frozen state and refrigerated expressed breast milk kept at 4 °Centigrade by using the appropriate equipment.
- Always ensure the expressed breast milk is correctly labelled prior to placing in the refrigerator or freezer.
- If some milk has thawed it should be used within 48 hours – do not refreeze
- Expressed breast milk brought from home should be checked into the fridge/freezer by two staff or one staff and mother of the baby.
- Place the expressed breast milk in the NICU refrigerator or freezer immediately upon arrival in the storage basket / container checking that it is labelled correctly.
- **The expressed breast milk stock should be rotated by placing the new expressed breast milk behind the supply of existing expressed breast milk already stored in the freezer.**

References

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- Lawrence, R. 1999 *Storage of human milk and the influence of procedures on immunological components of human milk* Acta Paediatrica Supplement 88(430), 14-18.
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- Yip, E., Lee, J. & Sheey, Y. 1996 *Breast-feeding in neonatal intensive care* in Journal Paediatrics and Child Health Vol 32, 296-298

Related legislation, department of health circulars, area policies etc

- NSW Health Information Bulletin IB2013_039 Foodborne Listeriosis Control in Health Care Institutions
- NSW Health Policy Directive PD2010_019 Breast Milk: Safe Management
- National Health and Medical Research Council (2012) Infant Feeding Guidelines. Canberra: National Health and Medical Research Council.

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Approved by NICU, Operational, Planning & Management Committee 18/12/17
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Implementation, monitoring compliance and audit

1. Approved clinical guideline will be uploaded to the PPG and communication of updated “Expressed Breast Milk-Freezing, Storage and Checking of” clinical guideline to NICU staff will be via email and message on the HUB.
2. Incident investigations associated with this Guideline and Procedure will include a review of process.
3. The Guideline and Procedure will be amended in line with the recommendations.
4. The person or leadership team who has approved the Guideline and Procedure is responsible for ensuring timely and effective review of the Guideline and Procedure.
5. Evaluation will include a review of the most current evidence as well as a consideration of the experience of Neonatal staff at JHCH in the implementation of the Guideline and Procedure.

Feedback

Any feedback on this document should be sent to the Contact Officer listed on the front page.