BREASTFEEDING IN THE NICU

Key Components of Breastfeeding

BREASTMILK AND PREMATURITY

Human milk feeding has been linked to reduced rates of infection, NEC and lower infant mortality rates

- Especially vital for preterm infants

Preterm milk is different from term milk

- Preterm milk transitions to look more like term milk within 5-7 weeks postpartum

MATERNAL GOALS AND SUPPORT

Feelings may vary based on the individual

- Anger, sadness, grief, detachment
- Dysphoric Milk Ejection Reflex (D-MER)
- Postpartum Mood Disorders

Shaping and management of expectations

Autonomy and feelings of control

- What CAN we do?

Focus on small goals and little wins

- What is YOUR attitude?

MATERNAL MILK SUPPLY

- Know factors that can affect supply
  - Stress
  - Maternal medical history
  - Medications
  - Return of menses
  - Mastitis
  - Clogged Ducts
- Common supplements
- Role of support and education

BREAST MILK MANAGEMENT

Maternal-infant separation

- Establish and support milk supply
  - Pump Early, Pump Often
  - At least 8 to 10 times per day
- Breast pumps
- Triple feeding

Role of skin to skin

- Breastmilk supply, bonding, connection, autonomy and control

Storage of breastmilk

- Infection Control considerations
- Milk as medication—*5* rights

FORTIFICATION AND SUPPLEMENTATION

Fortification and Supplementation

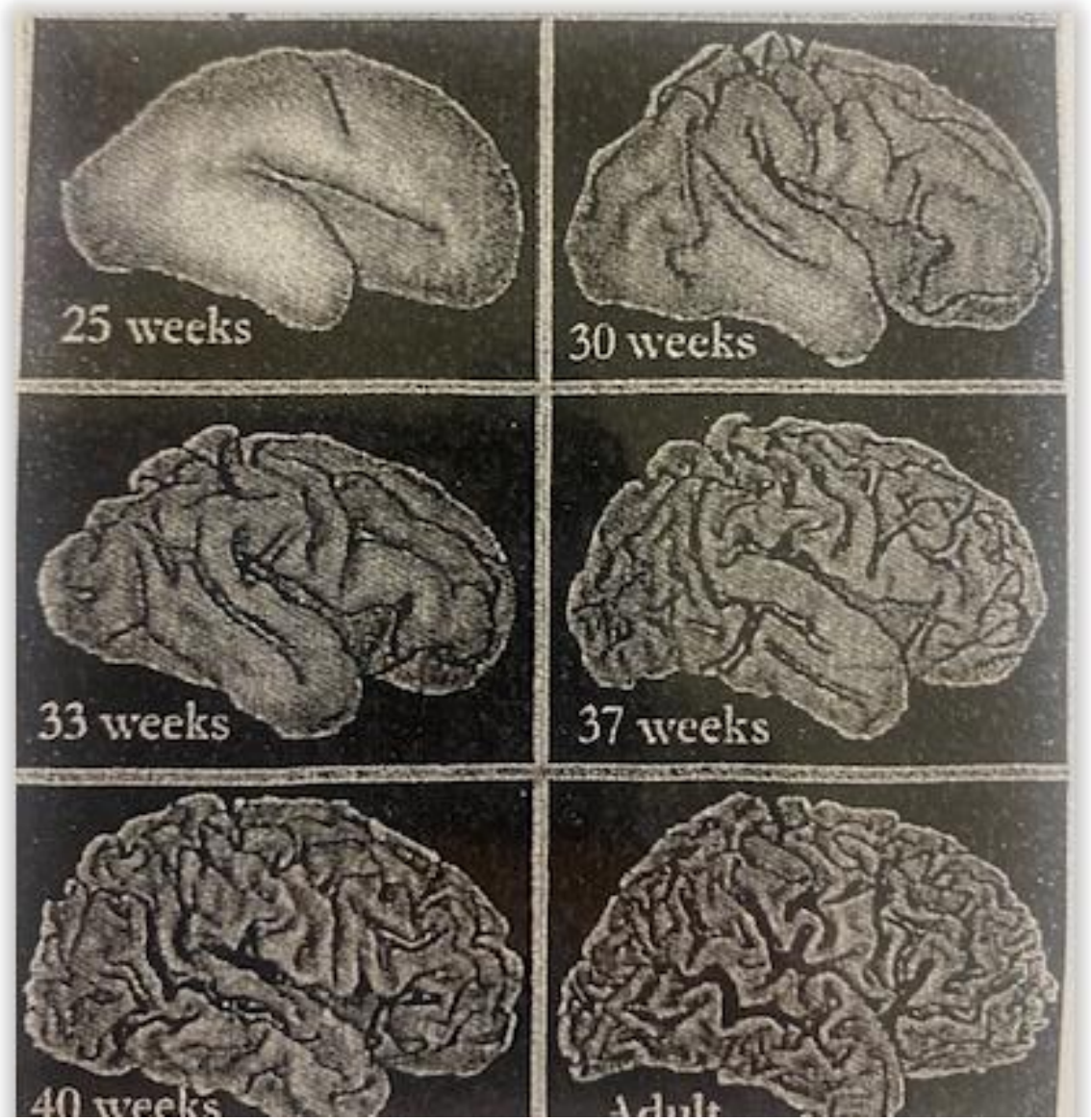
- Breast milk components
- 20kcal per ounce on average
- Types of fortifiers

Donor human milk

- Associated with higher rates of exclusive breastfeeding in extremely premature infants at discharge
- Safety considerations
  - Milk banks
- Differences from mother's milk include lower protein levels and reduction in certain minerals due to pasteurization

THE PRETERM AND LATE PRETERM INFANT

- Developmental immaturity
- Feeding immaturity
  - Poor breast stimulation
  - Ineffective transfer
- Less awake time
- Fewer or more subtle feeding cues
- Easily fatigued
- Medical complications
- Nipple size vs. mouth size



GROWTH & DEVELOPMENT CONSIDERATIONS

Effective suck development does not develop until 32-34 weeks gestation

- Bottle feeding breast milk—easier for baby to transfer but requires more energy than breastfeeding

Mature patterns of suck, swallow, breathe do not develop until 35-37 weeks gestation

Abnormal sucking patterns in preterm infants are normal

Feeding maturity will correlate to infant disease process and complications

BREASTMILK FEEDING

- Tube feeding prior to initiation of oral feeding
- Safe oral feeding
  - Paced feeds
- Non-nutritive breast feeding
  - Non-nutritive sucking
    - Can be done with pacifier or at the breast
      - Incorporation with gavage feeding
    - Does not stimulate prolactin secretion or milk production
    - Also beneficial for self-regulation and pain management
- Focus on experience of feeding rather than quantity
- Support breast milk feeding and production outside of feeding times
  - Skin to skin

TRANSITION TO BREASTFEEDING

Initial feedings at the breast

- Infant driven, positive experiences
  - Waking infant up (term vs preterm)
  - Scheduled vs ad lib
- Tools
  - Good alignment/positioning
  - Nipple Shields
- Timing

Remember the basics: latch and positioning are still important!

BREASTFEEDING

- Exclusive vs combined breastfeeding
- Supporting NICU families
- Feeding at the breast for a premature infant
- Transitioning to home
  - Education
  - Supplementation at home
  - Expectations
  - Resources

REFERENCES

Gardner, S. L., Carter, B. S., Enzman-Hines, M. L., & Niermeyer, S. (2020). Merenstein & Gardner's handbook of neonatal intensive care: An interprofessional approach (9th edition). Elsevier.

Lauwers & Swisher, (2021). *Counseling the nursing mother: A lactation consultant's guide* (7th ed.). Burlington, MA: Jones & Bartlett Learning.

Brodribb, W. (2019). ABM clinical protocol #9: Use of galactogogues in initiating or augmenting maternal milk production, second revision 2018. *Breastfeeding Medicine, 13*(5), 307-314. doi: 10.1089/bfm.2018.29092.wjb

LactMed. (2023). Moringa. Drugs and lactation database. https://www.ncbi.nlm.nih.gov/books/NBK501899/

Bazzano, A.N., Hofer, R., Thibeau, S., Gillispie, V., Jacobs, M., & Theall, K.P. (2016). A review of herbal and pharmaceutical galactagogs for breastfeeding. *The Ochsner Journal, 16*(4), 511-524.