



Stemming the Tide of Formula Supplementation

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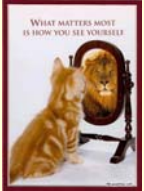
Predictors of exclusive breastfeeding

- Non-modifiable (age, socioeconomic status, education, marital status, past breastfeeding experience, health status)
- Modifiable (attitude, knowledge, skills, support)



Breastfeeding self-efficacy

- Predicts duration and exclusivity
- A mother's belief that she will be able to organize and carry out the actions necessary to breastfeed her baby



"I'm going to try to breastfeed"

- Mothers prefer not to breastfeed
- Mothers have a high comfort level with formula-feeding
- Father and others can feed the baby
- Too much impact on lifestyle
- Painful



"Do or do not... there is no try"
--Yoda

Las Dos



Stories vs statistics Impact of anecdotal comments

- Decisions can be biased by anecdotal data
- Anecdotes can override science
- Stories are more vivid and easier to process than hard data
- Hard-wired to process stories
- Peer testimonials
- Graphics and pictures



Idealism vs realism

- A mismatch between idealism (breastfeed exclusively for 6 months) and realism (immediate relief from pain or obtaining more sleep by abandoning breastfeeding).



Idealism vs realism

- When mothers are faced with breastfeeding problems or logistical difficulties in situations such as returning to work, pumping milk, caring for other children, low milk supply, or frequent feedings, the solution is to introduce formula
- This immediately relieves the tension between the ideal and the practical



Marketing to the millennials (ages 18-29)

- Breastfeeding and the concept of "perfect"
- Time-pressed mothers settle for pragmatism rather than perfect
- Want products that give her permission to be "imperfect"
- Provide a hassle-free product that appeals to time-crunched mothers



Interventions

- What to expect when breastfeeding
- Lifestyle changes
- Latch and troubleshooting latch
- How to incorporate breastfeeding into busy schedule
- Body changes
- How breastfeeding feels (pain has been identified as a predictor of not breastfeeding and an early reason for supplementing or weaning)
- Lifecoaching – to negotiate challenges of breastfeeding and work, household responsibilities, other children

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Interventions

- Catch them doing something right
- Intersperse or “script” offhand comments
- Shape behaviors
 - Positive first experiences are likely to result in repetition of the behavior
 - Assure successful latch
 - Provide readiness to feed cues so feedings do not result in sleepy or fussy baby
 - Point out swallowing
 - Make a plan that will result in breastfeeding success each time she feeds the baby
- Set short term achievable goals

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Explain infant behaviors that result in supplementation

- Infant fussiness
- Baby not sleeping
- Baby sucking on fists
- Fussiness when put down
- Need to assure that baby is full
- Need to make baby sleep



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Why babies cry

- Focus groups of WIC mothers
- They believe babies cry because of hunger (formula and cereal prevent hunger)

“When I gave formula, the baby no longer cried and slept, and that is when I decided not to give him breast milk.”

- Heinig et al. J Hum Lact. 2006; 22: 27-38.



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Fit WIC Baby Behavior Study

- Prenatal class activities focused on the messages related to infant sleep, because it was determined that parents need the sleep messages before their babies are born.
- These messages are needed to discourage the use of foods and fluids to extend infants' sleep in the early postpartum period.

Fit WIC Baby Behavior Study
“Helping you understand your baby”
http://www.nal.usda.gov/wicworks/Sharing_Center/spo/CA_report2006.pdf

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What can we do?

- Many mothers misinterpret normal infant behavior (crying and waking) as never ending hunger cues
- Help moms and dads to tell the difference between hunger and other cues
- Help moms and dads know why babies wake up
- Help moms and dads feel confident that they know what their babies need
- http://www.nal.usda.gov/wicworks/Sharing_Center/gallery/FitWICBaby.htm#staff

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What we know about newborn sleep

- Newborns spend equal time in active and quiet sleep (in 50-60 minute cycles)
- Infants in active sleep wake up easily when put down, because active sleep is a light sleep
- When they are in quiet sleep, they are harder to wake up
- Wait 20 minutes before putting baby down after a feed

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Supplementation: A Growing Problem

Ryan et al. Pediatrics 2002; 110:1103-1109
Mothers Survey, Ross Products, Breastfeeding Trends-2003, 2006

- 1971
 - 21% exclusive breastfeeding in hospital
 - 3% additionally supplemented
- 1982
 - 55% exclusive breastfeeding in hospital
 - 6.9% additionally supplemented
- 2001
 - 46.3% exclusive breastfeeding in hospital
 - 23% additionally supplemented
- 2003
 - 44.0% exclusively breastfeeding in hospital
 - 22% additionally supplemented
- 2006
 - 38.4% exclusively breastfeeding in hospital
 - 25.2% additionally supplemented

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CDC Exclusive Breastfeeding

- HP 2020 goals are for 46.2% exclusive breastfeeding at 3 months and 25% at 6 months
- Breastfeeding report card 2012
 - 36% at 3 months
 - 16.3% at 6 months



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Listening to 1,583 Mothers

Declercq et al. Listening to Mothers: Report of the First National US Survey of Women's Childbearing Experiences. New York: Maternity Center Assoc. 2002. www.maternitywise.org/listeningtomothers

- 67% wished to breastfeed exclusively
- Only 59% breastfed exclusively at 7 days postpartum
- Hospital staff gave formula samples or offers to 80% (66%) of women who wished to breastfeed exclusively
- 47% (38%) of mothers who wished to breastfeed exclusively said their baby was given water or formula in the hospital

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Extent of non-evidence based supplementation

- In a population of low income women, Bolton et al (2009) reported that formula introduction on day 1 postpartum was associated with a significantly shorter breastfeeding duration and that the most dramatic predictor of breastfeeding duration was introduction of formula on day 1
- Since early weaning is associated with the early introduction of formula (Hornell et al. (2001), delaying formula introduction may be highly effective in lengthening the duration of breastfeeding
- According to 2011 mPINC survey, 18% of facilities give breastfed infants glucose water
 - 23.7% of facilities supplement between 50 and 89% of breastfed newborns

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Non-evidenced based supplementation

- Tender et al. (2009) reported that 78% of breastfed infants in their study received formula supplementation while hospitalized.
- Only 13% of these infants received supplementation based on the supplementation guidelines from the ABM
- Reasons included the mother's perception of not enough milk, milk wasn't in at birth, and provider's reasons that included baby was lactose intolerant, to help simplify weaning, mother was taking medications, and to allow the mother to sleep.
- >20% didn't know why baby was supplemented.
- 80% of WIC breastfed babies were given supplements in the hospital, 87% of which was medically unnecessary.
- Infants of mothers who did not attend a prenatal breastfeeding class were 4.7 times more likely to receive formula supplementation in hospital.

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Reasons for Supplementation

- Historical/Anecdotal
 - Unpurified milk
 - Aids meconium passage
 - Mother not rested/fit
 - Mother not cleansed
 - Until milk comes in
 - So mother can rest
 - So the breasts can fill up

- So we know how much the baby is getting
- So the father can feed the baby
- Because the mother thinks she doesn't have enough milk
- Fundamental disbelief that breast milk can adequately nourish a baby

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Every week Dr. Capadocian puts the babies in his big scale and weighs them. One day he says to Colonel "Your babies, the babies aren't getting fast enough any more. You must supplement their feeding with six bottles of pure milk, to which you must add a rather spoonful of honey."

The baby soon went get used to the bottle. Mother and Zephie like to watch them drink. Pure is the greatest and the fastest. He is the one on Colonel's lap. He always cries when his bottle is empty.

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Nature's Match to the Newborn

- ~100cc of colostrum is available in the first 24 h post birth
- Newborn stomach capacity 7-10cc on day 1, ↑ to 14cc on day 2
- Colostrum production is matched to the needs, stores, and anatomy of a newborn infant



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More Reasons for Supplementation

- Convenience
 - Takes less time than teaching a mother how to breastfeed
 - So mother can sleep through the night
 - To calm a fussy baby
 - To keep feedings on schedule
 - So the mother does not have to be available for feedings

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"Medical" Reasons for Supplementation

- To prevent weight loss
 - Water, sugar water, and formula supplements do not prevent physiological weight loss and are not routinely indicated
 - They can contribute to weight loss from lower caloric density and impede weight gain
 - Weight loss may be diuresis from maternal IV fluids

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How Long Do We Go Before the First Feeding? 6, 12, 18, 24 hours?

TABLE IX

Average Age at First Feeding for Normal Weight Infants by Race

Race	6hr	12hr	18hr	Not Specified
4	Range: 0-100	0	0	0
5	Range: 0-100	0	0	17,964
6	Range: 0-100	0	0	100
7	Range: 0-100	0	0	100
8	Range: 0-100	0	0	100
9	Range: 0-100	0	0	100
10	Range: 0-100	0	0	100
11	Range: 0-100	0	0	100
12	Range: 0-100	0	0	100
13	Range: 0-100	0	0	100
14	Range: 0-100	0	0	100
15	Range: 0-100	0	0	100
16	Range: 0-100	0	0	100
17	Range: 0-100	0	0	100
18	Range: 0-100	0	0	100
19	Range: 0-100	0	0	100
20	Range: 0-100	0	0	100
21	Range: 0-100	0	0	100
22	Range: 0-100	0	0	100
23	Range: 0-100	0	0	100
24	Range: 0-100	0	0	100
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34	Range: 0-100	0	0	100
35	Range: 0-100	0	0	100
36	Range: 0-100	0	0	100
37	Range: 0-100	0	0	100
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46	Range: 0-100	0	0	100
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97	Range: 0-100	0	0	100
98	Range: 0-100	0	0	100
99	Range: 0-100	0	0	100
100	Range: 0-100	0	0	100

Meyer HF. Pediatrics 1958; 21:288-297

1956 survey of >2 million infants and 1900 hospitals

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Dehydration

Rodriguez et al. Changes in body composition during the initial hours of life in breastfed healthy term newborns. Biol Neonate 2000; 77:12-16

- Percentage of body water ↑ in 1st 3 days indicating adequate hydration
- Weight of baby ↓ from loss of body solids (stool)
- Passage of several large meconium stools in the first 24-48 hours gives the appearance of inadequate feeding or hydration but requires no intervention unless other feeding parameters are unacceptable

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Renal Function in Newborns

- Normal neonate has 6-44 ml of urine in the bladder at birth
- 17% void at birth, 92% by 24 h, 99% by 48 h
- Oliguric for 1st day due to high circulating levels of antidiuretic hormone after birth
- Infant may void at delivery
- Voiding during the first 2-3 days reflects depletion of extravascular and extracellular fluid reserve and is reflected in diaper counts of 1-2 with amounts increasing following lactogenesis II
- Not an indication for supplementation unless other feeding parameters are unacceptable

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Hyperbilirubinemia

- Bilirubin cannot be flushed from the system with extra water supplements
 - More water = increased bili levels as it displaces calories from the diet
 - Frequent colostrum feeds avoids delay in meconium passage
 - Feeding frequency and bili levels are inversely associated in the first 3 days
- Higher bili levels associated with lower caloric intake
- Frequent feeds with documented colostrum transfer is very important especially with vacuum extraction deliveries

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Hypoglycemia

- Healthy full term normal babies do not develop hypoglycemia simply as a result of underfeeding and do not require routine monitoring of blood glucose levels
- Self-limited decline in blood sugar for first 3 hours followed by counter-regulatory processes and production of ketones as alternate fuel source
- Formula supplementation blunts ketone response in breastfed babies

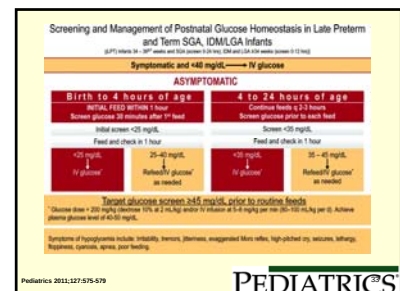
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Postnatal Glucose Homeostasis in Late-Preterm and Term Infants Committee on Fetus and Newborn

PEDIATRICS 2011; 127:575-579.

"Routine screening and monitoring of blood glucose concentration is not needed in healthy term newborn infants after an entirely normal pregnancy and delivery. Blood glucose concentration should only be measured in term infants who have clinical manifestations or who are known to be at risk."

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Plasma glucose levels

Diwakar. Arch Dis Child Fetal Neonatal Ed 2002; 87:F46-F48

- | Remaining unfed following birth did not significantly influence plasma glucose levels at 3 and 6 hours of age in healthy term infants | Feed status | Mean mg/dl |
|---|--------------|------------|
| | 3h unfed | 53.46 |
| | recently fed | 59.14 |
| | 6h unfed | 52 |
| | recently fed | 54 |

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How Long Do We Go Between Feedings?

- Intervals of up to 8 hours between feeds were not associated with excessively low blood glucose concentrations in newborns

(Hawdon et al, 1992)



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Hypoglycemia (cont)

- Separation, chilling, and crying drop blood glucose
 - Keep mother and baby together, skin-to-skin, respond rapidly to crying
- Avoid sugar water by mouth
 - Metabolized rapidly before baby can mount counter-regulatory activities
- Colostrum feedings provide:
 - Protein & fat for gluconeogenesis
 - Enhance ketogenesis
 - Increase gut motility and rapid gastric emptying for quick absorption of nutrients
 - If baby can't latch, spoon feed hand expressed colostrum

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What Else Drops Blood Glucose

- Cold stress
- Separation immediately after birth increases crying
- Crying depletes glycogen stores in the liver



90 m of age	Skin to Skin	Bassinet
glucose	57mg/dL	46mg/dL
crying	70 seconds	47 minutes

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Hypoglycemia

- Chertok et al (2009) looked at breastfeeding immediately following delivery compared with later initiation of breastfeeding on neonatal glucose levels of term infants born to mothers with gestational diabetes.
- The study also compared the glycemic levels of infants who breastfed with those who received formula for their first feed.
- Infants breastfed right after delivery had a significantly lower rate of borderline hypoglycemia than those not breastfed in the early minutes following birth.
- Infants breastfed immediately following birth had significantly higher mean blood glucose levels compared to infants who were not breastfed early.
- Breastfed infants had a significantly higher mean blood glucose level compared to those who were fed formula for their first feed.

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Diabetic mothers may wish to express colostrum, freeze it, and bring to hospital in case supplementation is needed for hypoglycemia

(Cox, 2006)



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INSIDE TRACK

Breastfeeding With Diabetes: You Can!

Be proactive! Breastfeed and you can have diabetes. Or you may have had it for awhile. Breastfeeding is possible. It is good for both you and your baby.

Diabetes is a chronic disease of abnormal blood sugar. It can cause long-term health problems. It can also cause complications during pregnancy. If you have diabetes, you need to take extra steps to keep your blood sugar under control. This will ensure a healthy pregnancy and a healthy baby.

Before You Get Pregnant:

- Get your blood sugar under control.
- Take your medicine as directed.
- Eat a healthy diet.
- Exercise regularly.
- Get regular checkups.

During Pregnancy:

- Monitor your blood sugar closely.
- Eat a healthy diet.
- Exercise regularly.
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After Your Baby Is Born:

- Breastfeed your baby.
- Monitor your blood sugar.
- Eat a healthy diet.
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- Eat a healthy diet.
- Exercise regularly.
- Get regular checkups.

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In-hospital formula supplementation of healthy breastfeeding newborns. Gagnon et al. JHL 2005; 21:397-405

- 564 mother/baby pairs
 - 47.9% received formula supplementation
 - Median time of supplementation 8.4hours
- Risk factors for supplementation
 - Highly anxious mother=2.5 times more supplementation in hospital
 - Time frame of 7:00pm to 9:00am
 - Delay in initiating breastfeeding results in infant more likely to be supplemented

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In-hospital formula supplementation of healthy breastfeeding newborns. Gagnon et al. JHL 2005; 21:397-405 (cont)

- Nurse's rationale for supplementing
 - Sleepy baby
 - Difficult latch or breast refusal
 - Sore nipples
 - Infant behavior
 - Fussy, unsettled, crying
 - Maternal fatigue
 - Insufficient colostrum to satisfy the infant

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Number 1 Reason is Maternal Request

- Formula is benign
- Feeding frequency and volumes
- Baby not getting enough
- Baby fussy
- Cluster feedings by 24 hours of age
- Baby always at the breast and not sleeping
- Nurse choice
- Needs sleep
- Want to do both so babies have bottles in bassinet
- Non-evidence based protocols of supplementing babies of diabetic mothers with formula upon admission to nursery
 - No leche/no milk
 - Night shift
 - Visitors and interruptions

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Supplementation is complex based on number of associated factors

- Primiparous mother
- Body mass index >30
- Emergency cesarean
- Baby admitted to special care 3x more likely to be given formula
- Birthweight <2500gm, 5.5lb
- Non-Baby friendly hospital
- Biro et al. In-hospital formula supplementation of breastfed babies: a population based survey. Birth 2011; 38:302-310



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Consequences of Inappropriate Supplementation

- Decrease in exclusive breastfeeding
- Consistent association between non-medical supplements and early weaning
- Provoke allergies
- Once formula is started, must continue with formula
- Trigger diabetes
- Reduce maternal confidence
- Reduce milk production
- Disturb breastfeeding behaviors (nipple preference)

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Undesired Outcomes

- Infants given non-medically indicated supplements in the first 48 hours of life or offered pacifiers are 2-3 times more likely to have suboptimal breastfeeding behaviors on days 3 and 7
 - Dewey et al. Pediatrics 2003; 112:607-619
- Babies given 2 or more bottles within the first 24 hours are at significant risk for breastfeeding cessation at 7-10 days
 - Hall et al. J Pediatrics 2002; 141:659-664

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More Consequences

- Partial feeding of formula or an intake of <150g of human milk /day 24-48 hours after lactogenesis II is linked to weaning within 4 weeks
 - Sievers et al. Biol Neonate 2003; 83:246-252
- Interferes with lactogenesis III (calibration and maintenance of sufficient milk supply)
 - Daly et al. Exp Physiol 1993; 78:209-220

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Still More Consequences

- Interference with the body's ability to accomplish and sustain the production of copious amounts of milk results in ↓ amounts of milk transfer to the infant and a repeating cycle of more formula supplementation until the body receives the signal for breast involution
 - DREWETT et al. Early Hum Dev 1989; 20:13-23
- Breastfeeding frequency and duration declines quickly after the start of regular formula supplementation; the younger the infant at the start of formula supplementation, the younger they are when they stop breastfeeding
 - Hornell et al. Pediatrics 2001; 107(3)
 - www.pediatrics.org/cgi/content/full/107/3/e38

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Just one bottle...

- Small amounts of formula supplements (1 supplement per 24 h) will result in shifts from a breastfed to a formula-fed gut flora pattern
- Just 1 nanogram of bovine b- lactoalbumin can sensitize a susceptible infant to allergy and diabetes
- Breastfed babies can be sensitized to cow's milk protein by the giving of just one bottle, (inadvertent supplementation, unnecessary supplementation, or planned supplements), in the newborn nursery during the first three days of life

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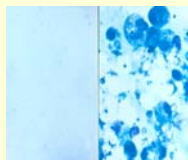
Are you sure you want to give that baby formula?

- May cause a shift in the gut to a more inflammation-prone environment and an increase in intestinal permeability leading to a higher risk for diseases and conditions caused by inflammatory conditions and pathogenic microorganisms
- Non-medical supplementation with formula has consequences

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Adding formula to a developing neonatal gut seldom does anyone a favor

- Failure to regulate intestinal immune responses appropriately can lead to food related allergy, autoimmunity, and inflammatory bowel disorders
- Adding formula to the naive gut can open tight junctions allowing passage of pathogens and allergens
- Removes several layers of immune protection



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GI mucosa

- The tight junctions of the GI mucosa take many weeks to mature and close the gut to whole proteins and pathogens
- Intestinal permeability decreases faster in breastfed infants than in formula-fed infants, with human milk accelerating the maturation of the gut barrier function while formula slows it down

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Pathogenic bacteria

- Babies fed formula have a high gut pH of 5.9-7.3 with putrefactive bacterial species
- Enterococci prevail in formula-fed infants
- Infants fed breast milk and formula mean pH is ~ 5.7-6.0 in first 4 weeks
- Formula supplements given to breastfed babies during the first 7 days of life delays strongly acidic environment
- Breastfed infants who receive supplements develop gut flora and behavior like formula-fed infants

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What can we do about maternal request?

Damota et al. J Hum Lact 2012 Ahead of print

- Trigger event
- Unrealistic expectations
- All crying and waking due to hunger
- Baby wanted formula; not interested in breastfeeding
- Feeding q2h; needed rest
- Formula as a solution



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Maternal request

- Mothers believed that milk would come in right after baby's birth
- Colostrum would be sufficient
- Babies would latch easily on first attempt; difficulty latch interpreted as breast refusal
- Thought they would have large amounts of milk
- Didn't know that small amounts of colostrum was sufficient
- Relied on formula intake to assess how much milk their infants were lacking

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Maternal request

- Not related to "cultural" practices
- Lack of understanding of the breastfeeding process
- Babies were distressed and getting nothing from their breasts
- Crying and waking were used as indicators that their infants were not satisfied
- Mothers overestimated the capabilities of a newborn

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Importance of Breastfeeding Intensity

- Breastfeeding intensity (degree of exclusivity) is predictive of duration of breastfeeding up to 1 year of age
- Breastfeeding rate at 20 weeks is greater for mothers exclusively breastfeeding at 2 weeks
 - Hill et al. Clin Pediatr 1997; 36:345-350
- Exclusive breastfeeding during first month associated with duration longer than 6 months
- Strongest association with breastfeeding duration of 1 year is a higher breastfeeding intensity during months 4-6 (validates ~6 mo of exclusive BF)
 - Piper et al. J Hum Lact 2001; 17:227-232

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Possible Maternal Indications for Supplementation

- Maternal illness or condition
- Geographic separation
- Maternal medications or recreational drugs
- Delayed lactogenesis II
- Intolerable pain/damage to nipples
- Breast anomalies, surgery

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Possible Infant Indications for Supplementation

- Hypoglycemia (symptomatic with no improvement after feeding)
- Impending or significant dehydration
- Weight loss of 8%-10% after day 5
- Meconium stools at day 5
- Inability to transfer milk from the breast
- Hyperbilirubinemia (when infant cannot sustain feedings at breast)
- Conditions that preclude direct feeding at breast or insufficient milk transfer

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Interventions Prior to Supplementation

- Baby to breast within 60-80 minutes post birth
- Skin to skin
 - State modulation for overaroused and underaroused infant
 - Immediate recognition of subtle feeding cues and readiness to feed
- Positioning recommendations or changes
- Latch and sucking incentives at the breast
 - Hand express colostrum and spoon feed
- Assure adequate intake

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Latches that lead to supplementation



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Early Feeding

- Assure that mothers breastfeed in the LDR (Komara et al, 2007).
- Newborn medications can be stocked in the LDR so staff can administer the required medications while avoiding the separation of mothers and babies during the early time post birth.
- Infant formula frequently seen as a fix for breastfeeding problems

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Interventions Prior to Supplementation (con't)

- Use of alternate massage
 - Observation of swallowing to assure intake at each feeding
- Limit visitors
 - Decreased feeding opportunities
 - Cause the infant to shut down from overstimulation
 - Tire out mother
 - Structure rest periods during the day
 - Napping can add 2 extra hours of sleep

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Checklist of interventions

- Offer prenatal education and/or education immediately postdelivery to improve mothers' expectations on the availability and amount of colostrum
- Teach them that not all crying indicates hunger
- Educate mothers regarding the frequency of newborn feeding, how to rest between feedings, and the importance of minimizing the number of visitors and interruptions

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Checklist of interventions

- Assure mothers are taught techniques to maximize colostrum intake at each feeding, such as correct latch and alternate massage
- Inform them that many newborns do not feed effectively the first time they are put to breast



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Checklist of interventions

- Intervene immediately to correct nipple pain or soreness
- Explain the capabilities and behavior of a newborn
- Ascertain how the mother interprets her infant's behavior
- Assure that mothers learn and can perform the basic skills necessary to recognize hunger cues, latch the infant with no pain, feed enough times each 24 hours, and maximize milk intake at each feeding

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Hierarchy of Supplements

- Fresh mother's own milk/colostrum
- Refrigerated mother's own milk
- Frozen and thawed mother's own milk
- Fortified (if necessary) preterm mother's own milk
- Pasteurized donor banked human milk
- Hypoallergenic formula
- Elemental infant formula
- Cow's milk based infant formula
- Soy infant formula
- Water or glucose water

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Average intake of colostrum by healthy breastfed infants

Time	Intake (mL/feed)
1st 24 hours	2-10
24-28 hours	5-15
48-72 hours	15-30
72-96 hours	30-60

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How much to supplement

- 3-5ml/kg/feeding, or
- 5-10ml per feeding on day 1
- 10ml-20ml per feeding on day 2
- 20ml-30ml per feeding on day 3



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Methods of Supplementation Artificial Nipples

- Less elastic, minimal elongation, varying flow rates
- May deliver milk using only vacuum or only compression, rather than both
- Can eliminate central grooving of the tongue
- Can extinguish extrusion reflex
- Can interrupt respiratory and ventilation patterns
- Muscles involved with breastfeeding can be:
 - Weakened or immobilized (masseter, orbicularis oris)
 - Overactive (chin)
 - Malpositioned (tongue pushed backwards)

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Alternatives to Artificial Nipples

- Feeding tube devices
- Finger feeding
- Syringe
- Dropper
- Spoon
- Cup



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Commercial Discharge Bags

- Reduces exclusive breastfeeding at all points measured between 0-6 months
- Almost 90% of new mothers receive commercial discharge bags



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Liability Issues

- Permission (consent forms)
- Battery
- Commercial discharge bags
 - Hospital attorney
 - Risk management department
 - Stock control to notify patients of recalled formula in discharge bags
- Potential harm
- Avoid the problem to begin with

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Stemming the flow of formula

- staff members may perceive infant formula to be free and is used and given away liberally
- hospital staff give large quantities of formula to bf mothers at discharge
- To restrict formula use in breastfed infants to actual medical indications lock up the formula and require staff to log out the formula, noting the formula batch number in case there is a recall, date and time of formula use, patient and staff member's name, and reason for use.



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Stemming the flow of formula

- Some hospitals manage formula use by placing it in a medication distribution system such as Pyxis
- Helps provide information on where additional staff education may be needed and helps reduce unnecessary formula supplementation



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Be creative

- Weigh babies at 4:00am instead of 11:00pm to reduce temptation to supplement
- LCs work from 3:00am to 3:00pm to help with nighttime difficulties



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Joint Commission

- Perinatal Care Core Measure set
- No more than 10% of healthy newborns should receive supplementation
- Measures exclusive breastmilk feeding at discharge
- All hospitals with >1,100 births will be required to implement this measure
- www.usbreastfeeding.org



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Finding Good Policies

- Model Hospital Policy Recommendations Toolkit
- <http://www.cdph.ca.gov/HealthInfo/healthyliving/childfamily/Pages/MainPageofBreastfeedingToolkit.aspx>
- Academy of Breastfeeding Medicine
- <http://www.bfmed.org/Resources/Protocols.aspx>

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