UCSF Health

NEONATAL PEDIATRIC NURSING PROCEDURE

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE

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Critical Points

EDUCATION & SUPPORT OF LACTATING MOTHERS

1. Human breast milk is recognized as the standard for infant nutrition.
2. Mothers who are unable to effectively breastfeed their infants should be encouraged to pump breast milk. Education, ongoing support, and appropriate breast pump and supplies should be provided.
3. Breast pumps used by multiple users are cleaned before and after each use with hospital-approved sanitizing wipes.
4. Refer to Breastfeeding Techniques for additional information, including milk expression.

DONOR BREAST MILK

1. DBM at UCSF is human milk provided only by an accredited milk bank (licensed by California and registered with the FDA to provide human tissue) where donated human milk has been screened, tested, pasteurized, frozen, purchased and distributed for use in compliance with the Human Milk Banking Guidelines of North America.
    a. Donor human milk brought in by parents for inpatient feeding is not acceptable at UCSF for the above stated reasons and due to lack of temperature regulation documentation required for maintenance of UCSF's tissue bank license.
2. As a license requirement, each donor milk bottle lot number is tracked via electronic milk tracking system/ manually logged out by the milk technician/charge RN to a specific patient medical record number.
3. DBM expiration time is 48 hours, which is different from 24 hours for thawed MBM, because DBM has been pasteurized before frozen.
    a. See Table 1. Expiration Times for Inpatient Infant Feedings.
4. Refer to Breast Milk-Donor nursing procedure, which includes required patient eligibility criteria and weaning.
5. DBM use is generally limited to 2 weeks before weaning is ordered.

MILK TECHNICIAN PROGRAM & ELECTRONIC MILK TRACKING SYSTEM

1. Human milk is never fortified in the patient room. Milk technicians fortify human milk daily under a hood using aseptic technique.
    a. The UCSF Milk Technician Program is part of the multidisciplinary system utilized to assure compliance related to breast milk safety. (See NFS Policy 03.360.16 Handling and Fortification of Breastmilk for additional information.)
2. At all points in the collection, storage, handling, and administration processes for human milk it is RNs' and milk technicians' responsibility to ensure all milk is carefully handled and clearly labeled with:
    a. Infant's name and MR number.
    b. Patient ID bar code used for scanning.
    c. Either the date and time it was pumped, or the date and time of milk's expiration.
3. The Timeless Inventory System is the electronic milk tracking system used to inventory expressed milk in the Benioff Children's Hospital. See Appendix G for Timeless Inventory process.

IDENTIFICATION OF BREAST MILK

1. As a license requirement all breast milk in any container is to be clearly labeled at all times. At all points in the collection, storage, handling, and administration processes for human milk, it is RNs' and Milk Technicians' responsibility to exclusively handle and ensure all milk is clearly labeled.
    a. Breast milk types include MBM, DBM, and fortified breast milk.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

   b. Feeding containers are: bottles, enteral syringes, and feeding bags of any size.
   c. Infant feeding labels contain the patient name, medical record number, breastmilk barcode ID for scanning, and pump/expiration date and time.
2. Changing or combining infant feeding containers requires a 2-RN independent check.
3. When stored in designated milk refrigerators and freezers, each mother's milk is kept separated in clearly labeled closed bins or zip top plastic bags.
4. Treat infant feedings the same as a medication before administration or a required handoff. Complete the "5 Rights" check used for medication administration.
5. All breast milk labels (including fortified breast milk) contain a barcode which is recognized by the electronic milk tracking system for a specific infant when scanned into the EHR. Scanning the infant ID band first and then the milk label barcode into the EHR provides validation of the correct milk for the infant. (Wrong milk would not be validated in the EHR.) Successful validation appears as in Figure 1.

Fig. 1. Successful EHR scan display

STORAGE OF BREAST MILK

1. Dedicated milk refrigerators and milk freezers standards:
   a. Only milk technicians and RNs handle human milk.
   b. Automated Temperature Monitoring is performed (see Nursing policy Automated Temperature Monitoring).
   c. Kept in secure locations that are not accessed by parents.
   d. Used for only patient breast milk and formula; not for food, medications, or non-patient breast milk.
   e. All stored breast milk and formula containers are properly labeled (per license requirement).
      i. (See Milk Identification.) (See Formula Preparation, Storage, and Use.)
   f. Only milk known to be safe for infant consumption can be stored.
      i. If a mother's milk is deemed temporarily unsafe for her infant to consume (e.g., due to incompatible prescription medications or substance use), mothers are encouraged to continue to pump their milk to maintain their supply but to disposed the milk until it is documented as safe by providers.
      ii. OB-ICN Pharmacist (or Pediatric Pharmacist after hours) is a collaborative resource for the medical team when safety of maternal medication is in question.
      iii. In event of substance use, providers document in the EHR if and when breastmilk is safe for infant consumption.
2. Dedicated milk refrigerators are located on each BCH unit, accessible only to milk technicians and RNs.
   a. **ICN:** Each infant has a bedside penguin refrigerator drawer.
   b. **Non-ICN** BCH units: Infant feedings are stored in the Milk Pantry refrigerators if an individual refrigerator is not available.
      i. Each mother's milk is stored in a separate, closed bin clearly labeled with the patient's name and breast milk labels.
3. Dedicated milk freezers are located on BCH units in the Milk Pantry or Milk Room.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

HANDLING & PREPARATION OF BREAST MILK

1. Perform hand hygiene and wear clean gloves to handle MBM. MBM is both a bodily fluid and a food.
2. Encourage mothers to wash their hands before pumping and when handling infant feedings.
3. Chain of custody of a feeding is the same as with a medication. If at any time during the preparation, warming, or feeding process a handoff to another RN occurs (e.g., due to break relief, change of shift, or emergencies) the following must occur:
    a. Verify the 5 RIGHTS**:** correct patient; review EHR order for type of feeding, amount, route, and timing of feeding.
    b. Scanning the infant ID band and then the milk label barcode into the EHR before a feeding validates correct milk for an infant. See Figure 1. (Wrong milk for the infant will not be validated.)
4. It is ideal to initiate feedings with colostrum then follow with breast milk in chronological order.
5. Waterless electric breast milk warmer liners to be changed **every 12 hours**.
6. Milk warmer liners are patient specific; do not share liners between patients.

MONITORING MILK REFRIGERATORS & FREEZERS

1. All milk refrigerator and freezer temperatures are monitored by an electronic system. When there is temperature excursion out of the set range, an alert is sent to the Mission Bay Nursing Office staffer and then the Nursing Supervisor, who will notify the unit (per policy).
    a. Milk freezers alert if warmer than -20 degrees C for greater than four hours. (No alert is generated for colder than -30 degrees.)
    b. Milk refrigerators alert if warmer than 4 degrees C or colder than -1 degrees C for more than four hours.
    c. If charge RN is unable to correct the alarm, milk will need to be stored in an alternative Milk Pantry refrigerator/freezer dedicated for milk/formula storage only.
        i. Enter repair tickets online by accessing the MCSS Help Desk link on CareLinks.
2. Facilities Management performs routine maintenance on freezers according to a hospital-wide maintenance program.
3. ICN staff working with Penguin refrigerator drawers sign the “Penguin Fridge Information Sheet” during orientation (see Appendix E).
4. Access to milk storage refrigerators and freezers is limited to nursing staff and milk technicians. (Parents do not have access.)

EXPOSURE INFANT RECEIPT OF WRONG MATERNAL BREAST MILK

1. Human milk is recognized as both the standard for infant nutrition, as well as, a potential source of transmission for some bacteria and viruses.
2. Breast milk is a body fluid and if given to the wrong infant will be treated as a patient/visitor exposure to blood or body fluid.

Supplies

EDUCATION & SUPPORT OF LACTATING MOTHERS

- Breast Pump and appropriate set up kit
- Getting Started Breast Pumping Kit
- Breast Milk Labels
- Pink bin for washing equipment

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

DONOR BREAST MILK

- Donor milk supply
- Specific labeled freezer bins with lids for 2 ounce and 4 ounce DBM inventory
- Donor Milk logs and binder
- Monitored milk freezers kept in a secure place

MILK TECHNICIAN PROGRAM & ELECTRONIC MILK TRACKING SYSTEM

- Laminar hood
- Antiseptic wipes
- Electronic Milk Tracking System
- Scanners
- Breast milk labels with barcode IDs
- Maternal breast milk supply
- Donor breast milk supply
- Fortification supplies (see NFS policy Handling and Fortification of Breastmilk)
- Gloves, bouffant caps, and gowns
- Monitored milk refrigerators and milk freezers kept in a secure place
- Donor milk logs and binder
- Frozen breast milk logs and binder

IDENTIFICATION OF BREAST MILK

- Electronic Milk Tracking System
- Scanners
- Breast milk labels with barcode IDs
- Breast milk label maker
- Blank labels
- Name alert labels
- Permanent markers
- Monitored milk refrigerators and milk freezers kept in a secure place
- Milk bins with lids
- Donor milk logs and binder
- Frozen breast milk logs and binder

STORAGE OF BREAST MILK

- Breast milk labels
- Enteric syringes, hard plastic bottles
- Monitored milk refrigerators and milk freezers
- Milk bins with lids
- Labels for identifying the outside of each bin and lid

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

- Table 1: Expiration Times for Inpatient Infant Feedings

HANDLING & PREPARATION OF BREAST MILK

- Breast milk labels with barcode IDs
- Enteric syringes, bags, tubing, and supplies
- Hard plastic bottles
- Access to the current EHR
- Scanner
- Waterless electric milk warmer liner
- Waterless electric milk warmer, or water pitcher for a warm water bath

MONITORING MILK REFRIGERATORS & FREEZERS

- Electronic temperature monitoring system
- Audible temperature alarms

Procedure

EDUCATION & SUPPORT OF LACTATING MOTHERS

1. Clinical RNs – provide verbal instruction, written instruction, and ongoing support to mothers who are:
    a. Pumping breast milk.
    b. Breast feeding their infants directly at the breast.
2. Education
    a. Use UCSF BCH written/video educational materials:
        i. Post-Partum Booklet, given to mothers who delivered at UCSF.
        ii. “Breastfeeding Your ICN Baby”
        iii. “A Guide to Breastfeeding Mothers - While Your Child is at UCSF Benioff Children’s Hospital”
        iv. One View for Breastfeeding and pump related video
    b. Requesting lactation consultation for BCH patients:
        i. Make request when lactation care required exceeds lactation skills of clinical RNs, or when provider orders a lactation consultation.
        ii. For Birth Center, Antepartum, and Adult ICU patients, contact Birth Center Lactation on the Voalte phone.
        iii. For all other BCH Units (i.e., ICN, ED, PCICU, PCTCU, PICU, Ped Med/Surg, TCUP, Hem/Onc and BMT):
            1. Enter a lactation consult request in APeX via “Manage Orders” navigator.
                a. Include clinical reason for request.
                b. Include feeding times if applicable.
                c. Expect consult request will be responded to within 24 hours.
                d. Each consult is a one-time order. For additional follow up submit a new request.
            2. Contact the role of “BCH Lactation RN 1 or 2” assigned to the unit directory via Voalte phone.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

a. The most efficient way to schedule a consultation is by APeX "Manage Orders".
b. Plan to schedule consult appointments. "On demand" and just before discharge appointments are difficult to accommodate.
c. Appointment availability varies daily. Most popular consult times are between 11:00 and 15:00.

DONOR BREAST MILK

1. Ensure at least one of the required patient eligibility criteria for DBM use has been met:
    a. < 28 weeks gestation
    b. < 1000 grams at birth
    c. Post-NEC of any gestational age
    d. Post CT surgery if < 2 months corrected gestational age
    e. < 35 weeks with prenatal exposure to cocaine or methamphetamines
    f. Attending physician's discretion when maternal milk supply is insufficient, unavailable, or contraindicated.
2. Ensure a provider order has been written for DBM use.
3. Ensure informed parental consent is signed and filed in the patient's medical record before administration.
    a. Consents are available in the ICN in English and Spanish.
    b. Consents are 2 pages long and in duplicate. Place the original in the medical record and give the copy to the parents.
4. Milk technician prepares and delivers all orders for DBM.
    a. Clinical RN notifies the milk technician directly to order DBM quantities every 48 hours.
    b. If DBM is needed in the absence of a milk technician, the ICN Lactation RN or charge RN logs it out of the Donor Milk Log and distributes it.
5. Milk technician tracks the original DBM bottle lot number with the electronic breast milk tracking label provided from the milk bank.
6. Upon administration, the clinical RN scans the infant ID tag and the DBM breast milk label.
7. Document the feeding. Choose feeding type option: "Donor Milk".
8. Ensure a provider order has been written to begin DBM weaning.
9. Education
    a. Inform parents the Donor Milk Consent form contains educational information about DBM use.

MILK TECHNICIAN PROGRAM & ELECTRONIC MILK TRACKING SYSTEM

1. Only milk technicians and licensed nursing staff are allowed to access milk rooms and to handle human milk on all BCH units.
2. RNs track freshly expressed milk when scanning (into the EHR) the infant ID then the breast milk label bar code and when scanning milk in and out of the milk inventory system. This scanning process is a safety measure and will only accept correct milk for an infant.
3. If the volume of expressed fresh milk in the refrigerator exceeds the anticipated 48-hour need, move and log the excess into the milk that will expire before use into the milk freezer for later use.
    a. Fresh milk may be refrigerated for up to 96 hours if expressed under clean conditions into single use food-grade plastic containers and is not opened prior to infant feeding.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

   b. To ensure adequate time for fortification and/or processing by the milk technicians under aseptic technique, fresh milk should be moved to the freezer within 48 hours. In the ICN, milk technicians or RNs log the MBM into the milk freezer log.

4. Donning a bouffant cap and gloves is required when entering the ICN Milk Room; when preparing milk in the ICN Milk Room, a gown is also required.
5. In the ICN, use of the Milk Freezer Log (paper log) tracks frozen maternal breast milk (MBM) inventory.
   a. Only RNs and milk technicians have access to stored MBM.
   b. When frozen expressed MBM is brought into ICN, document it in the Milk Freezer Log and place milk into freezer immediately.
   c. Each ICN patient (or set of multiples) with milk in the freezer needs a paper log page(s) to track milk inventory and use.
   d. Milk Freezer logs are maintained in the ICN Milk Room by RNs and milk technicians.
   e. At **discharge**:
      i. MBM that has been logged into the Breast Milk Freezer Log and/or scanned into the milk tracking system needs to be logged out or scanned as “disposed” to family.
      ii. Document milk given to parents in the Discharge Navigator.
      iii. Document milk transferred to another unit or facility in the Transfer Navigator.
6. Milk technicians pick up MBM throughout BCH daily at the beginning of their shift.
7. Milk technicians track milk that is picked up, fortified, and delivered for administration.
   a. **Non-ICN** BCH units: milk technician will pick up the MBM volume needed for each infant’s breast milk fortification order from the unit-based milk refrigerator/ freezer bins.
   b. **ICN**: RNs will flag patient rooms for MBM pick up from penguin refrigerators by 09:30.
   c. If milk needed for that day’s milk fortification order becomes available after the milk technician’s milk pick up rounds, RNs will Voalte text the ICN milk technicians then deliver the additional MBM to the ICN Milk Room.
8. Ensure all breast milk fortification orders are current in the EHR by 13:00 daily.
9. Milk technicians prepare and fortify individual breast milk per fortification orders for all BCH patients between 13:00 and 18:00.
   a. Breast milk is never fortified in the patient room.
   b. Fortification takes place under a hood, using aseptic technique, and just one patient order at a time.
   c. To communicate with the milk technician during this timeframe use Voalte text (do not call) as the technician cannot answer the phone while mixing an order. Allow 30 minutes for technician to respond.
10. Milk technicians deliver fortified milk to all units by 18:00.
11. In absence of a milk technician:
   a. If milk needs to be fortified it is done by the charge RN, using aseptic technique, in either the ICN Milk Room or in the unit Milk Pantry. (See Appendix F: Breast Milk Fortification in the Absence of a Milk Technician.)
   b. If unopened milk is brought in to the bedside that will thaw or expire before it is used, place it in the milk freezer. In the ICN, log it into the Milk Freezer Log.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

IDENTIFICATION OF BREAST MILK

1. RN responsibility: confirm all containers of MBM have been labeled correctly at the time received.
    a. If a MBM container is not labeled correctly with an electronic milk tracking label and pump date and time, do not feed it to the infant.
    b. Check each milk container label against the label on the patient's milk storage bin/ closed zip top plastic bag.
2. Storing MBM in unit-based milk refrigerators and milk freezers:
    a. Use a separate storage bin with lid (or closed zip top plastic bag) for each mother's milk (per license requirement).
    b. Place labels with patient's last name written in bold capital letters and patient's breast milk labels on multiple sides of the bin and lid (or closed zip top plastic bag).
    c. When there is more than one infant on the unit with the same / similar last name, specifically flag bins to "name alert" staff.
3. MBM stored in the ICN milk freezer is **required** to be logged in and out of the electronic milk inventory system.
4. Combine milk for multiples into the same bin with each infant's breast milk label placed on each bottle, and on each storage bin. (Example: one bin for triplets contains all three babies' ID labels on the outside of the bin, and milk inside the bin contains all three babies' ID labels on each container).
    a. If each of the triplets has a different MBM fortification order, the milk technician then labels each per the specific triplet's fortified milk order.
5. Limit distractions or handoffs during times when feedings are being prepared or administered.
6. Scan infant's ID first, then scan the breast milk label for validation via the EHR.
7. Perform the "5 Rights," checking against the provider order.
    a. Patient ID by scanning
    b. Amount
    c. Route
    d. Time/frequency
    e. Type of feeding and container expiration by scanning
8. DBM feedings:
    a. DBM is distributed by the milk technician, who affixes a breast milk label that is associated with the original DBM bottle lot number. Scan infant ID and breast milk label as with MBM. Document DBM as the feeding type.
    b. **In absence of a milk technician**, log out the specific bottle of frozen DBM on the DBM Milk Log located in the ICN Milk Room. Each bottle is identified by its lot number. Fill out the log row completely.
9. Continuous feedings and feedings on pumps: Place breastmilk label directly on the oral syringe or feeding bag where it is visible while being infused.
10. Infant admitted to unit from outside with frozen MBM containers: Admitting RN is responsible for coordinating labeling / re-labeling of incoming MBM with current UCSF breast milk labels.
    a. Ensure original pump date and time remain visible on milk containers.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

b. For a UCSF readmission with previously UCSF-labeled MBM containers: relabel each container with breast milk labels for the current admission.
c. Ensure frozen breast milk does not thaw.
    i. Milk that is unopened and more than 50% icy can be refrozen. Milk that is less than 50% icy will expire 24 hours from complete thaw time.
    ii. If needed, put all frozen milk containers into a zip top plastic bag, clearly label bag with patient name and current UCSF breast milk labels, then place in freezer until relabeling occurs.
d. Never place breast milk in patient milk bin until containers have been relabeled with current UCSF breastmilk labels which match those on the bin and lid.

11. Infant transferred to another BCH unit or another hospital:
    a. Breast milk must only be handled by milk technicians or RNs.
    b. Only RNs provide MBM to the transport team.
    c. Document location of MBM in the EHR Transfer Navigator under Patient MBM.
    d. Document in EHR Discharge Navigator under Patient MBM.
12. Infant discharge:
    a. From **non-ICN** units, a 2-RN independent check of breast milk containers is necessary when a RN is preparing milk for discharge home.
    b. From **ICN**, contact the milk technician to check milk inventory and log out milk for discharge.
        i. Only RNs provide MBM to parents.
        ii. In absence of the milk technician, log out all patient's milk from milk freezer and collect MBM from bedside milk refrigerator.
        iii. Document in EHR Discharge Navigator under Patient MBM. Only an RN is to provide the MBM to the parents.

STORAGE OF BREAST MILK

1. Collect drops or mLs of breast milk in enteral syringes or have mother express milk into hard plastic (clear/cloudy) bottles made for breast milk storage.
    a. Provide mothers an anticipated supply of appropriately sized, hard plastic breast milk collection containers and breast milk labels.
    b. Encourage mothers to pump and store breast milk directly into 2 or 4 oz. sterile bottles provided by the hospital. These bottles have a standard thread that fits into any hospital pump kit. Valuable milk fats may adhere and be lost with each transfer between plastic containers.
2. Ensure breast milk container is properly labeled.
    a. Provide mothers an anticipated supply of breast milk labels and pen for properly labeling their MBM.
    b. Teach mothers to label each breast milk container with the date and time it was pumped (which is required for staff to receive the milk).
3. RN responsibility: When MBM is received from parents track it as "Received" into the Timeless Tracking system then place it into the milk refrigerator or freezer based on the guidelines for Expiration Times for Inpatient Infant Feedings (see Table 1).

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Table 1: Breast Milk Expiration Times for Hospitalized Infant Feedings

	Fresh MBM	Thawed MBM	Thawed Pasteurized DBM	Any Fortified Milk	Formula
Warmed or Partially-Fed	ALL warmed or partially-fed infant feedings expire in 1 hour.				
At Room Temperature	4 hours	Keep milk refrigerated until ready to use.			RTF 4 hours
Refrigerated	48* hours	24 hours	48 hours	24 hours	24 hours
Freezer	Hospital Freezer : 12 months	Milk more than 50% frozen (icy)= can refreeze. Milk more than 50% thawed= do not refreeze.		Never	Never

***For hospitalized infants, fresh breast milk may be kept in the milk refrigerator for infant feeding up to 96 hours only if the fresh milk:**

- Is not going to be fortified.
- Container will be opened just once at the time of infant feeding.

4. When fresh milk is to be fortified, it needs to be in the milk technician's possession within 48 hours of being pumped in order for it to be prepared under a laminar hood using aseptic technique, delivered, stored, and fed within the 96-hour fresh milk expiration window.
5. Moving milk in or out of milk refrigerators and freezers:
    a. When the refrigerator or freezer is used to store more than one mother's breast milk at a time, ensure each mother's milk is stored in a separate, closed, clearly-labeled patient milk bin. (See Identification of Breast Milk.)
    b. Check breast milk label on each milk container against patient ID on milk bin.
    c. Track movement of MBM in and out of milk refrigerators and freezers in the Timeless Tracking system.
6. Use, freeze, or discard all milk within the specific container's expiration date and time. (See Table 1.)
7. Combining fresh expressed milk from two different pump times into one container: default the expiration time for the combined volume to that of the oldest milk.
8. Milk storage bin cleaning requirements and responsibilities:
    a. Clean all milk storage bins thoroughly between patient uses or when soiled. Use hospital-approved food-grade disinfectant wipes.
    b. **Non-ICN** units – RN responsibility:
        a. Clean bins promptly whenever visibly soiled by milk. (Disinfectant wipes located in all Milk Pantries.)

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

b. Clean bins and lids thoroughly with soap and water when patient use discontinued. Remove all previous patient ID labels.

d. **ICN** – role responsibility:

i. RNs: Clean inside of penguin refrigerator drawers promptly whenever visibly soiled by milk.

ii. Environmental Services: Clean penguin refrigerator drawers thoroughly when patient room is vacated.

iii. Milk technician: Clean freezer bins and lids in Milk Room between patient uses.

9. Education - **Teach mother/parents to:**

a. Store milk in hard plastic enteral syringes or bottles (made for breast milk storage) and provided by hospital. Plastic milk storage bags are discouraged for use in hospital.

b. Label each MBM container clearly with a breast milk label, and date and time pumped. Without a proper label, milk cannot be stored and fed.

c. Combine as needed: Milk expressed from one pump session can be combined into one bottle/syringe/vial.

d. Label combined milk container properly: Fresh expressed milk from two separate pump times combined into one bottle – expiration time for the combined volume defaults to that of the oldest milk.

e. Notify clinical RNs of milk needing to be stored (since parents do not have access to designated milk refrigerators or freezers).

f. Use milk refrigerators only for patient breast milk and formula.

g. Follow guidelines for Expiration Times for Hospitalized Infant Feedings. (Table 1.)

h. Transport pumped MBM to and from home:

i. Bring fresh MBM on ice or with a cold pack if it will be used within 48 hours of pumped time.

ii. Freeze milk if it may not be used within 48 hours of pumped time. It can be thawed and used when needed.

i. Transport frozen milk to and from the hospital in an insulated cooler/bag.

i. Use frozen commercial cold packs for frozen milk rather than ice.

ii. Ice thaws more quickly than frozen MBM, so ice can contribute to milk thawing.

iii. Fill empty space in cooler/bag with paper or blankets to avoid warmer circulating air.

j. Inform the lactation consultant or Social Worker if mother desires to donate milk to the (accredited) San Jose Mothers' Milk Bank.

HANDLING & PREPARATION OF BREAST MILK

1. Prioritize infant feeding types, whenever possible:

a. Colostrum (first 5 days of milk production)

b. Fresh milk

c. Frozen milk (use earliest dates first)

d. Donor milk

e. Formula

2. Breastmilk fortification is **only** done in the ICN Milk Room by a milk technician, per current order, under a laminar hood, and using aseptic technique.

- Contact the charge RN for urgent needs.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

3. Limit handoffs/distractions during times when infant feedings are being prepared and administered. Maintain chain of custody and verify all "5 Rights" BEFORE any required handoffs.
    - Do not leave breast milk at bedside with the intention of checking patient ID and breast milk label at a later time.
4. Handle each breast milk feeding like a medication. Check the **5 Rights** against current EHR order:
    a. Scan patient ID for correct patient.
    b. Check milk expiration.
    c. Check ordered feeding type, amount, route, and timing.
    d. Then scan the MBM/DBM breast milk label.
        - Scanner will trigger an alert for wrong milk.
5. Thawing and using frozen MBM/DBM:
    a. Write thaw date and time on milk label.
        - Thaw time is the point at which previously frozen milk has no more ice and milk is still chilled.
    b. Use or discard thawed MBM within 24 hours of thaw time.
    c. Use or discard thawed DBM (pasteurized) within 48 hours of thaw time.
    d. Do not refreeze thawed milk.
    e. Partially thawed MBM/DBM – if:
        - Unopened and more than 50% ICY, it can be refrozen.
        - More than 50 % liquid do not refreeze.
    f. For future use: store (in refrigerator) only unused, cool, thawed milk with a certain thaw time marked on container.
    g. If thaw time is uncertain, discard milk.
6. Preparing infant feedings:
    a. Use aseptic technique when transferring breastmilk from one container to another, combining contents of multiple containers, or adding a medication / additive to a feeding.
        - Reduce container and nipple/cap contamination: cover immediately with appropriate cap or nipple after pouring desired amount of milk. Leave protective cover intact until ready to feed.
        - Never return breast milk / formula to a bulk container; discard it instead.
    b. **Non-ICN** units – Prepare feedings in the Milk Pantry.
        - Clean counter with sanitizing wipe, allow to dry for 3 minutes, then place waterproof pad on surface. Perform hand hygiene and don gloves.
    c. **ICN** – Prepare infant feedings at bedside.
        - Clean countertop with sanitizing wipe, allow to dry for 3 minutes, then place waterproof pad on surface. Perform hand hygiene and don gloves.
7. Warming MBM/DBM:
    a. Note: Fresh pumped MBM at room temperature does not need to be warmed.
    b. Do not leave refrigerated breastmilk on counter to bring to room temperature.
    c. Limit warming time for oral / bolus feedings to **15 minutes**.
    d. Feed milk within **1 hour** once it is warmed. Discard what is not used.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

e. Warm milk to room temperature in a water-free bottle warmer or in a clean warm water bath. If using a warm water bath:
   - Ensure water temperature is comfortable to the touch.
   - Place milk container into a zip-top bag before placing it into water bath or keep water level below nipple ring /container cap.

f. Waterless electric milk warmer liners to be changed **every 12 hours.**

8. Changing or combining infant feeding containers: Perform a 2-RN Check (required).
9. Unlabeled or incorrectly labeled MBM container (breast milk label; pump date and time): Do not feed to hospitalized infant.
10. Adding substances (by RNs) to milk: Write name of any additives/medications on label.
11. Administering non-bottle MBM/DBM feedings: Use enteral feeding syringes, tubing, and pumps.
12. Administering enteral MBM/DBM feedings:
    a. Change syringe and tubing, or bag and tubing, **every 4 hours**.
    b. Give only warm bolus feeds to preterm infants.
    c. Continuous feedings are not usually warmed; warming can contribute to bacterial growth.
    d. Position oral syringe pumps below the level of the baby with tip pointed up at a 90-degree angle to prevent fat loss.
    e. Do not add colorants to milk except per provider and occupational therapist guidance/order.
13. Infant admitted to unit from outside with frozen MBM: Admitting RN is responsible to coordinate re-labeling of incoming MBM with current UCSF breast milk labels.
    - Ensure frozen breast milk does not thaw.
      - Milk that is unopened and more than 50% icy can be refrozen. Less than 50% icy will expire from complete thaw time.
    - If needed, put all frozen milk containers into a zip top plastic bag, clearly label bag with patient name and current UCSF breast milk labels, then place in freezer until relabeling occurs.
14. Education
    a. **Teach mother/parents to:**
       i. Never use a microwave oven to warm MBM / formula.
          1. Microwaving milk can create dangerous hot spots within the bottle that can burn the infant, and it can damage human milk components.
       ii. Expect breast milk to naturally separate. Gently swirl to mix it. Do not shake.

MONITORING MILK REFRIGERATORS & FREEZERS

1. Set appropriate temperature ranges, continuously monitor temperature of refrigerators/freezers, and respond to alerts as stated in Critical Point Monitoring Milk Referigerators and Freezers. (Refer to Nursing policy Automated Temperature Monitoring)
2. Follow an emergency freezer algorithm for handling milk while addressing equipment issues.
   a. Continued freezer malfunction, or if defrosting needed: Consider bringing a back-up freezer into the unit.
      - Keep freezer doors closed as much as possible. Milk may stay frozen for 3 hours.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

b. Back-up freezer unavailable – charge RN's arrangement options:
- Move milk from freezer to a freezer in another BCH unit if there is enough room. Contact the charge RN in the other unit(s).
- Other units' freezer space unavailable: Keep milk in individual bins on a covered cart.
- Consider storing milk temporarily in a clean freezer in the hospital with adequate space and protection.
- Alternative acceptable hospital freezer unavailable: place milk in styrofoam bins, cover with dry ice, and loosely fit lids on top (to vent dry ice).
  - ❖ Obtain dry ice at Mission Bay (in an emergency): Contact Clinical Lab/ Central Processing Mission Bay, Gateway Building, M2339

EXPOSURE INFANT RECEIPT OF WRONG MATERNAL BREAST MILK

1. **The procedure and documentation process is to complete the checklist contained in** Appendix A**.**
   - The checklist outlines activities associated with each responder type.
   - Each box **"□"** represents a task requiring completion.
2. When tasks are completed in each section the responder contacts the charge RN/ designee of the unit of the exposed patient who will keep track of checklist completion.
   - Donor provider refers to the provider of the baby whose mother's milk was exposure to the recipient baby.
   - Recipient provider refers to the provider of the baby who was exposed to the wrong milk.

Troubleshooting

Problem	Action
Education & Support for Lactating Mothers	• For breast pump set up and problem solving, refer to both sides of the English and Spanish Instruction Cards hanging from the pump. Contact Lactation staff if cards are missing. • One View Educational Videos offer brief educational videos for families and professionals. • Lactation RNs are available for consultation for □ • Well Baby Nursery, Postpartum and Antepartum units: contact Birth Center Lactation via Voalte @ Birth Center Lactation. • ICN, ED, and all other BCH units: request a Lactation consultation via the EHR under Manage Orders. Include infant's name, bed location, age, diagnosis, and reason for consult.
Donor Breast Milk	• Clinical RNs need to notify the milk technician of DBM volume needed for delivery/ pick up every 48 hours. • Original DBM bottle is no longer needed for scanning: milk technician provides an electronic breast milk tracking label with a barcode for scanning prior to administration.
Storage of Breast Milk	• MBM storage for NON-patient use: Inform family to store MBM in their own cooler at the bedside and take it home when leaving for the day. (Family is responsible for the cooler.)

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

	• Frozen milk is unopened, but has begun to thaw: • More than 50% frozen (icy) milk can be refrozen. • More than 50% liquid milk cannot be refrozen and will need to be used or discarded within 24 hours for MBM and 48 hours for DBM. • Milk CANNOT be stored or fed to a hospitalized infant if: • It is not labeled with a breast milk label, date and time pumped. • Thaw time is not certain. • Previously frozen milk arrives thawed and no longer cold. • Milk container is broken or not sealed. • It is in a container not made for storage of human milk. • In a reused unit dose glass formula bottle (because heating may weaken bottle structure). • When in doubt, contact a BCH Lactation Consultant or milk technician.

References

Level of Evidence (FAME*)	Level*	Reference
	E4	Lawrence, R. A., & Lawrence, R. M. (2011). *Breastfeeding: A guide for the medical profession* (7th ed.). Elsevier Mosby.
	E4	Wambach, K. & Riordan, J. (2016). *Breastfeeding and human lactation* (5th ed.). Jones & Bartlett.
	E4	Robbins, S. &, R. Meyers (2011). *Infant feedings: Guidelines for preparation of formula and breastmilk in health care facilities* (2nd ed.). American Dietetic Association.
	E4	Centers for Disease Control and Prevention. (2022, March 2). *What to do if an infant or child Is mistakenly fed another woman's expressed breast milk.* https://www.cdc.gov/breastfeeding/recommendations/other_mothers_milk.htm
	E4	Center for Disease Control and Prevention. (2021, August 10). *Maternal or Infant Illnesses or Conditions.* http://www.cdc.gov/breastfeeding/disease/index.htm
	E4	The National Institute for Occupational Safety and Health. (2016, September 6). *Bloodborne infectious diseases: Universal Precautions*. https://www.cdc.gov/niosh/topics/bbp/universal.html

* FAME Scale details: See nursing policy *Policy, Procedure, & Competency Development, Review, & Approval*

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Procedure History

Author:	Original procedure “Breastfeeding & Breastmilk Procedures”: Fritzi Drosten, RN, IBCLC, CNIII; Maria Hetherton, RD, CSP
Originated:	Original 3/04 (“Breastfeeding & Breastmilk Procedures”)
	Original Reviewed/Revised:
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	10/10 Fritzi Drosten, RN, IBCLC, CNIII; Maria Heatherton, RD, CSP; Dawn Ready, RN, IBCLC
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Reviewed / Revised:	6/14 This procedure split from original: Fritzi Drosten, RN, IBCLC, CNIII; Linda Lefrak, RN, MS, CNS
	11/14 Shelley Diane, RN, MS, CNS (Section IV, only)
	12/14 Kim Johnston, RNC; Diane Von Behren, RN, MSN
	11/16 Tonja Kearney, RN, IBCLC; Kim Johnston, RNC
	9/17 Tonja Kearney, RN, IBCLC (Section VII, only)
	10/17 Tonja Kearney, RN, IBCLC; Jessica Hale, RN, MS, IBCLC;
	2/18 Tonja Kearney, RN, IBCLC (Section VII, only; word edit)
	4/18 Jessica Hale, RN, MS, IBCLC
	6/18 Jessica Hale, RN, MS, IBCLC (Section VI, Appendix G only)
	3/22 Valerie Bednar, MA, BSN, RN, CCRN (Temp Monitoring Content focused)

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix A: Infant Receipt of Wrong Maternal Breast Milk – Multidisciplinary Response & Checklist

All staff are responsible for maintaining confidentiality of each patient and mother at all times.

Checklist directions for each discipline responder:

- Each box represents a task requiring completion.
- When your task list is completed communicate it directly to the Nursing Supervisor.

1. **CLINICAL RN who identifies wrong milk was given**
   - □ Do not attempt to remove the milk from the recipient infant's stomach even if a feeding tube is already in place as the suction may increase risk of exposure.
   - □ Immediately notify the Charge RN.
   - □ Maintain confidentiality of both the recipient and donor patients and families.
   - □ Complete an Incident Report.
   - □ Notify the Charge RN/management designee of the Incident Report number.

2. **CHARGE RN/ UNIT DESIGNEE**

   Is in charge of assuring all aspects of the checklist are completed.
   - □ Notify the Unit Director / Nursing Supervisor if a different RN other than the charge RN is designated to coordinate activities of the Multidisciplinary Checklist.
   - □ Notify the Unit Director during business hours, or Nursing Supervisor during non-business hours, of the event.
   - □ Notify the Donor Provider of the event.
   - □ Notify the Recipient Provider of the event.
   - □ After providers have communicated with the families and have documented a treatment plan in the EHR, the social workers for both the donor and recipient families should be notified to offer support to the families secondary to the milk exposure.
   - □ Print the following Appendixes:
     - 4 Copies of Appendix A: Infant Receipt of Wrong Maternal Breast Milk – Multidisciplinary Response & Checklist.
       - 1 copy for the Charge RN/Management Designee which will be updated as master checklist of activates completed
       - 1 copy for the Unit Director or Nursing Supervisor as a reference
       - 1 copy for the Donor Provider as a reference to the response process
       - 1 copy for the Recipient Provider as a reference to the response process
     - 2 Copies of Appendix B: Information for Healthcare Providers: Low Risk of Infection Transmission via Human Milk
       - 1 copy for the Donor Provider
       - 1 copy for the Recipient Provider
     - 1 Copy of Appendix C: Information for Parents: When Your Milk is Given to Another Mother's Baby
       - 1 copy for the Donor Provider to give to the donor mother
     - 1 Copy of Appendix D: Information for Parents: When Your Baby Receives Another Mother's Milk

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

- 1 copy for the Recipient Provider to give to the recipient mother

□ Update master checklist as activities are checked off for each disciple involved (Appendix A: Infant Receipt of Wrong Maternal Breast Milk – Multidisciplinary Response & Checklist).

- Each discipline reports completion of their checklist tasks to the Charge RN/Management Designee.
- Most tasks on the checklist are to be completed the day of the incident.
- Provide master checklist to the Unit Director for follow up on outstanding tasks.

3. **UNIT DIRECTOR (during business hours) or NURSING SUPERVISOR (during non-business hours)**

□ During business hours notify: On-call Infection Control Practitioner (ICP) at 415-806-0269. ICP will contact the Hospital Epidemiology and Infection Control (HEIC) Director and the HEIC Medical Director.

□ During non-business hours: Nursing Supervisor contacts the HEIC Director. The HEIC Director will contact the HEIC Medical Director.

□ Notify Risk Management at 415-353-1842. Be prepared to provide:

- Incident Report number
- Two patient identifiers for the baby of the donor mother and the donor mother if available.
- Two patient identifiers of the recipient patient.

□ Notify Exposure Hotline at 415-353-7842 that a "Breast Milk Exposure" has occurred. The Hotline operator should take down information and contact a clinical responder who will contact the reporter of the event. Be sure to give the operator the reporter's name and contact information.

- Provide Exposure Hotline Clinical Responder with:
  1. Telephone contact number Patient Care Manager/ Nursing Supervisor
  2. Work email address where the lab requisitions can be sent
  3. Contact information for the Donor Provider and the Recipient Provider.

□ When the Hotline Clinical Responder sends requisition forms for laboratory tests of the donor mother and recipient baby:

- Print the lab requisitions emailed by the Exposure Hotline Clinical Responder.
- Ensure the orders for the laboratory blood tests are on the printed hardcopy requisitions.
- Place a patient label sticker on laboratory requisition for the recipient baby.
- Write donor mother's name on the laboratory requisition for the donor mother.
- Ensure the blood is drawn per the Exposure Hotline Clinical Responder's instructions.
  - Ensure blood specimens ordered for the recipient baby and the donor mother are sent to the Blood Gas Lab for processing. Donor mother labs are sent as "STAT" priority.
  - Recipient baby labs are timed per the Exposure Hotline Clinical Responder's recommendations.

□ Ensure appropriate medical follow-up has been arranged and communication with the recipient baby's primary outpatient provider has occurred by the HEIC Medical Director or the Recipient Provider.

□ Follow up on any outstanding activities listed on the Master Checklist started by the Charge RN/Unit Designee.

□ Arrange remedial training as needed as follow-up to the event.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

4. **HEIC MEDICAL DIRECTOR**
   - ☐ Collaborate with the Donor Provider, Recipient Provider, and Exposure Hotline Clinical Responder to ensure:
     - Investigation of exposure risk for blood borne infection of the recipient baby.
     - Plans are completed for initial testing and treatment interventions.
     - The following are recommendations for blood borne pathogen testing for donors and recipients:
       1. HIV 1/2 Ag/Ab
       2. Hep B surface Ag/core Ab/surface Ab
       3. HTLV 1/2 antibody
       4. Hep C antibody
       5. Consideration for CMV testing
     - Initial and follow-up of testing and treatment are completed.
     - Communication has occurred with the recipient outpatient primary provider.
   - ☐ Communicate with the Charge RN/Unit Designee when HEIC Medical Director tasks listed on the Multidisciplinary Response Checklist are completed.

5. **DONOR PROVIDER** or designee
   - ☐ Review: Appendix B: Information for Healthcare Providers: Low Risk of Infection Transmission via Human Milk
   - ☐ Collaborate with the HEIC Medical Director and Exposure Hotline Clinician Responder to evaluate the blood borne infection risk from the donor mother's milk.
     - Review any available records for the donor mother.
   - ☐ Develop a testing plan in consultation with the HEIC Medical Director.
     - Contact the donor mother/family to disclose the event of the milk exposure to another patient and the need for testing.
     - Request donor mother's consent to draw ordered laboratory test.
       - Use the printed lab requisition from the Exposure Hotline Responder emailed to the Unit Director/ Nursing Supervisor.
       - Ensure donor mother's blood draw as a "STAT Priority" in order to give Hepatitis B vaccine and HBIG, if indicated, to the recipient infant within 12 hours of the milk exposure.
     - If donor mother declines to have her blood tested, document her decision in the medical progress notes of both the recipient baby and donor mother infant patient. Communicate donor mother's declination to be tested to the following:
       1. Unit Director and Charge RN/Management Designee
       2. Recipient baby Provider
       3. HEIC Medical Director
       4. Exposure Hotline Clinical Responder (Note: do not contact Hotline Operator)
       5. Risk Manager
   - ☐ Request permission to access prior blood born pathogen testing for the donor mother.
   - ☐ Review and give donor mother/family a copy of: Appendix C: Information for Parents: When Your Milk is Given to Another Mother's Baby

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

- ☐ Document the wrong milk exposure incident, test, and treatment plan and all related discussions in the donor mother EHR without identifying the recipient baby. If the donor mother has no UCSF EHR then document in the donor mother baby's EHR.
- ☐ Communicate with the Charge RN/Unit Designee when the Donor Provider tasks listed on the Multidisciplinary Response Checklist are completed.

6. **RECIPIENT'S PROVIDER** or designee:
   - ☐ Review: Appendix B: Information for Healthcare Providers: Low Risk of Infection Transmission via Human Milk
   - ☐ Collaborate with the HEIC Medical Director, Exposure Hotline Clinical Responder, and Donor Provider to evaluate blood borne infection risk factors for the recipient patient.
   - ☐ Contact the recipient baby's family regarding:
     - Disclosure of occurrence of their infant receiving another mother's milk.
     - Need for testing.
     - Permission to request the vaccination record for the recipient if not available in the UCSF medical record.
   - ☐ Give "recipient" family a copy of: Appendix D: Information for Parents: When Your Baby Receives another Mother's Milk
   - ☐ Develop a testing and treatment plan in consultation with the HEIC Medical Director.
   - ☐ Request the recipient parent's consent to draw the ordered blood labs from the recipient baby.
     - If recipient family declines to allow the recipient baby to be tested or treated, document recipient family's decision in the EHR for the recipient patient and the donor mother's EHR to reflect the decision. If the donor mother has no UCSF EHR then document in the donor mother's baby's EHR.
     - Declination decision will be communicated to the following:
       1. Patient Care Manager
       2. Donor Provider
       3. HEIC Medical Director
       4. Exposure Hotline Clinical Responder (note; do not contact the Hotline Operator)
       5. Risk Manager
   - ☐ Arrange for the recipient patient's blood draw according to the Exposure Hotline Responder's recommendations. Goal is to give the Hepatitis B vaccine and HBIG, if indicated, within 12 hours of milk exposure.
   - ☐ Document the incident, treatment plan, and all related discussions in the recipient infant's EHR without identifying donor mother's name.
   - ☐ Coordinate follow-up testing and treatment with baby's primary care provider.
   - ☐ Communicate with the Charge RN/Unit Designee when the Recipient Provider tasks listed on the Multidisciplinary Response Checklist are completed.

7. **EXPOSURE HOTLINE OPERATOR**
   - ☐ Record the call as a "breast milk exposure".
   - ☐ Obtain contact information for:
     - Unit Director/ Nursing Supervisor/ Designee, including email

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

- Attending Physician of the donor mother
- Attending Physician of the exposure or recipient patient

□ Notify the Exposure Hotline Clinical Responder and provide the above list of contact information.

8. **EXPOSURE HOTLINE CLINICAL RESPONDER**
   - □ Collaborate with the Donor Provider, Recipient Provider, and HEIC Medical Director to develop a treatment and/or testing plan for the Donor mother and recipient baby.
   - □ Confirm consents are obtained prior to blood borne pathogen testing.
   - □ Obtain the contact email or fax number for forwarding the requisition forms for laboratory testing of the donor mother and recipient baby.
   - □ Send requisitions with the appropriate lab tests to the Unit Director, Nursing Supervisor, or unit designee.
     - Testing is provided as per Infection Control Policy 3.3 Management of the Health Care Worker (HCW) Exposed to Blood borne Pathogens (See HEIC Manual).
     - Costs for testing, counseling, and treatment are paid for by the Medical Center.
   - □ Follow-up with the laboratory to ascertain the donor mother's and recipient baby's test results within 12-24 hours of exposure.
   - □ Discuss test results with the Donor and Recipient Providers.
   - □ Report lab results to Risk Management with patient identifiers for both the donor mother and recipient baby.
   - □ Communicate with the Charge RN/Unit Designee when the Recipient Provider tasks listed on the Multidisciplinary Response Checklist are completed.

9. **RISK MANAGEMENT**
   - □ Consult as needed for disclosure to donor mother, recipient parent/family or patient.
   - □ Risk Management will assist in determining bill waiver or reimbursement for outside testing.
   - □ Interface with the family over time for risk mitigation.

10. **SOCIAL WORKERS** assigned to recipient and donor cases:
    - □ Provide support to donor or recipient families after Attending Providers have communicated with the families about the exposure and testing/treatment plan.
      - Communicate any significant information to the Unit Director / Charge RN/ Unit Designee.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix B: Information for Healthcare Providers: The Low Risk of Infection Transmission via Human Milk

Although human milk has the potential to carry both viruses and bacteria, the majority of human milk poses no infectious risk. However, possible exposure to some viruses is of concern.

Cytomegalovirus (CMV)

The risk of CMV transmission from a single accidental exposure to CMV-positive expressed breast milk is extremely low.

- The majority of women are CMV positive by childbearing age, and CMV can be transmitted through breast milk.
- The risk for CMV in a full term, healthy infant is low. Premature/ LBW infants are at a greater risk of developing disease from CMV infection.
- Freezing expressed breast milk for 3-5 days decreases infectivity of CMV.
- Immunologic components are also present in breastmilk.
- The risk for CMV transmission from a single accidental exposure to CMV-positive expressed breast milk is extremely low.

Hepatitis B (HBV)

Hepatitis B is not spread by breastmilk but is spread by blood. All infants born to Hepatitis B-positive women receive Hepatitis B vaccine and Hepatitis B immune globulin (HBIG) within 12 hours after birth. With this prophylaxis begun, Hepatitis B-positive mothers are encouraged to breastfeed.

- Since HBV is spread via blood, all HBV positive mothers are educated to take good care of their nipples to avoid cracking or bleeding, and to dispose of any milk expressed from a cracked, bleeding or scabbed nipple.
- Treat HBV-exposed infant within 12 hours of the exposure.
- Follow vaccines for Hepatitis B: Second dose at 1-2 months and third dose at 6 months. The infant should be tested after completion of the vaccine series at aged 9-18 months/ next Well –Child Visit.

Hepatitis C (HCV)

Studies have not found HCV to be transmitted through breast milk. However, like HBV it is transmitted infected blood.

- HCV does not have a documented effective form of prevention or acute treatment; testing is not warranted.
- Since HCV is spread via blood, all HCV positive mothers are educated to take good care of their nipples to avoid cracking or bleeding, and to dispose of any milk expressed from a cracked, bleeding or scabbed nipple.

West Nile Virus (WNV)

West Nile Virus infection in lactating women is rare.

- WNV does not have a documented effective form of prevention or acute treatment; testing is not warranted.

Human Immunodeficiency Virus (HIV)

The risk of acquiring HIV is extremely low for any infant receiving a single feeding from another mother's milk.

- The incidence of HIV infection in the general population in North America is very low.
- In developed countries, all pregnant women are screened for HIV, and HIV–positive women are counseled not to breastfeed.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

- In developing countries, seronegative infants of HIV-positive mothers who breastfeed have an estimated 16% increased risk of sero-conversion to positive status.
- The risk of HIV transmission is relative to increased volume and duration of breastmilk feeding.
    - By 2 months of age the average infant has received 400 to 500 feedings.
    - The actual risk for transmission of an infectious agent to an infant via a single feeding of expressed breast milk from another mother is extremely low.
- Immunologic components in breast milk, along with time and cold storage, can inactive the HIV in expressed breast milk.
- Transmission of HIV from a single breast milk exposure has never been documented.

Human T-Lymphotropic Virus (HTLV)

The risk of acquiring HTLV is extremely low for any infant receiving a single feeding from another mother's milk.

- Human T-lymphotropic (HTLV) is very rare in North America. Mom common in Japan, Africa, the Caribbean, and South America.
- Freezing and thawing of expressed breast milk decreases the he infectivity of HTLV-I
- However, since HTLV can be transmitted in human milk, and can cause serious illness it is important to include this test in any screening when a baby has unintentionally received another mother's milk.
    - Since HTLV is rare in Northern America, if a mother does test positive, suspect a false positive and retest with both antibody and polymerase chain reaction (PCR) testing.
- The risk of HTLV-I/II transmission, like HIV, is relative to the volume and duration of breastmilk feeding, so risk of transmission is extremely low.
    - By 2 months of age the average infant has received 400 to 500 feedings.

In summary, the risk of transmission of infectious agents via human milk is low even when an infected mother is exclusively breastfeeding her own child for several months. The actual risk for transmission of an infectious agent to an infant via a single feeding of expressed breast milk from another mother is exceedingly low.
https://www.cdc.gov/breastfeeding/disease/hepatitis.htm

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix C: Information for Parents: When Your Milk is Given to Another Mother's Baby

What has happened?

Our policy is to give each baby only his or her own mother's expressed milk. Rarely, one mother's milk is accidentally given to another mother's baby. We are sorry that your milk was given away and that your baby will not be able to have that milk. We realize that having a baby in the hospital can be stressful, and we apologize for any additional stress this may cause you.

What are the risks to another mother's baby from receiving your milk?

It is rare for human milk to cause any problems for another mother's baby. Human milk can contain bacteria and viruses, most of which cause no problems for any baby. The viruses that cause the most concern are HIV and HTLV. Some people also worry about Hepatitis B and C. Here are some facts about each of these infections, as they relate to breastfeeding.

Hepatitis B

- Babies born to mothers known to carry hepatitis B are given hepatitis B vaccine and hepatitis B immune globulin (HBIG). These shots are given to make sure the baby does not get sick from exposure during pregnancy.
- Studies show that babies of mothers who are hepatitis B-positive do not have a higher risk of becoming infected by breastfeeding. Hepatitis B is transmitted by blood. If you have a cracked, scabbed or bleeding nipple your milk should be disposed of from that breast until the nipple is healed.
- If you are hepatitis B-positive and the mother of the baby who received your milk is not, the baby who received your milk can be treated as a precautionary measure.

Hepatitis C

- Studies show that breastfed babies of mothers who are hepatitis C positive do not have a higher risk of becoming infected by Hepatitis C.

Human Immunodeficiency Virus (HIV)

- There are no reports of babies becoming infected with HIV from another mother's milk.
- Breastfed babies whose mothers are HIV-positive may become infected after weeks /months of breastfeeding, rather than after just a few feedings.
- If you were known to be HIV-positive, you would have been encouraged not to breastfeed.

Human T-Lymphotropic Virus (HTLV)

- HTLV is very rare in North America.
- Testing is done for HTLV because it is known to be transmitted in human milk, but as with HIV, babies have only been known to become sick with regular and repeated feedings from an infected mother.

Other infections

- Human milk can contain viruses (such as cytomegalovirus, or "CMV"), and bacteria (such as group B streptococcus and staphylococcus). However, studies show that most babies receive a range of viruses and

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

bacteria in their milk every day and they do not become sick. Immunological components in breast milk, along with time and cold storage help to protect babies from bacteria and viruses found in expressed breast milk.

What will be done since another baby got my milk?

- Your health care provider will talk to you about what needs to be done, but we will give you a short summary here.
- Tests for HIV, HTLV and hepatitis B will be done on your blood, with your permission, and that of the other baby's mother (and if she wishes, on her baby).
- Your identity will be kept confidential.
- These blood tests are voluntary, but we encourage you to have them for the peace of mind of the other baby's family.
- If you test positive for HIV, both babies will be given drugs to protect against infection with HIV, and additional blood testing will be done.
- If you test positive for hepatitis B:
    - The other baby will be given a hepatitis B vaccine and HBIG to prevent infection, if it was not given at birth.
    - If your baby was not already treated with hepatitis B vaccine and HBIG, he/she will also receive these shots.
- The other baby will be carefully followed for any signs of infection.

What do we do when the wrong milk is given to the wrong baby?

Please understand that we try very hard to prevent this from ever happening. Our system includes a number of checks to avoid any mistakes. We will review all information about the situation very carefully, in case if there is something we need to change to keep this from happening again.

We recognize that this situation involves two families, the one whose milk was given to the wrong baby and the one whose baby received the wrong milk. Again, we apologize for any stress this has caused you. We will do everything possible to protect your privacy and to protect the baby who received your milk. We will make sure that this situation is dealt with quickly and properly. Please feel free to contact_____ at _____ if you have any questions or concerns.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix D: Information for Parents: When Your Baby Receives Another Mother's Milk

What has happened?

Our policy is to give each baby only his or her own mother's expressed milk. Rarely, one mother's milk is accidentally given to another mother's baby. We are sorry that your baby received another mother's milk. We realize that having a baby in the hospital can be stressful, and we apologize for any additional stress this may cause you.

What are the risks to your baby from receiving another mother's milk?

It is very rare for human milk to cause any problems for another mother's baby. Human milk can contain bacteria and viruses, most of which cause no problems for any baby because of human milk's immunologic components. The viruses of most concern are HIV and HTLV. Some people may also worry about Hepatitis B and C. Here are some facts about each of these infections, as they relate to breastfeeding.

Hepatitis B

- Babies born to mothers known to carry hepatitis B are given hepatitis B vaccine and hepatitis B immune globulin (HBIG). These shots are given to make sure the baby does not get sick from the previous exposure during pregnancy.
- Studies show that babies of mothers who are hepatitis B-positive do not have a higher risk of becoming infected by breastfeeding.
- If you are not hepatitis B-positive but the mother whose milk your baby received is positive, your baby can be treated as a precautionary measure.

Hepatitis C

- Studies show that breastfed babies of mothers who are hepatitis C positive do not have a higher risk of becoming infected.

Human Immunodeficiency Virus (HIV)

- Mothers who are known to be HIV-positive are not allowed to breastfeed at this hospital. Milk for a known HIV positive mother would not be stored in the hospital refrigerators/ freezers.
- Breastfed babies whose mothers are HIV-positive may become infected after weeks/months of breastfeeding, not after just a few feedings.
- Transmission of HIV from a single breast milk exposure has never been documented.

Human T-Lymphotropic Virus (HTLV)

- HTLV is very rare in North America.
- Testing is done for HTLV because it is known to be transmitted in human milk, but as with HIV, babies are only known to become sick with regular and repeated feedings from an infected mother.

Other infections

- Human milk can contain viruses (such as cytomegalovirus, or CMV) and bacteria (such as group B streptococcus and staphylococcus). However, studies show that most babies receive a range of viruses and bacteria in their milk every day and they do not become sick.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

- Human milk has factors that help protect babies from getting sick from many viruses and bacteria.

What will be done now, to protect my baby's health?

- Your health care provider will talk to you about what needs to be done, but we will give you a short summary here.
- Tests for HIV, HTLV and hepatitis B will be done on your blood and, if you wish, on your baby's blood.
- The other mother will be urged to have the same tests done on her blood. She will have the right to refuse these tests. If she refuses, your baby's doctor will discuss options with you.
- We are required to keep the other mother's identity confidential, so we are not allowed to tell you whose milk your baby received.
- If either you or the other mother test positive for HIV, your baby will be given drugs to protect against HIV infection, and additional blood testing will be done.
- If you or the other mother test positive for hepatitis B, your baby will receive hepatitis B vaccine and HBIG (if these have not already been given).
- Your baby will be followed carefully for any signs of infection.

What do we do when the wrong milk is given to the wrong baby?

Please understand that we try very hard to prevent this from ever happening. Our system includes a number of checks to avoid any mistakes. We will review all information about the situation very carefully, in case if there is something we need to change to keep this from happening again.

We recognize that this situation involves two families, the one whose milk was given to the wrong baby and the one whose baby received the wrong milk. Again, we apologize for any stress this has caused you. We will do everything possible to protect your baby, and we will make sure that this situation is dealt with quickly and properly. Please feel free to contact_____ at _____ if you have any questions or concerns.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix E: Breast Milk Fridge Information Sheet

To avoid alarms from the breast milk fridges that are a result of improper use by staff, read the information below regarding operation of the breast milk refrigerators located at each bedside.

It is mandatory to store breast milk at the appropriate temperature recommendation. Feeding breast milk that has been stored warmer than the recommended temperature range is dangerous and cause bacterial growth. If a fridge user error is determined, this may result in counseling as this is a violation of hospital policy. Sign and return this form to your preceptor or any assistant unit director.

1. **The drawer on the unit must be completely closed for the unit to cool properly**. The drawer utilizes a latch system. Do not slam the drawer shut as this can permanently damage the Penguin latch. Appropriate ways to ensure closure: Pressing firmly until both sides click, **or** by lifting the handle, closing the drawer, and then releasing the handle to engage the latch...

2. **Appropriate setting for the Penguin fridge dial is between 7 and 9. Do not turn the dial to 10** as this causes the fridge to cool continuously causing damage to its components.

3. **Do not allow parents to access the fridge**. Parents are to hand the milk containers to the bedside nurse so that the milk label can be checked and to assure that the milk is stored properly.

4. **Only milk/formula for the infant is allowed in the fridge.** Do not store medications or other types of food in the fridge. Instruct parents to utilize the parent lounge refrigerator for personal food storage.

5. **Alert the Charge Nurse or Admit Nurse if there is ice buildup in the fridge.** Ice buildup inhibits proper cooling and can potentially damage the unit. It is caused by drawers left open as moisture gets pulled into the unit to be rapidly cooled. The unit must be defrosted as soon as possible.

Water found in the drawer must be emptied out and the desiccant packet in the back of the drawer must be replaced. Extra desiccant packets are found in each zone storage supply room. Date and initial each new packet as they are good for only 1 month or until moisture is found in the drawer.

I acknowledge I have read and understand the above information regarding the proper use of the breast milk refrigerators and understand that repeated misuse may result in action from the administrative team.

_____	_____	_____
Signature	Print Name	Date

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix F: Breast Milk Fortification

Milk Tech will fortify breast milk. In rare occasions, the Charge Nurse may need to fortify breast milk. Here are some simple reminders:

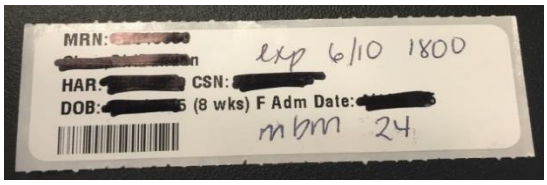
- Milk Room - C3804
- Code on door – 210100
- Upon entering the room - Don bouffant bonnet (cap) & gown, wash hands and don gloves.
- **All fortification needs to be done under the hood.**
- Ensure the hood is on. The hood should always be left on.
- Wipe the counter under the hood with a red-top food-grade sani-wipe; **let it dry for 3 minutes**.

Fortify one patient at a time. Clean counter and wait 3 minutes between patients.

- References: Recipe Book, Breast Milk Freezer Log, and Donor Milk Log are all located on the counter next to the computer.
  - Typical fortification = 1 package HMF/25mL Breast Milk
  - If you have volumes other than 25mL, the Recipe Book tables give exact amounts of fortifier and breast milk needed.
- Complete a Breast Milk Fortification Recipe Form.
  - Blank forms are in the pink hanging file on the wall near the computer
- Check for any fresh milk in the receiving refrigerator prior to going to the freezer.

The receiving refrigerator is located near the computer. The code is 123456-Enter.

- When using frozen milk, log milk out in the Breast Milk Freezer Log.
- Thaw frozen breast milk using the Medela warmer in the Milk Room, liners are located on the top shelf of the wire supply rack.
- Mark any excess thawed milk with the expiration date and time and put it into the fresh (Follett) refrigerator.
- Print label via APEX – document fortification and date/time when it will expire. *Remember – any fortified breast milk expires 24 hours after it is mixed.*



BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix G: Timeless Inventory System

A. Print Collection Labels

Critical Point: Collection labels must be handed to Mother. RN then must ask Mother to read all labels and verify for correct name on **each label**. Do not leave labels at bedside or in a drawer.

1. Log In to Timeless
2. Select 'Print Labels' icon
3. Scan ID
    - For BCH, scan Baby ID
    - For Birth Center, scan Mother ID
4. Select Printer
5. Click 'Next' to print labels
6. Collection labels must be handed to Mother. RN then must ask Mother to read all labels and verify for correct name on **each label**. Do not leave labels at bedside or in a drawer.
7. Educate Mother to write pump date and time on collection label and place Collection label near top of container.

B. Receiving Milk into Timeless Inventory System and Printing 'Receive' Labels

1. Mother will return labeled container(s) with pumped breast milk
    - Mother should provide pumped milk in hard plastic bottles or syringes.
    - If unfrozen milk is in bags, ask mother to transfer milk into hard plastic single-use bottles.
    - If milk is frozen (bags or bottles), follow 'Receiving Frozen Milk' instructions.
2. Select 'Receive Mother's Bottles' icon in Timeless
3. Scan Collection Labels on Bottle(s)
4. Click 'Next' twice
5. Enter data for each bottle: pump date, pump time, volume (in mL NOT ounces), and bottle state (e.g., fresh, frozen or thawed), and location (ICN: refrigerators are listed as zones rather than individual rooms).
    - Be as accurate as possible when entering volume. If it is difficult to estimate volume in the container, err on side of underestimating milk volume.
    - Frozen breast milk must remain at least 50 % frozen to be put back into freezer. If milk is more than 50% liquid, it needs to be used or discarded within 24 hours.
    - If receiving multiple bottles, line up bottles in order of scanning to keep them organized in the labeling process, scan all bottles, and fill in bottle information for EACH bottle.
6. Select 'Apply to All' button to copy the date, bottle state, and location from the first bottle row to all rows below
7. Print 'Receive' bottle label(s)
8. Verify the unique bottle number on Receive label(s) matches number on Collection label(s) and expiration date and time are correct.

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

9. Place new 'Receive' label below the Collection label.
    - For syringes, it is possible to butterfly the labels with Collection label on one side and Receive label behind.
    - For multiple babies, each container should have a Collection and Receive label for each baby affixed to container.

C. Expiration of Fresh Expressed Breastmilk

- Fresh milk that is going to be fed within four hours:
    - Do not receive into Timeless.
    - Place breastmilk label on container and validate in EHR.
- Fresh milk that has been refrigerated needs to be used, frozen, or given to Milk Technician within 48 hours of expression.
- The 96 hour expiration on Timeless label for fresh milk is only applicable to milk processed by Milk Technician using aseptic technique.
- When fresh milk is to be fortified, it needs to be in the Milk Technician's possession within 48 hours of expression in order for it to be prepared using aseptic technique, delivered, stored, and fed within the 96 hour fresh milk expiration time-frame.

D. Fresh Milk Bulk Container

- A bulk container with fresh milk may be used for several feedings within 48 hours from expression and stored in refrigerator.
- If the anticipated 48 hour feeding volume is less than the total bottle volume: separate out anticipated volume from the excess milk into two containers and 'Receive' excess milk into Timeless inventory and place in freezer.
- At 48 hours, any remaining milk in container will need to be frozen.
    1. 'Dispose' bottle in Timeless
    2. Print new Collection label
    3. Print new Receiving label with new volume remaining in bottle
    4. Place in freezer

E. Receiving Frozen Milk

- Milk that has already been frozen for 6 months at home cannot be accepted into Timeless inventory for use while infant is hospitalized.
- Do not place breastmilk inside patient's bin unless it has been received in Timeless first.
- Milk Technicians only receive breastmilk for ICN patients dependent on schedule availability; all other units must receive breastmilk in unit freezers.
- ICN: Take all frozen breastmilk to Milk Technician for receiving so it may weighed to ensure accurate volumes. Place frozen breastmilk into plastic zip-top bag labeled with patient's information and note stating "Not Received".

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

F. Checking Inventory

1. Select 'Find Bottles' tab
2. Scan baby's linear barcode
3. Screen will display location breastmilk for selected patient.

G. Moving Milk

- Move Bottle: Use when moving bottle(s) from freezer to refrigerator. This will cause thawing of the milk, so a new label will be printed with new expiration date & time.
    1. Select 'Move' tab
    2. Scan bottle(s)
    3. Select new location (where milk is moving to)
    4. Click 'Finish'
    5. Affix new label(s) to bottle(s) being moved
- Bulk Move: Use when transferring a patient to another area to move all of the milk at one time.
    - Transfers may occur from one unit to another OR from one zone in ICN to another zone.
    - It is RN's responsibility to bulk move milk between zones as well as between units.
    - Bulk Move requires scanning Baby ID rather than individual bottles because the state of the milk in unchanged. If patient's milk is in two locations, a bulk move will need to be done for each location.
        1. Select 'Move' tab
        2. Scan Baby ID
        3. Select new location (where milk is moving to)
        4. Click 'Finish'
        5. Document milk transfer in EHR Transfer/Discharge navigator

H. Feeding

1. Complete 'Breastmilk Validation' in EHR.
2. Scan baby ID and bottle to serve as double check for right baby/right milk
3. If using DBM, indicate 'yes' and scan Timeless label.
    - This gives a unique Lot Number for DBM. Under Lot Number, SC Number will display. This links DBM Lot Number with patient.
4. Document intake volume in EHR.
5. Scan breastmilk for feeding.
6. 'Dispose' bottle from the Timeless inventory with reason 'bottle has been fed' (subtracts bottle from inventory).

I. Fortified Milk Bulk Container for Multiple Feedings

1. Remove bulk container from refrigerator
2. Complete 'Breast Milk' validation in EHR: Scan baby's ID and bottle label
3. Check expiration date and time
4. Pour amount of feeding needed for this feeding and label bottle with patient's name
5. Return bulk container to refrigerator
6. Continue this workflow for all subsequent feedings until bottle is empty or expired
7. Dispose from Timeless when bottle is empty or expired

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

J. Discharge

- Prior to discharge from hospital, all of patient's breastmilk must be disposed from inventory.
    1. Scan baby ID
    2. Click 'Dispose' in Timeless
    3. Dispose of each bottle individually
    4. Choose "mom and baby have been discharged"
    5. Complete Discharge Navigator in EHR.

K. Linking Twins/Multiples in Timeless

- To see if multiples are linked to the proper Mother:
    1. Click 'Manage'
    2. Select 'Manage Babies'
    3. Find multiple baby names and review if linked to correct Mother
    4. Select 'Cancel'
- To link the baby with the correct Mother:
    1. Click 'Manage'
    2. Select 'Manage Babies'
    3. Identify baby you need to link
    4. Click 'Edit'
    5. Using the drop down menu in column labeled "Mother", select name of correct Mother
    6. Click 'Save'

L. Donor Breast Milk (DBM): **Assigning DBM to Patients**

- **(NOTE: Only ICN Nurses and Milk Technicians can access 'Prepare Bottles' function)**.
    1. Click 'Prepare Bottles'
    2. Scan the frozen DBM
    3. Click 'Next'
    4. Select Baby from the drop down menu
    5. Click 'Next'
    6. Review screen to confirm correct patient is selected
    7. Select 'Split/Combine'
    8. Click 'Next'
    9. Using drop down menu, change number of containers being prepared to '1'
    10. Using drop down menu, select location where DBM will be stored
    11. Place new label with new DBM number and patient's name over old DBM label.
    12. Take entire bottle to bedside regardless of amount needed.
    13. Fill in DBM information (location and volume) for each DBM container. Select action for bottle (prepare another bottle, feed bottle to baby, or reprint bottle information label(s).

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

Appendix H: Pumping Procedure for Mothers with Confirmed or Suspected COVID-19

1. **Daily washing of the breasts/chest by shower or cleansing wipes is recommended.**
   - Don facemask and clean hands with alcohol based hand sanitizer or wash with warm water and soap for at least 20 seconds.
   - Designate a hospital grade pump that will stay in the patient's room until discharge.
   - Don gloves and clean pump with hospital approved disinfectant.
   - Clean hands with alcohol based hand sanitizer or wash with warm water and soap for at least 20 seconds before and after pumping.
   - Pump as instructed.
   - Cap bottles after pumping.
   - Mother washes pump parts (except tubing) with hot soapy water after each pumping session and wipes down pump with hospital approved disinfectant.
   - Pump kits should be replaced or sterilized every 24 hours if using hospital-provided Ameda pump kit or compatible personal pump.
   - If using personal pump or pumping at home, sterilize pump parts 1 x per 24 hours (boiling pump parts x 5 minutes, washing in dishwasher on 'sterilize' cycle or using steam bag).
     - **CDC pump cleaning guideline handouts:**
       - English-https://www.cdc.gov/healthywater/pdf/hygiene/breast-pump-fact-sheet-p.pdf
       - Spanish-https://www.cdc.gov/healthywater/pdf/hygiene/breast-pump-fact-sheet-sp-h.pdf
   - If you use a wash basin or bottle brush when cleaning your pump parts, rinse them well and allow them to air-dry after each use. Consider washing them every few days, either in a dishwasher with hot water and a heated drying cycle, if they are dishwasher-safe, or by hand with soap and warm water

2. **Staff handling of pumped milk in Post-Partum Unit or alternate Adult Hospital Unit (Parnassus or Mt. Zion locations)**
   - Most patients on Postpartum Unit will either have a known or pending COVID status.
   - Appropriate PPE should always be used according to the patient's current COVID status.
   - Mother will pump/hand express and use ADT labels to identify breast milk storage bottles, adding date and time of pumping.
   - Before entering the patient's room, Staff will:
     - Place a plastic bag with a paper cup inserted **outside** the room. Once collected, breastmilk collection containers (eg bottles, feeding syringes, Low Absorption Swabs) will be placed into the plastic bag/cup.
   - After collection in room, Staff will:
     - Sanitize hands and don new gloves to open door and drop breast milk containers into cup outside.
     - Doff PPE per protocol.
     - With clean gloves, seal the plastic bag before transporting to another location (e.g. on Postpartum unit, infant's bedside in ICN, designated refrigerator/freezer, home with patient).
   - Patients on COVID precautions will store their pumped breast milk in centralized Dietary refrigerator in appropriately labeled patient specific plastic bin.
   - If the recommendation is to pump and discard milk due to other safety concerns, milk should be pumped

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

and discarded inside the patient room.

- Mother should continue to pump regularly (recommended 8-12 times/day, or every 2-3 hours x 10-20 minutes) in order to establish and maintain maternal milk supply.

3. Transport of breast milk between hospitals and between units within the hospital

- Transport Between Units
  - Staff will transport breast milk containers (bottles, syringes or swabs) from mother's room to baby's room in ICN following procedure above.
  - ICN Nurse will:
    - Remove bottles from transport bag and discard bag.
    - Nurse uses Aseptic Milk Transfer Technique in Anteroom. See Appendix A.
    - Receive the breast milk into Timeless and relabel milk according to policy.
    - Place the bottles in the designated milk refrigerator inside the baby's room.
- Transport of milk from home into the ICN or BCH units
  - ICN Nurse will:
    - Remove bottles from transport bag and discard bag.
    - Nurse uses Aseptic Milk Transfer Technique in Anteroom. See Appendix A.
    - Receive the breast milk into Timeless and relabel milk according to policy.
    - Place the bottles in the designated milk refrigerator inside the baby's room.
  - For colostrum, the container (syringe or swab) is considered dirty and will be placed in a clean zip top bag to be transported to the ICN.
    - The ICN Nurse will remove the colostrum container and aseptically transfer the colostrum onto a sterile swab or into a sterile syringe before administering to the patient.
    - Staff handling these containers should adhere to PPE and hand hygiene guidelines after using the container. (See Appendix A)
  - If milk is received frozen from home, the outside of the bottles are wiped down with food safe disinfectant wipe.
    - This wipe can be requested from Materiel Services
      - PMM# 113908 WIPE SANI-WIPE PROFESSIONAL 7.75X6-IN PK/180 - P14884
      - If wipes are not available, contact the on-call patient food services manager or supervisor via VOALTE to get food safe disinfecting spray.
      - After disinfecting bottles, receive into Timeless and relabel per policy.
      - Place bottles into clean zip top bag for milk tech to pick up or deliver to freezer immediately.
- Transport between hospitals
  - Follow pumping and handling guidelines as above
  - Expressed breastmilk should be stored in a separate designated refrigerator until ready for transport if possible
  - Depending on distance of transport, expressed milk can be kept cold in the following ways:
    - Short transport (~2-3 hrs.) -insulated bag with ice packs (not ice cubes)
    - Short-moderate length transport (4 hours) -Styrofoam box or a cooler with ice packs

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

(preferred)

- Long transport (all day or overnight) - Styrofoam box or cooler with dry ice.

- A cooler and dry ice is always the most reliable way to keep milk cool.
- If frozen breast milk thaws during transport, it can still be refrozen if <50% of the bottle has thawed. If >50% is thawed it should be used within 24 hours.

4. Mothers who are discharged home and continue to pump for their hospitalized infant

- Patient should be discharged home with the following supplies:
  - Manual breast pump
  - Hospital provided hard plastic milk storage bottles
    - **Milk CANNOT be stored in plastic zip top bag in the hospital**
  - Castile soap packets
  - Patient labels for labeling milk with pump date and time
    - Educate patient to ensure all labels have the correct patient information
- Mothers pumping at home should be instructed to do the following:
  - Clean breast pump with disinfecting spray or wipe before each use
  - Don face mask covering mouth and nose
  - Preform proper hand hygiene with alcohol based hand sanitizer or washing with warm soapy water for at least 20 seconds
  - **Label milk with date and time milk was pumped and ALWAYS ensure labels have correct patient information**
  - Breast pump parts should be sanitized every 24 hours (boil for 10 minutes, in dishwasher on 'sanitize' mode or in a steam bag per manufacture instructions)

5. Additional Considerations

- If there is a surplus of pumped breast milk for an ICN patient, breast milk can be stored in the ICN Milk Room freezers after proper disinfecting of bottles.
- For women pumping at Mt Zion, Parnassus, or Mission Bay:
  - Milk that is not going to be used within 48 hours should be transported home or moved to a freezer. Unused milk must be discarded after 96 hours if it is not frozen.
  - Patient ADT label with date and time should be placed on pumped milk container if the baby is not in an inpatient unit (i.e. unable to generate Timeless label)
- For patients readmitted to Postpartum or other adult hospital unit WITHOUT a baby admitted to the hospital, pumped breastmilk MUST be taken home and cannot be stored in the hospital refrigerators or freezers.
  - The postpartum unit staff will provide a green cooler with ice packs for milk to be stored in the patient room until it can be taken home
- For patients readmitted to BCH units with mother rooming in with their Covid + infant:
  - Continue to pump their breastmilk if breastfeeding routine is interrupted using personal pump or hospital provided pump following pumping procedure and handling guidelines listed above
  - Milk may be stored in patient's room in a cooler on icepacks for up to 24 hours
  - Milk that is not used should be transported to patient's home refrigerator or freezer or moved into BCH unit freezer following Aseptic Milk Transfer Technique (see below)
- Donor milk will be made available to all quarantined newborns at BCH based at Provider discretion

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

(provided there is not a donor milk shortage.)

6. **Supply List for Milk Handling and Storage to be provided to patient prior to discharge home**
   - Cooler bags for milk transport PMM #589463
   - Manual Breast Pump PMM #43476
   - Plastic Storage Bottles: 4 oz PMM #41806, 2 oz PMM #26179
   - Castile Soap packets PMM

Educational Materials for Patients

Z:\A ICN\COVID Resources\COVID-19 and Pumping Your Breast Milk for Your Baby_English UC.pdf

Z:\A ICN\COVID Resources\COVID-19 and Pumping Your Breast Milk for Your Baby_Spanish UC.pdf

Z:\A ICN\COVID Resources\COVID-19 and Pumping Your Breast Milk for Your Baby_Chinese_UC.pdf

Z:\A ICN\COVID Resources\COVID-19 and Pumping Your Breast Milk for Your Baby_Russian_UC.pdf

BREAST MILK IDENTIFICATION, HANDLING, STORAGE AND EXPOSURE *(continued)*

ASEPTIC MILK TRANSFER TECHNIQUE

Aseptic Milk Transfer Technique* If your infection control team requires additional precautions, you may simply transfer milk from the original container into a new, clean container. This technique may be performed by one healthcare provider in the patient's room.

1. Before entering mom's room, pack one large plastic storage bag with clean supplies (Figure 1). Perform hand hygiene and don PPE before entering room. Place bag on counter or table.

Figure 1. Supplies

2. Disinfect a workspace (bedside table or counter). Create "original" field (Figure 2). Open large plastic bag that contains new storage containers, but leave the containers inside. Perform hand hygiene and don new gloves. Create "new" (clean) field (Figure 2).

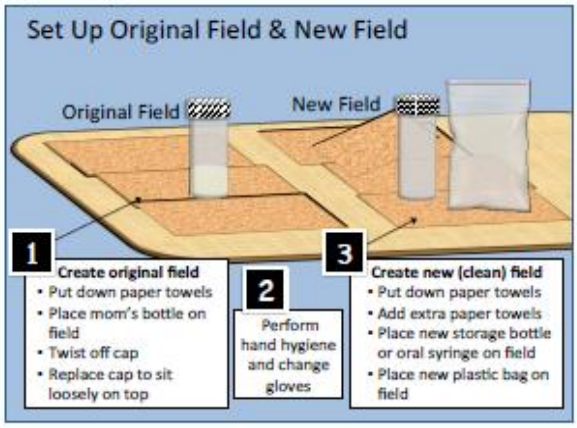


Figure 2. Original & New Fields

3. Use clean paper towel from the new field to remove the cap from mom's original bottle. Use paper towel to grab original bottle and pour contents into new, clean bottle (Figure 3). If milk volume is small, transfer milk into an oral feeding syringe.

4. Transport clean storage bag with new milk storage containers to neonatal unit. Storage containers do not require any additional precautions. Do not apply chemical disinfectant to milk storage containers.

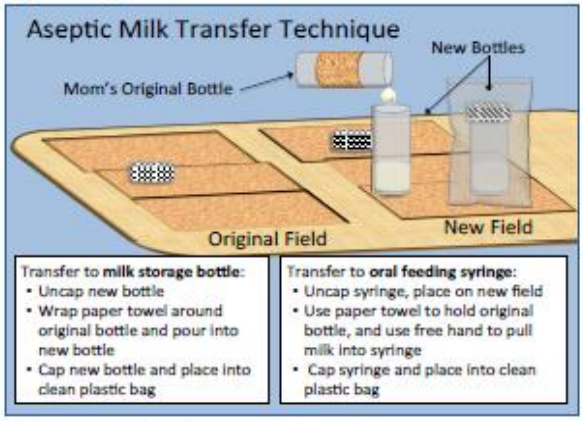


Figure 3. Aseptic Milk Transfer

*Please note, **The Bottle Transfer Technique** is the preferred method for transferring milk to baby.

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