



## **SECTION 3: GENERAL CARE OF THE SICK CHILD**

### **3.8 Infant Feeding (Breast and Bottle Feeding Guidelines)**

#### **3.8.1 Breastfeeding**

##### **3.8.1.2 *Expressed Breast Milk: Collection, Storage and Administration***

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## Introduction

Breastfeeding mothers are to be actively supported to continue breastfeeding their infant when admitted to hospital in accordance with [WA Baby Friendly Health Initiative -Hospital Breastfeeding Policy 2014](#).

Every effort should be made to facilitate unrestricted breast feeding and the promotion of adequate diet, fluids and rest for the mother. Breastfeeding mothers can be provided with meal vouchers during hospital admission. If for any reason the infant is unable to feed or the mother's milk supply is compromised breast pump expression may be required.

## Expressed Breast Milk (EBM)

Any amount of breast milk is beneficial, especially for pre-term and sick infants and can aid recovery<sup>1</sup>.

Human breast milk requires careful handling as it is a non-sterile body fluid and has the potential to transmit infection to vulnerable infants either through pathogens found in the milk or from external contamination during collection, handling and storage processes. Infection control measures are therefore much more stringent for sick and preterm infants in hospital than for healthy infants at home.<sup>2, 3,4,5</sup>

## Aim

To safely handle, store and administer expressed breast milk (EBM) in a manner that:

1. reduces the risk of microbial contamination
2. maintains optimal immunological properties of the milk
3. prevents an infant receiving breast milk from an incorrect mother

**Applies to:** Inpatient wards at PMH

## Key Points

- Breast milk is to be handled in accordance with infection control precautions as outlined in '[Occupational Exposures to Blood and Body fluids](#)' (Infection Control Manual).
- To reduce the risk of administering breast milk to an infant from the incorrect mother all EBM must be clearly labelled and double-checked against the infant's identity band before storage and administration (as per [CAHS Patient Identification policy](#)).
- Provide mothers and family members with clear instruction on hospital procedures for correct labelling, storage, administration and transportation of EBM.
- It is vital family members are informed that incorrectly labelled EBM will not be accepted for storage and any unlabelled breast milk found at the bedside or in the fridge will be discarded.


- Supplemental feeding with infant formula is only to be administered under the direction of the treating clinician and with the agreement of the mother.
- Written referral to a dietitian is required for additives/fortification of all infant feeds.

**Procedures**

Collection of EBM

**Equipment**

Electric breast pump (available on most wards)	+ piston for Lactina™ pump
Expressing kit (single-patient disposable or reusable kit)	Correct size breast shield
	Sterile single-use bottles for collection
	EBM & patient labels

Steps	Additional Information
1. Clean the surface of the breast pump with a sporacidal wipe prior to use.	Electric breast pumps are shared between mothers - there is no requirement to dedicate a pump to patients on transmission based precautions providing the pump and stand is cleaned appropriately between mothers. <sup>6</sup>
2. Supply each mother with their own expressing kit.	This may be a 24 hour use disposable kit or a reusable kit that has been thermally disinfected by HSSD.
3. Instruct the mother on hand hygiene prior to assembling the kit.	To prevent microbial contamination of EBM collecting equipment.
4. Ensure all parts of the kit are present and assembled correctly.  Refer to manufacturer’s information for detailed instruction (refer to resources section)	
5. Expression should commence with the pump set to stimulation phase for 2 minutes then switched to expressing phase.  Suction pressure should be gradually increased until the mothers’ ‘ <i>maximum comfort vacuum</i> ’ has been reached.	For optimum milk expression. <sup>7</sup>

Steps	Additional Information
<p>6. On completion of expressing:</p> <ul style="list-style-type: none"> <li>• check the EBM is labelled in full with:                             <ul style="list-style-type: none"> <li>– Infants name</li> <li>– UMRN</li> <li>– Date &amp; time of expressing</li> </ul> </li> <li>• check the label matches the infants' ID band</li> <li>• place in ward fridge or send to IFR for additives or freezing</li> </ul>	<p>Mother's details may be present if infant has not been registered.</p> <p>Freshly expressed milk can be kept at room temperature for 4 hours.</p> <p>Refrigerated EBM must be used within 48 hours in hospital.</p> <p>If EBM is to be frozen the bottle should be no more than <math>\frac{3}{4}</math> full to allow for expansion during freezing.</p>
<p><b>Cleaning EBM equipment</b></p> <p>After <b>each</b> expression the kit is to be cleaned as follows:</p> <ul style="list-style-type: none"> <li>• Provide the mother with a wash bowl dedicated for cleaning expressing equipment.</li> <li>• Separate all parts of the breast pump kit, including the valve and membrane. Rinse all pieces that contact the milk in cold water.</li> </ul>	<p>Single-patient use or disposable wash bowls <i>where available</i>.</p> <p>Expressing equipment is not to be washed in patient sinks.<sup>8</sup></p>
<ul style="list-style-type: none"> <li>• Wash the pieces in warm soapy water removing all residual milk with disposable cotton tips.</li> <li>• Rinse thoroughly in hot tap water and shake off excess.</li> <li>• Allow to air dry or dry with a clean paper towel.</li> <li>• Once dry, store in a sealed, labelled container.</li> </ul>	<p>Use mild hospital washing detergent.</p>
<p>Inspect the tubing:</p> <ul style="list-style-type: none"> <li>• if condensation is seen - run the pump with tubing attached for 1-2 minutes or until dry.</li> <li>• if milk observed, rinse in cold water before sending to HSSD for disinfection.</li> </ul>	
<ul style="list-style-type: none"> <li>• Dispose of wash bowl contents in the sluice or toilet.</li> <li>• Rinse the bowl and clean with a Tuffie 5 wipe after each use.</li> <li>• Dispose of bowl when no longer required or reprocess non disposable</li> </ul>	

Steps	Additional Information
equipment as per manufacturer instruction between patients.	
7. Every 24 hours: <ul style="list-style-type: none"> <li>– send reusable kits to HSSD or</li> <li>– discard disposable kits.<sup>9</sup></li> </ul>	<b>Note:</b> For reusable kits ensure all pieces of the kit are sent for reprocessing including the valve, membrane and tubing.
8. Wipe breast pump with Tuffie wipe after each use.	

## 1. Storing EBM

### Key point

- Storage requirements for EBM in hospital are more stringent than in the home setting and stored as follows<sup>10</sup>:

EBM status	Room Temp <math><26^{\circ}\text{C}</math>	Fridge $\leq 4^{\circ}\text{C}$	Freezer $-18^{\circ}\text{C}$
Freshly expressed	4 hours	48 hours	3months (12 months deep freeze)
Thawed in fridge	4 hours	24 hours	Do not refreeze
Thawed outside of fridge in cool water ( $<37^{\circ}$ )	For current feed	24 hours	Do not refreeze
Infant has begun feeding (from bottle)	For current feed only & discard	Discard	Discard

- EBM not likely to be used within 48 hours should be sent to the Infant Formula Room (IFR) for freezing. There may be limitation on the amount the hospital can store – check with the IFR.
- Fortified EBM is only to be prepared in the IFR and on the direction of a dietitian.
- Fortified and thickened EBM is to be used within 24 hours. Additives will be identified on the label by the IFR.
- Multiple bottles of a mother’s EBM should be stored collectively, preferably in a container/basket labelled with the infants’ name. Place alert stickers on the containers for infants with similar names.

## 2. Thawing & Warming EBM<sup>11</sup>

- EBM should preferably be defrosted in the fridge and used within 24 hours of being thawed.
- EBM can also be defrosted quickly by standing in cool or lukewarm water (<37°C), ensuring the water level remains below the top of the bottle. EBM that has been thawed but not warmed can be stored in the fridge for up to 24 hours.
- Label the EBM container with the date/time of thawing.
- EBM can be warmed from the fridge for immediate feeding by standing in a container of warm water until it reaches body temperature. Gently swirl the bottle to homogenise the milk. Vigorous shaking can damage some of the milk proteins.
- Warmed EBM not consumed within one hour is to be discarded.

**Note:** Never heat EBM in a microwave as this can destroy some of the immunological properties of the milk and risks scalding the infant due to uneven heating and hot spots.<sup>3</sup>

## 3. Administering EBM

- A two person check (two nurses or mother/nurse) must be performed prior to administration of EBM and documented on the fluid balance record by the nurse(s) delivering/administering the milk.
- If EBM is to be decanted, the label on the original container is to be double-checked against the infants ID band. A new patient label must be immediately placed on the bottle or syringe used for the feed/infusion and must contain the date, time and initials of the two nurses.
- EBM for continuous enteral infusion is not to be warmed; change bottle/syringe every 4 hours and administration sets every 24 hours or whenever integrity is compromised or disconnected from the patient.<sup>12</sup> (Refer also to [PNPM 3.3.3 Nasogastric Tube Feeding](#) for intermittent feeding).
- Inadvertent administration of breast milk to an infant from an incorrect donor requires immediate reporting and treated in the same manner as other blood and body fluid exposures.<sup>13</sup> see KEMH [Ingestion of Breast Milk from an Incorrect Donor](#)

## 5. Transporting EBM

- Mother's providing breast milk expressed at home for storage in hospital are to be instructed on correct storage, labelling and transporting requirements. Provide the mother with the [Health Facts](#) sheet – adherence is to be reinforced by ward staff.
- Fresh EBM is only to be accepted if expressed within 48 hours, is labelled correctly and transported in an insulated cooler or small Esky and remains chilled on arrival to the ward. Place in the ward fridge or send to the IFR for freezing or additives if required.
- Frozen EBM for storage in hospital must remain frozen on arrival to the ward. Partially defrosted milk is to be defrosted in the ward fridge and either used within 24 hours or discarded.

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Related policy, procedures and guidelines.
<a href="#">Department of Health WA. Baby Friendly Health Initiative: hospital breastfeeding policy. 2014</a>
<a href="#">Ingestion of Breast Milk from an Incorrect Donor.</a> (WNHS Infection Control Procedures)
<a href="#">Occupational Exposures to Blood and Body Fluids</a> (CAHS Infection Control Manual)


Resources/Consumer Information
Health Facts: Expressed Breast Milk Procedures in Hospital (pending)
<a href="#">Expressing and storing breastmilk</a> ( <i>at home</i> ) Australian Breastfeeding Association
<a href="#">KEMH clinical guidelines and resources</a> Section 7 Breastfeeding
<a href="#">Medela Reusable Pump Sets: Instructions for Use</a> Downloads available for Symphony™ and Lactina™ Breast pumps
<a href="#">Breastfeeding - Child and Antenatal Nutrition Manual</a> (CACH)
<a href="#">Infant Feeding Guidelines: Information for health workers. National Health and Medical Research Council. 2012</a>

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