Perfect Storm or Perfect Time for a Bold Change?

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Excited or worried? On January, 2014, the Joint Commission mandate required U.S. hospitals to measure exclusive breastfeeding. Are we headed for the “perfect storm” or the perfect time for change? The broad brushstrokes below paint a worrisome picture:

- Insufficient milk production and suboptimal breastfeeding intake account for the lion’s share of reasons mothers give for stopping breastfeeding, and the resulting health, financial, and emotional impact of these problems is incalculable.
- Sufficient milk production heavily depends on management in the first 3 postpartum days, as the early, frequent, and effective removal of colostrum influences subsequent milk production (the strongest determinant of duration and exclusivity).
- Suboptimal breastfeeding intake is a greater risk for the expanding population of infants born less than full term (<39 weeks) who may have fewer reserves, greater caloric needs, and less effective breastfeeding skills.
- Delays in time-sensitive prevention result from:
  - A problem-oriented versus preventative support system that jumps in only when weight drops, bilirubin level rises, or mothers insist
  - A dwindling number of skilled, accountable, and available bedside nurses to provide timely assistance, coupled with over-reliance on the fragmented, episodic expertise of lactation consultants
  - Undifferentiated lactation management between the low-risk term mother–infant dyad and the at-risk dyad. This results in excessive focus and unrealistic expectations around attachment (latch and milk transfer) in relatively immature newborns.

Will the Joint Commission mandate further complicate the picture with a heightened sense of pressure to withhold supplementation until problems develop? In other words, should we anticipate more discharge delays, re-admissions, and early termination of breastfeeding? Will we have more mothers sent home with complicated advice on pumping, supplementing, and worries that instead of protecting her baby, breastfeeding has put her newborn at risk? What would it take to prevent this from happening? How can we align breastfeeding management with the Institute of Medicine’s call for healthcare delivery to be STEEEP—safe, timely, effective, efficient, equitable, and patient-centered? Can a model of preventative management respect the constraints of time, skills, and resources?

I would suggest we can and should give a fresh face to Baby-friendly care in an era with a different set of challenges due to a steadily growing population of infant–mother dyads at risk for insufficient production and suboptimal intake. Feeding only breastfeeding in the hospital ranks high among the Baby-friendly practices associated with exclusive breastfeeding postdischarge. Yet no amount of skin-to-skin and unrestricted breastfeeding can reduce these two problems when the immature infant with marginal energy stores cannot effectively access sufficient colostrum to meet his or her needs or stimulate an adequate milk supply. Here is a proposal, not yet validated, but reasonable and based on current research. Ideally, reframed lactation support should simplify staff training and provide consistently available, preventative care in a sustainable way.

First consider this common scenario: A 36-week infant, discharged on Day 3 of life, has 10% weight loss and a bilirubin level of borderline concern. The primiparous mother and nursing staff report breastfeeding going well. A lactation consultation is ordered prior to discharge with a follow-up appointment with the pediatrician scheduled for the next day. The mother was advised to pump after breastfeeding and supplement with any pumped milk plus formula.

Although this is common and prudent care, I would suggest this mother has three preventable strikes against her. First, the stimulation of breastmilk production is time-sensitive, beginning immediately after delivery. Expression beginning in the first hour (vs. during hours 2–6) decreases the time to lactogenesis and increases production at 3 weeks by 130% (613.0 mL/day vs. 267.2 mL/day). With insufficient milk production being the most common reason for mothers to discontinue breastfeeding earlier than planned, a critical window of time has been missed.

Second, available studies suggest the superiority of hand expression versus pumps for colostrum expression in the first 48 hours, with one study showing higher yield at each session ($p<0.05$). Additionally, mothers using hand expression versus pumps in the first 12–36 hours feel more comfortable with this technique and are more likely breastfeeding at 2 months (96.1% vs. 72.7%, $p=0.02$). Technology has revolutionized medical practices leading to the assumption and perception that sophisticated equipment is essential and superior to simple manual techniques for colostrum removal. No study comparing the two types of expression shows pumps to be more effective than hands.
Third, this mother learns on the threshold of leaving the supports of the hospital, that despite her best efforts, she has somehow failed at feeding her baby and put him or her in harm’s way. The celebratory event of becoming a new mother is now complicated with doubt and anxiety.

Ideally, preventative measures could have been offered from birth, as 36 weeks is a red flag for breastfeeding complications. Although 24-hour, unrestricted breastfeeding should be encouraged, a simple, risk-free prevention would be frequent hand expression and spoon-feeding of colostrum. It make sense to begin after the first breastfeeding in the first hour, when oxytocin levels are high and colostrum can be easily expressed. There are numerous Baby-friendly alternatives feeding modes. Plastic spoons have the advantage of being inexpensive, nonmedical, reusable, readily available, and convenient for both collection and delivery of small volumes of colostrum, and they are safe and effective for infants ≥32 weeks.14

This simple intervention provides more milk for the baby and more stimulation to the breast. The urgency and focus on latch and milk transfer are reduced. As we have learned from very low birth weight infants, establishment of a robust supply is the single most important factor affecting the exclusivity and duration of breastfeeding.15 A copious milk supply enables easy access and milk transfer, eventually leading to breastfeeding in satiety rather than exhaustion and protracted sessions. Prioritizing attention on latch and milk transfer, appropriate for the term infant, may reduce awareness and urgency measures to protect the establishment of an adequate milk supply and the nutritional needs of the late preterm infant. Put another way, withholding preventative measures in the first 3 days may stack the deck for both serious medical complications as well as early termination of breastfeeding.

Even if all Baby-friendly measures were implemented, what would be the major problems? I would suggest there are two. The first is the lack of accountable, skilled lactation support for all mothers at the bedside, around the clock. The second is the lack of preventative care, with the same management routinely offered to term infants and those with early identifiable risk factors (late preterm, small for gestational age, large for gestational age, etc.). Little problems become time-consuming and less remedial. Critical time is lost waiting for numbers (weight, bilirubin level) before acting. Using lactation specialists to put out fires may be “too little too late” and restricts the number of beneficiaries. The contribution of lactation specialists would be exponentially expanded by using them to train the trainers (the nurses) at the bedside on a daily basis. With a paradigm shift, nurses would be elevated to skilled providers of critically important care, and lactation consultants would be true “consultants.” Can this be done?

A bold but relatively straightforward five-step plan to create a sustainable, proactive, Baby-friendly program could provide for both low- and at-risk infants. Simplicity is integral. Many professionals avoid breastfeeding care when confronted with the escalating use of gadgets, complex and emotionally charged problems, and concerns regarding personal modesty, hence the need for a focused, simplified plan:

1. The first step is to adopt a basic, Baby-friendly breastfeeding hospital policy along with a consensus and commitment among providers and stakeholders to adopt all five steps of this plan. The American Academy of Pediatrics Sample Hospital Breastfeeding Policy16 is one of many such policies.

2. The second step is to teach bedside staff a focused, streamlined curriculum with core competencies critical only to the first 3–5 days. The simple mnemonic “A, B, C” can be used to remember the three main objectives: A = attachment (latch and milk transfer), B = breastmilk production, and C = caloric/nutritional parameters. Learning opportunities include daily bedside responsibilities, shadowing the lactation consultant, participation in group breastfeeding classes on the maternity unit for postpartum mothers, and mandatory written and practical demonstrations of core competencies (“See one, do one, teach one”).

3. The third step is to educate staff to differentiate the care plan of low-risk term infants from that of at-risk dyads. Although the ultimate goal is to enable exclusive breastfeeding for all infants, the objectives for the low-risk dyad can be safely prioritized as “A-B-C”:

- Attachment (latch and milk transfer): Breastfeeding within the first hour is associated with a higher likelihood of effective oral dynamics but may still take time to master, even under ideal circumstances.17,18
- Breastmilk production stimulation: Production is the strongest determinant of long-term breastfeeding and is dependent on the early, frequent, and effective removal of colostrum. The American Academy of Pediatrics and the World Health Organization recommend hand expression as a simple, risk-free technique for every new mother to stimulate production, relax the pressure on perfecting attachment, and soften and empty the breasts when other options are less effective or unavailable.

- Caloric/nutritional parameters: For the term infant in particular, the needs are small, and reserves are adequate; prioritize A and B. Mothers should learn the normalcy of weight loss (up to 10%).19 the anticipated time to regain birth weight (approximately Day 10), the average size of a feed in the first 1–2 days (5 mL), and the best indicator of adequate breastmilk intake (Day 5 bright yellow stools).20 Remembering these two “10’s” and two “5’s” simplifies this.

4. Educate staff to reprioritize the objectives to “C-B-A” for at-risk dyads, to reduce the risk of suboptimal intake and insufficient production:

- Caloric/nutritional parameter: Spoon-feed colos- trum after each breastfeeding, eight or more times per day. Offer either specified volumes or ad libitum feeds to satiety. Spoon-feed donor milk or formula if needed, reassuring mothers that once a robust supply is established, her own milk can be used exclusively. As babies approach term, they become more likely to achieve satiety at the breast, refusing offered expressed supplementation.21

To me, it makes some sense for the occasional mother to add a few drops of water to viscous, tiny volumes of colostrum, which may be difficult to collect. This makes delivery easier and should not be equated with the taboo of water supplementation.
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- **Breastmilk production stimulation:** Begin within the first hours with frequent hand expression, even when collection is not convenient (in the shower, when holding baby, etc.). Add a pump, if needed, with instructions on hands-on pumping (not relying on pump suction alone). In pump-dependent mothers, the highest mean daily volumes at 2 weeks (817 mL/day) and 8 weeks (955 mL/day) have been reported in mothers who combine electric pumping with two hand techniques: frequent hand expression (more than five times/day) in the first 3 days and hands-on pumping after lactogenesis.1,2

- **Attachment (latch and milk transfer):** Ease the pressure on attachment; reassure mothers that high production facilitates transition to full breastfeeding, which may not be achieved until the baby nears term, necessitating the need for close follow-up.

5. Conduct daily, brief bedside rounds with three participants: the mother, her nurse, and the lactation consultant with a simple agenda (with MD support). Prioritize A-B-C for low-risk dyads and C-B-A for at-risk dyads. Keep a focused plan. Determine what skills require additional tutoring and how, where, and by whom this teaching can be offered. Whether it be bedside help, group classes, visual aids, or pre- or postnatal instruction, use the same approach/language in all settings. Hospitals can design their own templates. Many have found useful the free visual aids found on the Stanford University Newborn Web site.23–25

Training bedside nurses to feel accountable, skilled, and comfortable in lactation support requires considerable expense. For this reason, this last step is the critical Lynch pin to sustainability. The daily tutoring of skills cultivates competence, eventually reducing the specialist’s time required at the bedside.

In conclusion, I would suggest we need a proactive management strategy to handle predictably vulnerable infants without placing the baby’s health or breastfeeding outcomes in jeopardy. This five-point plan could potentially offer quality, consistency, and available bedside care for each dyad. Possibly such a program could reduce the need for pumping, bottle feeding, phototherapy, discharge delays, and re-admissions. It may increase breastfeeding rates, the impact of lactation specialists, and staff and patient satisfaction. What’s the harm in trying? What’s the harm in not?

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References


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