

HealthFirst

INSERVICE TO GO

Colostrum and Milk Drops Protocol in the NICU

For Colostrum/Milk Drops Oral Care in the NICU, the goal is not nutrition, it is **Oropharyngeal Immune Therapy (OIT)**. Small milk drops can provide immune, sensory and neuroprotective benefits before full feeds begin for NPO, intubated and very preterm infants, who often miss positive oral experiences.



Colostrum is the first milk or foremilk produced by the breasts during late pregnancy and the first few days after birth. It is usually thick, yellow to golden in color, produced in small amounts, and rich in proteins and immune factors such as antibodies.

BENEFITS OF COLOSTRUM OR MOTHER'S EXPRESSED BREAST MILK (EBM):

- Ensures newborn receives immune, anti-inflammatory, and growth-related bioactive factors even while still NPO.
- **Biologically tailored to that specific infant and richest in the immune factors you are trying to deliver.**
- Colostrum is **especially concentrated in immunoglobulins, growth factors, and protective substances.**
- Oral therapy with mother's milk is linked with **lower sepsis risk, lower inflammatory signaling, earlier progression toward enteral and oral feeds, and increased lactoferrin and secretory IgA.**

KEY CONCEPTS:

- ✓ Use mother's colostrum first because it has the highest concentration of protective immune factors.
- ✓ Use mother's expressed breast milk next if colostrum is no longer available.
- ✓ **Do not use donor milk** for milk drops because its bioactive immune benefits are reduced by processing and it is not the studied standard for OIT.
- ✓ **Do not use fortified milk or formula** for milk drops because milk drops are an immune therapy, not a feeding, and those products are intended for enteral nutrition and growth support.

SUPPLIES & EQUIPMENT:

Place the following supplies into a clean bag with the date and patient's label to keep at the patient's bedside:

- Petite Low Absorption Swabs for colostrum (Retains significantly less fluid, ensuring maximum delivery of colostrum to the neonate's oral cavity)
- Petite Foam Swab for fresh EBM (Excellent absorption for applying larger volumes of mature EBM)
- Soft Gauze
- 5 mL Sterile Water vials
- Medicine Cups

Supplies needed for preparing oral care syringes for Colostrum/EBM:

- Four (4) to six (6) 1mL Oral Syringes
- Fresh Colostrum or EBM
- Styrofoam cup labeled with patient label and "Oral Care"



Collection of Fresh Colostrum/EBM:

- 1) Instruct patient's mother to bring fresh colostrum or EBM to the bedside to use for oral care. If mother is pumping at the bedside, use freshly pumped milk for oral care.
- 2) Divide fresh colostrum/breastmilk into four (4) to six (6) 0.2 ml portions using a 1 ml oral syringe. (This will provide a 24-hour supply for oral care.)
- 3) Scan mother's breastmilk bottle used for oral care, divide and print labels for each of the oral care syringes.
- 4) Place syringes in cup with patient's label for "Oral Care" into refrigerator. (Colostrum/Fresh EBM can be stored up to 48 hours in the refrigerator and then placed in the freezer to be saved for enteral feedings.)

Remember to:

- ✓ Always provide developmentally supportive mouth care, paying close attention to infant's cues – if the infant becomes distressed, contain and comfort until stability is reestablished. Encourage rooting in older children.
- ✓ Oral colostrum or fresh mother's breastmilk should be administered via oral care to the infant as soon as it is available, regardless of infant's medical or feeding status.
- ✓ If no colostrum or fresh mother's breastmilk is available, perform oral care using sterile water.
- ✓ Encourage/teach parents how to properly perform oral care on their child.



Steps for Oral Care:

- 1) Perform oral care with mother's Colostrum/EBM Q4-6 hours with patient care.
 - a. Gently suction mouth if needed, using appropriate nasal/oral suctioning device or bulb syringe.
 - b. Scan patient and oral care syringe, making sure to verify patient's 5 rights and expiration of milk.
 - c. Place 0.2 mL colostrum into clean medicine cup. Dip appropriate foam swab into colostrum. Gently rub inside of left cheek, tongue and gums. Follow tongue movements with swab, do not force swab into mouth. (**Note: If volume of colostrum/EBM is less than 0.2ml, you can dilute it to a volume of 0.2ml using sterile water.**)
 - d. Apply remaining colostrum/EBM onto foam swab. Follow process for right cheek, tongue and gums. Discard swab.
- 2) Using soft gauze, place sterile water from vial onto gauze and gently clean lips and around patient's mouth.
- 3) Discard gauze, medicine cup and opened sterile water vial.
- 4) Document colostrum/EBM as oral care in EPIC charting.

TO DOCUMENT IN EPIC:

- 1) Go to "Flowsheets"
- 2) Click on "NICU I/O"
- 3) Proceed to "Feeding Information"
- 4) On "Feeding Type" comment box, document "Non-nutritive milk drops"
- 5) Click "Accept"

- 6) Then go to "Daily Cares/Safety"
- 7) Proceed to "Oral Care"
- 8) Document "Milk drops" on the Comment Box
- 9) Click "Accept"