**TITLE: INFANT FEEDING**

Responsible for development/updates: Baby Friendly Task Force

Applicable departments: 5M Women’s Clinic, 6C Birth Center, 6H Infant Care Center

Applicable professionals: MDs, CNMs, NPs, RNs, RDs, IBCLCs

Responsible for Implementation: Women’s Clinic Nurse Manager, Birth Center Nurse Manager, Infant Care Center Nurse Manager

Effective date: 4/1/2013 Replaces policy dated:

Update frequency: biannually

**PURPOSE**

***Step 1: Policy***

* To promote successful breastfeeding for all mothers who elect to breastfeed.
* To ensure that care is congruent with the Ten Steps to Successful Breastfeeding as endorsed by the UNICEF/World Health Organization Baby Friendly Hospital Initiative.
* To standardize information received by all providers regarding care that affects infant feeding through routine communication of this policy.
* To optimize care, all providers will be aware of the policy location and how to access it.

**POLICY & PROCEDURE**

***Step 2: Staff training***

The World Health Organization Ten Steps to Successful Breastfeeding will be posted in all locations where care is provided to mother and young children in languages that providers and families can easily understand.

The manager of each applicable department will review the policy with all new employees within two weeks of hire.

All staff will receive training necessary to implement this policy within 6 months of hire

* Training will include 20 hours of education, 5 of which will be under direct supervision of a supervisory staff member.
* Physicians and advanced practice nurses will receive a minimum of 3 hours of education and training.
* Details of the training plan are in *Appendix 1: SFGH BFHI Training Procedures.*
* Documentation of provider training will be maintained in each person’s employee portfolio.
  + Academic physicians and advanced practice nurses will maintain records of their faculty development related to breastfeeding and the evidence of completion of the three hours of required instruction.
* Providers know safe handling and storage of breast milk

San Francisco General Hospital (SFGH) upholds the WHO International Code of Marketing of Breast milk Substitutes by declining to accept or distribute free or subsidized supplies of breast milk substitutes, nipples, and other feeding devices.

* Employees of manufacturers or distributers of breast milk substitutes, bottles, nipples, and pacifiers will have no direct contact or communication with pregnant women and mothers.
* SFGH does not receive free gifts, non-scientific literature, materials, equipment, money, support for breastfeeding education or events from manufacturers of breast milk substitutes, bottles, nipples, and pacifiers.

Pregnant women, mothers, and families will not be given marketing materials, samples or gift pacts by the facility that consist of breast milk substitutes, bottles, nipples, pacifiers, or other infant feeding equipment or coupons for the above items.

***Step 3: Prenatal information and counseling on breastfeeding***

All pregnant women will be provided with information on breastfeeding. This includes counsel on the benefits, contraindications, and management of breastfeeding.

* All pregnant women will receive information in their educational trimester packets (Kathleen, is this possible?)
* Pregnant women and their families will not be given information that promotes the use of human milk substitutes, promotional materials or informational handouts with industry logos.
* Mothers will be informed of the risks of giving non human milk supplements to breastfeeding infants in the first 6 months of the infant’s life.
* Information about how to safely prepare and feed infant formula as described in WIC brochure *“When you Feed me Formula”* (Appendix 2) will be provided to mothers:
  + who chooses to formula feed or
  + if she or her infant(s) has (have) a contraindication to breastfeeding or receipt of human milk.
* Education is provided in a family-centered manner
* Education provided will be documented in the mother’s medical record.
* The mother’s plan of feeding will be documented in the prenatal chart.

***Step 4: Helping mothers and infants start breastfeeding:***

Mother-Newborn couplet will be:

* Offered skin-to-skin contact (STS) immediately after birth unless medically unstable, regardless of feeding choice. See *Appendix 3: Skin-to-Skin Care*
* Routine newborn procedures are postponed until after the first feeding.
* When a delay in STS has occurred, staff will ensure that mother and infant will STS as soon as medically possible.
* Routine assessments are performed during STS.
* Infant is to remain STS, uninterrupted, at least until the baby competes the first feeding.
* All mothers of cesarean section delivery will be given their babies to hold with skin-to-skin contact as soon as the mother is safely able to hold and respond to her baby.
* Mother and baby will room in throughout the entire hospital stay unless medically contraindicated. Skin-to-skin care will be encouraged.
* Mother will be encouraged to exclusively breastfeed unless medically contraindicated.
* Mother will be educated about and assisted with breastfeeding.

***Step 5: Assist mothers to breastfeed, and to express and store their breast milk, even if they are separated from their infants***

* All breastfeeding mothers will be supported with best practices around lactation care, and will be taught breastfeeding management prior to discharge. See *Appendix 4: Guidelines for inpatient breastfeeding education and support.*
* Mothers will be taught how to breastfeed and maintain lactation if they are separated from their newborns. See *Appendix 5: Hand expression guidelines* and *Appendix 6: Pumping guidelines*.
* Mothers will be taught safe handling and storage of human milk. See *Appendix 7: Milk Storage Guidelines.*

***Step 6: No formula or other supplements provided unless medically indicated***

Formula will not be given to any breastfeeding infant unless ordered for medical indication or by the mother’s informed and documented request.

* If formula is medically indicated, orders will include rationale, amount, and duration of supplement. See *Appendix 8:* *Physician Orders for Newborn Supplementation* and *Appendix 9: Guidelines for Supplementing in the Healthy Term Breastfed Neonate.*
* If formula is provided due to maternal insistence, education regarding health risks of formula feedings will be provided to mother and documented in the infant’s chart. See *Appendix 10: Education for supplementation.*
* If supplementation is provided, staff will inform mothers of methods to provide alternative feedings. Devices other than bottles and artificial nipples will be offered according to the best scientific evidence available. See *Appendix 11: Supplementing at the Breast* and *Appendix 12: Finger Feeding.*

*Step 7: Encourage mothers to keep their infants with them 24 hours a day*

* All mothers and well infants will room-in together, including at night.
* Separation of mothers and infants will occur only if medically indicated and reason is documented in the chart.

***Step 8: Mothers are taught to feed their infants on demand***

* All mothers are taught to recognize their infant’s feeding cues and feed on demand.
* No restrictions are placed on mothers regarding frequency or duration of breastfeeding.

***Step 9: No pacifiers or artificial nipples for breastfeeding babies***

Pacifiers and artificial nipples will not be given by the staff to breastfeeding infants, with the following exceptions:

* Preterm or other infant with medical conditions will benefit non-nutritive suckling.
* Newborns undergoing painful procedures ***when breastfeeding to comfort the infant is not available***. If a pacifier is used, it will be discarded following the procedure prior to returning the infant to the mother.
* If a mother requests a pacifier, the staff will explore reasons for this request, address the mothers concerns, and educate her on potential problems with pacifier use. This education will be documented. If the mother insists, a pacifier will be provided.
* Infants receiving supplemental nutrition will be offered alternative feeding methods to avoid the use of bottles and nipples if acceptable to mother and achievable according to staff.
* Mothers will be taught the rationale for avoidance of bottles and nipples according to the best scientific evidence available.

***Step 10: Mothers and infants will be referred to follow-up and support after discharge***

All breastfeeding newborns will be scheduled to see a pediatrician or nurse practitioner within 2-3 days of discharge.

* If infant has weight loss or latching problems at discharge, a feeding plan will be created with the mother in addition to routine breastfeeding instructions. Follow up should be scheduled within 24 hours of discharge.

Breastfeeding mothers will be referred to community breastfeeding resources, including a Maternal Child Public Health Nurse and the 206-MILK warmline. These resources among others are also listed in “Congratulations Mom” booklet provided to all mothers before discharge.

\**Contraindications to breastfeeding:*

* *HIV+*
* *Mother has active psychosis*
* *Mother using illicit drugs*
* *Mother taking medications contraindicated in breastfeeding. Refer to Hale or to LactMed:* [*http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT*](http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT)
* *Mother has active untreated tuberculosis*
* *Mother has HTLV 1 or 2*
* *Infant has classic form of Galactosemia*

**Appendices:**

* Appendix 1: SFGH BFHI Training Procedures. - To include bf, provision of human milk, and feeding who is not breastfeeding, alternative methods of feeding if not breastfeeding
* Appendix 2: Scanned copy of “When You Feed Me Formula” – Laurie will scan it
* Appendix 3: Skin-to-Skin Care – Jane, a CNS student, will have this by 4/23
* Appendix 4: Guidelines for inpatient breastfeeding education and support.
* Appendix 5: Hand expression guidelines
* Appendix 6: Pumping guidelines
* Appendix 7: Milk Storage Guidelines.
* Appendix 8:Physician Orders for Newborn Supplementation
* Appendix 9: Guideline for Supplementing in the Healthy Term Breastfed Neonate**.**
* Appendix 10: Nursing form - Education for supplementation
* Appendix 11: Guideline for Supplementing at the Breast
* Appendix 12: Guideline for Finger Feeding

Appendix 5: Hand Expression

**Hand Expression**

**\*Hand expression yields more milk than pumping in the early postpartum period and should be initiated first.**

**Indications**

1. To be used **within the first two hours postpartum** if the infant is not available for breastfeeding initiation.

2. To be used to help initiate breastfeeding, increase milk supply, assist with pumping or to help with engorgement.

3. To be taught to all lactating women before discharge.

**Equipment**:

-Clean hands.

-A small medicine cup or oral syringe to gather colostrum.

-Label with patient’s MRN and date and time expressed for storage.

**Procedure:**

* Hand expression can be done in any position which may be more comfortable than pumping for fresh post op c/s patients, but sitting up and using gravity is ideal.
* Have the patient get into a comfortable position- either side lying, semi-supine or sitting.
* Assist the patient in lightly massaging each breast for 1 to 2 minutes.
* Then have her place her thumb and first two fingers about 1-1.5 inches from the nipple at 12 o'clock and 6 o'clock forming a “C” with her hand. 
* The patient should then push her breast back straight into her chest (With larger breast instruct women to lift then pull back.)
* Next, have her press her thumb and forefinger together to gently squeeze and empty milk reservoirs.
* Have her turn her hand to another place on the breast and repeat:
  + position
  + pull back
  + squeeze
* She should do this for 3 to 5 minutes on the first breast. Then repeat with the second breast.
* This is done for about 5-15 min **alternating** breasts
* Hand expression should be practiced at least 8 times in 24 hours to imitate infant feedings until her infant is able to breastfeed.
* Colostrum can be drawn up in oral syringe with patient’s information and date and time expressed to be stored in 6H fridge or cup fed to infant if available.
* If hand expression is being used to help infant latch, express drops from each breast and document approximate number of drops (gtt) given in baby’s chart.
* Express milk into infant’s mouth to get baby interested in eating and attempt to latch.

Avoid:

1. Excessive/hard squeezing as this can cause bruising.
2. Sliding hands over the breast may cause painful skin burns.
3. Pulling the nipple, which may result in tissue damage.

Drawings used with permission from Los Angeles County Breastfeeding Coalition.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**References:**

The Academy of Breastfeeding Medicine Protocol Committee.(2010) *ABM clinical protocol #7: model breastfeeding.* Breastfeeding

Medicine. 5, 1-6.

Becker, G.E, Cooney, F., & Smith, H.A. (2011). *Methods of milk expression for lactating women (Review).* The Cochrane Collaboration. Issue 12, 1-88.

Flaherman, V.J., Gay, B., Scott, C., Avins, A., Lee, K.A., & Newman, T.B. (2012). *Randomised trial comparing hand expression with breast pumping for mothers of term newborns feeding poorly.* Arch Dis Child Fetal Neonatal Ed. 97,F18−F23.

Ohyama, M., Watabe, H. & Hayasaka, Y. (2010) *Manual expression and electric breast pumping in the first 48 h after delivery.* Pediatrics International. 52, 39-43.

Prime, D.K., Garbin, C.P., Hartmann, P.E., & Kent, J.C. (2012). *Simultaneous breast expression in breastfeeding women is more efficacious than sequential breast expression.* Breastfeeding Medicine. 0, 1-6.

Sisk, P., Quandt, S., Parson, N., & Tucker, J. (2010). *Breast milk expression and maintenance in mothers of very low birth weight infants: supports and barriers.* Journal of Human Lactation. 26, 368.

**Delayed Breast Milk Production:**

**Lactogenesis** is the change that occurs between pregnancy and lactation. During pregnancy a process called Mammogenesis develops breast tissue into a glandular system ready for milk production. This process is halted by high levels of pregnancy hormones in the body during pregnancy. After delivery, these levels fall allowing Prolactin and Oxytocin to start and maintain milk production.

Lactogenesis begins in very late pregnancy and has 3 stages:

**I-** during late pregnancy when breast tissue is getting ready to produce milk and early colostrum

**II**- the copious production of milk postpartum, when milk is “coming in.” Postpartum days 2-3, may continue to day 8.

**III**- The continuation of milk production from postpartum day 8 and beyond.

**Delayed Lactogenesis II is defined as a delay greater than 72 hrs. postpartum.**

|  |  |
| --- | --- |
| **Risk Factors:** |  |
| Primiparity  Psychosocial stress/pain  Maternal obesity  Diabetes  Hypertension  Stressful labor and delivery  Unscheduled cesarean section  Delayed first breastfeed episode  Breast surgery/injury  Retained placental fragments  Cigarette smoking  Infant separated from mother | Polycystic ovarian syndrome  Postpartum hemorrhage with Sheehan’s syndrome  Advanced maternal age  Prolonged second stage  Exogenous Oxytocin use  Flat/inverted nipples  Supplementation within 48 hours postpartum  Nipple pain when breastfeeding  Hypothyroidism, hypopituitarism  Infant Apgar score <8  Late preterm infant |

Women with these risk factors are more likely to supplement and are less likely to initiate breastfeeding or exclusively breastfeed within the first 4 weeks postpartum. It is important as nurses that we assess for these risk factors and start breast stimulation with hand expression **early** to help women be as successful as they want to be with breastfeeding. If the infant separated from mother and is unable to latch, hand expression should be begun within the first two hours.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reference:

Brownell, E., Howard, C.R., Lawrence, R.A., & Dozier, A.M. (2012). *Delayed onset lactogenesis II predicts the cessation of any or exclusive*

*breastfeeding.* The Journal of Pediatrics. 161 (4) 608-614.

Hurst, N.M. (2007). *Recognizing and treating delayed or failed lactogenesis II.* J Midwifery Womens Health. 52 (6) 588–594.

Varney, H., Kriebs, J.M. & Gregor, C.L. (2004). *Varney’s midwifery.* Fourth ed. p. 1072.

Appendix 7: Milk Storage Guidelines



**San Francisco General Hospital**

**Breastfeeding Support Services**

**Milk Storage Guidelines for Home**

clear

|  |  |  |  |
| --- | --- | --- | --- |
| **Storage time for human milk\*** | **Room Temperature** | **Refrigerator** | **Freezer** |
| Fresh | 6 hours | 6 days | 4-6 months |
| Thawed | Until feeding ends | 24 hours | Do not refreeze |
| Warmed, fed | Throw out | Throw out | Until feeding ends |

* Any clean, sealed container can be used to store milk. Breastmilk bags or bottles are best.
* Store your milk in amounts no larger than what your baby might take (1-4 oz). This means less waste. It also should help make the milk faster to warm.
* Write the **date** and time on your milk container.
* If your baby takes some milk from a bottle and there is milk left, don't save it. His saliva mixes with the milk during feedings.
* Your milk will separate into layers, and fat rises to the top. Just shake the milk before feeding.

**To defrost frozen milk**

* Defrost in the refrigerator (this takes about 12 hours – try putting it in the fridge the night before you need it).
* For quicker thawing, hold container under running water.

**To warm milk**

* Heat water in a cup or other small container, then place frozen milk in the water to warm; or
* Use a bottle warmer.
* **NEVER microwave human milk or heat it directly on the stove**.

stacked with dph Appendix 8: Name

**PHYSICIAN** **ORDERS** DOB

**FOR NEWBORN** MRN

**SUPPLEMENTATION** PCP

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MEDICAL INDICATION:**

* Hypoglycemic infant with a blood glucose < 40
* Hyperbilirubinemic infant per Bhutani scale
* Weight loss of > 10% of birth weight
* Late preterm infant (34 – 36+6 wks) with weight loss **per guidelines**
* Infant on antibiotic treatment with deficient voids
* Infant with less than 1 void in first 24hours and / or less than 2 voids in first 48 hours of life

**SUPPLEMENT WITH:**

* Expressed Breast milk
* Expressed Breast milk and/or 20 kcal/oz formula
* Formula, other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MODE OF SUPPLEMENTATION:**

* SNS
* finger / cup / syringe feed
* Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**VOLUME OF SUPPLEMENTATION:**

* First 24 hours of life: 5-10ml/feeding
  + 24-48 hours of life 5-15ml/feeding
  + 48-72 hours of life 15-30ml/feeding
  + 72-96 hours of life 30-60ml/feeding
* Other \_\_\_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_ml/per feeding
* See LPI guidelines
* Measure pre and post feed weights \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_times/day
* Titrate supplement based on pre and post feed weight volumes
* Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FREQUENCY OF SUPPLEMENTATION:**

* Once
* Feed on demand, supplement with each feed
* Q2-3 hours as tolerated
* Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DURATION OF SUPPLEMENTATION:**

* Until blood glucose is normalized
* Until total bilirubin is normalized
* Until difference between pre and post feed weight is > 15g
* Until 1 void in six hours or 2 voids in 12 hours, both > 10g
* Pt to be sent home with supplementation order, see discharge instructions
* Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Newborns being supplemented for maternal preference do not need a MD order; RN will document education on best feeding practice. Formula will be discarded within one hour of opening a new bottle

Date:\_\_\_\_\_\_\_\_Time:\_\_\_\_\_\_\_ Provider: ID#\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_Time:\_\_\_\_\_\_\_ Registered Nurse: Invision #\_\_\_\_\_\_\_\_\_

Appendix 9:

****

Guideline for Supplementing in the Healthy Term Breastfed Neonate

|  |  |
| --- | --- |
| 1st 24 hours of lifeSupplement per feeding | 5-10cc |
| 24-48 hours of life Supplement per feeding | 5-15cc |
| 48-72 hours of life Supplement per feeding | 15-30cc |
| 72-96 hours of lifeSupplement per feeding | 30-60cc |

These suggested volumes are based on the Academy of Breastfeeding Medicine’s Clinical Protocol #3: Hospital Guidelines for the Use of Supplementary Feedings in the Healthy Term Breastfed Neonate (www.bfmed.org)

1. Breastfeeding infants will be supplemented with expressed maternal breast milk if available. Mother will be taught hand expression if supplementation is medically indicated.
2. Medically indicated supplementation will have a physician order.
3. SNS is the preferred method of supplementation.
4. For infant separated from mother requiring the occasional supplemental feeding, a syringe, or spoon/cup/finger feeding may be given after breastfeeding.
5. All supplemental feedings should be documented, including the content, volume, method and medical indication /reason.
6. When **not medically indicated,** families are to be educated on the risks of supplemental feedings and pacifier use **and** education is to be documented by the nursing and/or medical staff.
7. Infants requiring special attention and vigilance for **hypoglycemia** will have a physician order for supplementation.
   * + **Low birth weight infants ( < 2500 gr. )**
     + **Infants with hypoglycemia ( DS ≤ 40 )**
     + **Infants with significant weight loss**
8. Readmitted infants requiring special attention and vigilance for **dehydration** will have a physician order for supplementation:
   * + **Hyperbilirubinemia**
     + **Significant weight loss (>10% of birth weight)**
9. Formula will be discarded within 1 hour of opening a new bottle.

Appendix 10:

stacked with dph

Name:

DOB:

MRN:

Formula supplementation initiated for medical indication with MD order:

□ Hypoglycemia: glucose \_\_\_\_\_mg/dL @\_\_\_\_\_hours of life

□Excessive weight loss: \_\_\_\_\_% at \_\_\_\_\_ hours of life

□Hyperbilirubinemia related to decreased intake

□Other (explain) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

□ If for medical indication, education provided to mother r/t reasons for supplement and estimated time supplementation will be necessary (i.e. x1 for low glucose, x1-2 days for excessive weight loss).

Formula supplementation initiated for:

□Maternal insistence

□ If for maternal insistence, education provided to mother (review all below):

□Explore mother’s reason for request

□Address mother’s concerns

□Educate mother regarding health risks of formula feedings (refer to list in back of chart)

□Support mother’s choice after educating her

□Mother/baby separation (explain) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

□ Maternal indication (explain) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supplement route (check all that apply):

□SNS (5Fr feeding tube c 20-30mL syringe) □Finger

□Cup □Syringe

□NG/OG □Bottle

If not SNS, explain\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_Print name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_