



Breastfeeding Update

“Good health begins with breastfeeding.”

BREASTFEEDING THE NEAR TERM INFANT

Elya Boies, MD

Near-term infants, that is, infants born three to five weeks before their due date, are often those infants with “breastfeeding problems”.

I would like to share with you the story of Jane, a seven-day old infant, I saw in the clinic on a Saturday morning for a weight check. In speaking with Jane’s mother and reviewing the discharge summary I learned that her mother was 33 years old, this was her first pregnancy and it was complicated by high blood pressure in the last month. A C-section was performed four weeks before her due date because of the high blood pressure and concerns about the baby. Jane weighed 3300 grams (7lbs 4oz) at birth. Jane was transported to the NICU soon after birth due to difficulties breathing. She received IV fluids, antibiotics, oxygen, and bilirubin lights for jaundice.

Feedings were started by bottle with expressed breast milk and formula with one attempt at breastfeeding at 24 hours of age. Jane and her mother began breastfeeding in earnest on the third day when she was transferred out of the NICU to the postpartum floor. The lactation consultant saw Jane’s mother in the postpartum unit on the first day to instruct her in pumping and again on the third day to help with positioning and latch. At this time “triple feeds” were begun, that is the baby fed at the breast, then received supplemental formula or breastmilk through a tube taped to the breast (SNS) and mom pumped after every feeding. Jane and her mother were discharged on the fifth day with instructions to feed every two to three hours using the triple feed technique. Jane’s discharge weight was 3115 grams (6lb 14oz).

I was seeing Jane two days after discharge. She weighed 3124 grams (up 9 grams from discharge) and on physical exam was alert, healthy, and mildly jaun-

diced. Her parents reported that she would breastfeed every three hours, latch and suckle for about 10 minutes then would become very sleepy. They worked with her for another 30 minutes before giving her 30-40 cc of expressed breast milk via finger feeds. They found the SNS feeding system too cumbersome and were no longer using it. Jane was having yellow-brown stools with each feed.

This case illustrates several important points.

1. The health of the mother before and after delivery can affect the success of breastfeeding. In this case maternal hypertension resulted in a C-section four weeks before the due date resulting in the delivery of a near-term infant. Fortunately Jane’s mother’s blood pressure had returned to normal, she was recovering from her C-section well and had no other health problems.
2. It goes without saying that the infant’s health and state of maturity effect breastfeeding. In this case Jane was ill and needed medical treatment and procedures that precluded effective breastfeeding in the early postpartum period. She recovered quickly, as many near-term babies do, and was ready to start breastfeeding by the third day. However, even though Jane weighed as much as many full-term infants, she did not have the coordination or the stamina of a full term infant and therefore could not achieve or maintain an effective latch or suckle. Keep in mind that a baby that was going to weigh 9lbs at term will weigh about 7 lb at 36 weeks gestation. Those of us taking care of these babies should not be deceived by the size of a near-term baby if they are having difficulties. These infants need to be monitored carefully and adjustments made in feeding routines if they are experiencing difficulties with breastfeeding.

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Published by: SDCBC

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ASK THE EXPERT: PUMPING MILK FOR A PRETERM INFANT

Question: I have just had a 29 week infant who is in the NICU. He didn't eat anything for a week and now is eating only tiny amounts. Why should I be pumping so much and storing milk if he is not using it?

Answer: The single most important factor in establishing successful breastfeeding during and after the NICU stay is the volume of milk produced in the first 1-2 weeks postpartum. Because of the physiology of human milk production, a full milk supply (i.e. enough for a full-term healthy baby) must be established early on by regular nursing/pumping, or the alveolar tissue and receptors developed during pregnancy will rapidly involute. Initiating early pumping (within the first 24 hrs) is associated with higher levels of milk production and longer exclusive and any breastfeeding post-discharge.

Family members and health care professionals sometimes discourage mothers of premature infants from initiating lactation as they feel that providing milk will be an added stress. Several studies indicate that providing milk for their infants helps mothers cope with the emotional stresses surrounding the NICU experience and gives them a tangible claim to their infants.

For the mother, the decision to provide breastmilk for an NICU infant is quite different from the decision to breastfeed a full-time infant. First, the decision is usually made based on health-related issues (the

special benefits of human milk for preterm infants). Second, mothers who did not intend to breastfeed often decide to pump, for at least a short time. Third, mothers are highly influenced by the advice of professionals who care for the infant, feeling thankful for (not coerced by) their guidance, and even resentful if misinformed about formula being equally acceptable.

Health care providers, especially physicians and nurses who care for post-partum women and their NICU infants, must take responsibility for educating mothers about the need for, and methods of, establishing their milk supply. Ideally, these discussions should take place before delivery as well. Every drop of human milk pumped for preterm or ill infants should be considered "liquid gold".



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COMMUNITY SPOTLIGHT

Kelly Barger, RD, CLE, CDE

A big congratulations goes out to Scripps Memorial Hospital Encinitas for being the first San Diego County Hospital to receive the prestigious international "Baby-Friendly™" award in January 2004. Scripps Encinitas is the 42nd hospital in the US and the 7th in California to receive this designation. Internationally there are more than 16,000 Baby-Friendly hospitals and birth centers in 125 countries.

The Baby-Friendly Hospital Initiative (BFHI), launched in 1991, is a global program sponsored by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF). The BFHI encourages and recognizes hospitals and birthing centers that offer an optimal level of care for breastfeeding mothers and their babies.

Based on the "Ten Steps to Successful Breastfeeding," this award recognizes hospitals and birth facilities that offer breastfeeding mothers the information, confidence and skills to successfully initiate and continue breastfeeding their newborns.

Working with Baby-Friendly USA staff, a Certificate of Intent commits the hospital to work toward full implementation of all ten steps re-

quired for certification.

During the year long qualification process, the hospital is required to assess, review and refine its policies and procedures to optimally promote, protect and support breastfeeding. Designation as a "Baby-Friendly" facility requires a rigorous two day on-site assessment.

"All the nursing staff have received 18 hours of lactation training and we have a top-notch experienced lactation staff," states Debbie Hamilton, RN, CLC and Coordinator of Lactation Services. "As a result, women who deliver at our facility can be assured they will receive high quality breastfeeding education and support." Artificial baby-milk is still available on the postpartum unit, but is dispersed using pre-determined guidelines versus being handed out freely.

The San Diego County Breastfeeding Coalition would like to thank ALL of those involved in giving San Diego its first Baby-Friendly Hospital. We appreciate your hard work, determination and support of breastfeeding in our community. Our hope is that other San Diego hospitals will follow in your footsteps.

BREASTFEEDING THE NEAR TERM INFANT

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3. Communication and timely coordination of care are critical to achieving a breastfeeding success story in situations like this. The fact that I had a copy of the discharge summary allowed me to better understand the circumstances of the delivery and Jane's illness that resulted in separation from her mother for the first two to three days of life, introduction of a bottle for the first feeds and delay in initiation of breastfeeding. The ability to see Jane in the office within two days after discharge, even on a weekend, is of great importance since the feeding plan often needs to be adjusted and the health of the infant needs to be evaluated within 24 or 48 hours of discharge.

Let me finish where I left Jane's story. I felt that Jane was not strong enough to try to suckle at the breast for 20-30 minutes, and I also respected the parents' opinion that the SNS feeding routine was too cumbersome for them. I suggested they put her to the breast for a maximum of 10-12 minutes each feed then give her as much expressed breastmilk as she would take with finger feedings every two to three hours. I saw her twice in the first week and weekly until she was four weeks old. She gradually nursed more effectively and for longer periods at the breast and took less supplemental breastmilk after each feed. At four weeks she was thriving, had transitioned to full breastfeeding and was not requiring supplemental feeds. She was able to accomplish this as she developed greater stamina, strength and oral motor coordination.

As a result of careful monitoring and breastfeeding-oriented inpatient care and outpatient care, Jane did not experience any of the potential medical problems these infants may experience. Such problems may include low blood sugar, dehydration, fever, rehospitalization, and brain damage from severe jaundice. On the other hand the benefits of breastmilk may even be greater for the near-term infant than the full-term infant. For these reasons it is important that medical providers are equipped to meet the challenge of helping mothers breastfeed their near-term infant to the greatest extent possible. The success of this breastfeeding story was the result of a dedicated family, comprehensive and coordinated inpatient lactation breastfeeding program, and close outpatient follow-up.

References:

1. Reynolds, A. Breastfeeding and Brain Development. *PCNA* 2001(1) 159-171.
2. Jensen, D., Wallace, S., and Kelsay P. *J Obstet Gynecol Neonatal Nurs.* 1994; 23: 27-32.
3. Wight, N. Breastfeeding the Borderline (Near-Term) Preterm Infant. *Pediatric Annals.* 2003;32:5. 329-336.

Principals of Care for the Near-Term Infant*

1. Communication
 - a. Establish pathway and an order set specifically for breastfeeding the near-term infant
 - b. Develop a written discharge feeding plan for each mother-infant dyad
 - c. Facilitate communication between physician, nurses, and lactation consultants in the inpatient and outpatient settings
 - d. Avoid conflicting advice to mother and family of the near-term infant
2. Assessment
 - a. Objectively assess gestational age and associated risk factors of every infant
 - b. Assess breastfeeding daily on the postpartum floor
 - c. Assess breastfeeding issues in the outpatient setting carefully
3. Timely lactation support in the inpatient and outpatient setting
4. Avoid separation of mother and infant
 - a. Immediate postpartum period as much as possible
 - b. In cases when either mother or infant is hospitalized for medical reasons
5. Monitor and prevent frequently encountered problems in breastfed near-term infant
 - a. Hypoglycemia
 - b. Hypothermia
 - c. Hyperbilirubinemia
 - d. Dehydration and/or excessive weight loss
6. Education
 - a. Ensure ongoing education of staff and care providers of issues specific to breastfeeding the near-term infant in the inpatient and outpatient settings
 - b. Train one or two outpatient office support persons (RN or lactation educator) in breastfeeding support, simple breastfeeding problem solving, and near-term breastfeeding issues.
 - c. Educate parents about breastfeeding the near-term infant
7. Discharge / Follow-up
 - a. Develop criteria for discharge readiness
 - b. Establish discharge feeding plan
 - c. Facilitate outpatient follow-up to assure effective breastfeeding after discharge
 - d. Careful outpatient monitoring of mother and infant

*The "Principals" are in addition to and assume that most of the "Baby Friendly Hospital Initiative" ten steps are in place. Developed in collaboration with Yvonne E. Vaucher, MD, MPH.

SDCBC 2004 MEMBERSHIP DRIVE

JOB CENTER

Your continued support is needed! Become a member.

If you are interested in becoming a member or renewing your membership for 2004, please visit our website at www.breastfeeding.org or contact our office for more information at (858) 966-5981 or email sdcbc@breastfeeding.org.

SDCBC Membership Levels

Sponsor* - \$100 (*Business/Organization/Professional*)

Contributing Member - \$50 (*Individual*)

Friends of the Coalition - any amount under \$50

What is the San Diego County Breastfeeding Coalition?

The San Diego County Breastfeeding Coalition is a non-profit association whose mission is to promote and support breastfeeding through education and outreach in our community.

What are the benefits of being a San Diego County Breastfeeding Coalition Member?

As a member of the San Diego County Breastfeeding Coalition you will:

- Network with a growing body of people dedicated to the promotion and support of breastfeeding,
- Have access to lactation professionals and the most up-to-date breastfeeding resources,
- Receive a free supply of Breastfeeding Resource Guides in English and Spanish,
- Receive a discount for Coalition sponsored education programs,
- Receive a free copy of *"Selling Out Mothers and Babies: Marketing of Breast Milk Substitutes in the USA"* by Marsha Walker, as supplies last.
- Have a home page or link, as appropriate, on the SDCBC's website: www.breastfeeding.org,
- Be listed, with a Sponsor* membership, as appropriate, in the "Breastfeeding Resource Guide" without a fee.

You can show your support of the San Diego County Breastfeeding Coalition by:

- Making a monetary contribution to support coalition activities.
- Donating your time by serving on a committee:

Advocacy/Political Action	Community Outreach
Fundraising	Grant Research
Membership	Professional Outreach
Research and Evaluation	Volunteer Coordination
- Attending Coalition meetings and providing your expertise and experience.

Volunteer Opportunities: If you want to join a motivated group and are interested in joining an active committee, the SDCBC needs you!

Please contact the SDCBC office at (858) 966-5981 or email sdcbc@breastfeeding.org for more info.

BOOK REVIEW

Case Studies in Breastfeeding

Written by Karin Cadwell and Cynthia Turner-Maffei

Published by: Jones and Bartlett Publishers

Reviewed by: Leslie Wynn, RN, PHN

Although this book is geared toward the Lactation Consultant and issues relating to the assessment and management of breastfeeding issues, it is also great for anyone in the health care profession who works with patients. The authors are both active consultants who briefly share the ideal design of a clinic; which is very open and set up to allow and encourage mother to mother interactions. This particular clinic is well known and its professionals are asked to consult on many types of cases relating to breastfeeding, both in the hospital and community.

The authors provide a written and diagrammatic overview of the Eight Level Lactation Consulting Process. In every case study they apply the levels and give the reader insight as to where they apply the information they have gathered. They caution the reader that the first four levels do not happen in order. The Consultants must apply their critical thinking skills to apply the information they have gathered and formulate a solution with the mother. The solutions are very real and with each scenario the mother is consulted as to whether she can carry out the solution. They provide ongoing support by encouraging the mother to return and with a follow up phone call as to how the solution is working.

The case studies that they review are very complex and deal with many issues ranging from latch, undiagnosed illnesses in the mother, unresolved grief in mother, family dynamics and more. Each case is unique in its presentation and resolution.

As a non-lactation professional, it was a great reminder to listen to the entire situation, ask questions, and wait until all the information is gathered before formulating an opinion or "fix". The book was easy to read and really keeps you interested. I would think essential for the new consultant just starting and a nice refresher for those already "in the business".

Interested in what we do? Attend one of our General Coalition Meetings on the second Thursday of each odd month at Sharp Mary Birch Hospital for Women, 3003 Health Center Drive, San Diego, in the Grace Benbough Room, located on the 2nd floor, 3:00 – 5:00 pm. Please call (858) 541-4185 or visit our website for directions. **2004 dates are: March 11, May 13, July 8, September 9, November 11, 2004.**

SAVE THE DATE

The New Mexico Breastfeeding Task Force 10th Annual Conference — Sheraton Old Town Inn, Albuquerque, NM, March 18-19, 2004.

“Advanced Concepts in Breastfeeding: Researching, Educating, and Legislating...the Role of the LC.” For information, visit www.breastfeedingnewmexico.org/meeting.html or contact Jacie Coryell at 505-293-5215 or jacie@swcp.com.

UCSD Lactation Educator and Lactation Consultant Programs: Lactation Educator 2004

March 7-6, April 16-17, May 7-8, & June 25-26, 2004

For more information, visit <http://www.extension.ucsd.edu/>

La Leche League International Lactation Specialist Workshops for 2004 — Breastfeeding: Evidence-Based Success.

Designed for nurses, physicians and lactation specialists who work in a variety of settings including hospitals, clinics and physicians' offices. April 17 - Pittsburgh, PA; April 19 - Atlanta, GA; April 21 - New York, NY; April 23 - Minneapolis, MN; October 16 - Phoenix, AZ; October 18 - Baltimore, MD; October 20 - Boston, MA; & October 22 - Chicago, IL. Visit www.lalecheleague.org/ed/LactSpec04.html, or contact Sally Murphy, Meetings Manager, at (847) 519.7730 ext. 218 or SMurphy@lilli.org.

A Health Care Professional Conference for Continuing Education — Hilton Costa Mesa, 3050 Bristol Street, Costa Mesa, CA, May 28 - 30, 2004.

“Breastfeeding in Today's World.” Hosted by the La Leche League of So. California/Nevada. Visit www.lalecheleaguescnv.org.

La Leche League International 32nd Annual Seminar for Physicians on Breastfeeding — Hyatt Regency Newport, Newport, Rhode Island, July 26-28, 2004.

“Breastfeeding: A Baby's Right, A Physician's Responsibility.” Visit www.lalecheleague.org/ed/PhysSem04.html or contact Sally Murphy at (847) 519-7730 ext. 218 or SMurphy@lilli.org.

Making Breastfeeding the NORM: Clinical, Social & Political Challenges — Holiday Inn on the Bay, San Diego, California, August 20-21, 2004.

Featuring: Tieraona Low Dog, MD; Thomas Hale, RPh, PhD; Molly Pessl, BSN, IBCLC; Audrey Naylor, MD, DrPH, FABM; Lawrence M. Gartner, MD; Yvonne Vaucher, MD, MPH; Eyla Boies, MD; Nancy Wight, MD, IBCLC, FABM. Sponsored by Children's Hospital San Diego in association with the San Diego County Breastfeeding Coalition. Full brochure/registration form at: www.breastfeeding.org. For more information contact Nancy Wight, MD, program chair, or Carol Brown, conference manager at 858-541-4185 or carol.brown@sharp.com.

BREASTFEEDING AND GUILT

Eve Moeran, RN, IBCLC

There is so much concern about making mothers feel guilty if they do not breastfeed. However, perhaps the saddest guilt is the mother who tried and was unsuccessful due to insufficient milk supply, only to be told by well-meaning individuals: “Well, if you hadn't introduced formula this wouldn't have happened”. We need to be kind and considerate to each other, especially as we rarely know the circumstances. It may turn out the cause of low milk supply was entirely beyond the mother's control.

We suspect formula companies are making every effort to keep the government funded National Awareness campaign themed “Babies were born to breastfeed” from getting underway. The goal is to increase the numbers of mothers who breastfeed by illustrating the risks of not breastfeeding.

From the words of Dr. Lawrence Gartner, “We have 25 years or more on the research of the benefits of breastfeeding. We don't tell parents the benefits of car seats; we tell them studies indicate if you do not use a car seat a baby has a greater chance of being killed or injured in

an accident. Thousands of lives are saved every year because of this. We do not hesitate now to discuss the risks of smoking”. These are all health issues, as is the risk of not breastfeeding.

Breastfeeding is a **public health issue**, not just a lifestyle choice. When presented as such by the medical profession, mothers are more likely to choose breastfeeding as the best option for themselves and their infants.

Children who are not exclusively breastfed for 6 months or more are:

- About 40% more likely to develop juvenile onset diabetes
- About 25% more likely to become overweight or obese
- About 60% more likely to suffer from recurrent ear infections
- About 30% more likely to suffer from leukemia
- About 100% more likely to suffer from diarrhea
- About 250% more likely to be hospitalized for respiratory infections

Our goal as healthcare providers is to help mothers begin and enjoy breastfeeding until they find the magic of successful breastfeeding.

POST-DISCHARGE NUTRITION FOR THE BREASTFED FORMER NICU INFANT

Nancy E. Wight, MD, IBCLC, FABM, FAAP

Overview. As survival rates for preterm infants and all NICU patients improve, more attention is being focused on improving the quality of survival through optimal nutritional management. Fortification of human milk has been repeatedly demonstrated to have short-term growth advantages for preterm infants born less than approximately 34 weeks gestation or 1800 g birth weight when given both during and after initial hospitalization (Hall 2001, Griffin 2002). VLBW infants grow faster and have higher bone mineral content up to 1 year of age if provided with additional nutrients (especially protein, calcium and phosphorus). Exclusively breastfed former preterm infants tend to “catch-up” if given sufficient time (2-8 yrs). The optimal growth rate (reference target) has not yet been established for post-discharge preterm infants. It is unclear whether the rapid catch-up growth seen with supplementation is of benefit or harm for long term overall health, growth and neurodevelopment (Hall 2001, Griffin 2002).

Although preterm birth does not limit milk production capacity, preterm infants are vulnerable to under consumption until term⁺ corrected age (Meier 2003). Adequacy of milk supply is a key factor in successful transition to full direct breastfeeding. (Furman 2002) Clinical estimates of milk intake are unreliable (Meier 1994, Scanlon 2002). No alternate feeding method has been shown, as yet, to increase success of direct breastfeeding in preterm infants. At present there are no randomized-controlled trials of methods for transition from bottles or alternate feeding methods to the breast. Discharge planning, started on admission to the NICU, can help assure infants receive appropriate nutrition and mothers reach their breastfeeding goals. Appropriate follow-up is essential (Hall 2001).

Post-Discharge Nutritional Monitoring (modified from Hall 2000)	
Nutritional Assessment	Action Values
Growth	
Weight gain	< 20 gm/day
Linear growth	< 0.5 cm/wk
Head circumference	< 0.5 cm/wk
Biochemical Assessment	
Phosphorus	< 4.5 mg/dL
Alkaline phosphatase	> 450 IU/L
BUN	< 5 mg/ml
Pre-albumin/transthyretin	< 10 mg/dL

Post-discharge Nutrition. All infants < 34 wks or < 1800 g at birth, and other larger infants with nutritional risk factors (CLD, short

gut, neurologic impairment, etc.), should have a complete nutritional assessment prior to discharge which should include both growth parameters (weight, length, head circumference) and biochemical measurements (phosphorus, alkaline phosphatase, urea nitrogen, transthyretin/prealbumin). If the infant is taking 160-80 cc/kg/day and growth parameters are normal or improving (see table) on human milk alone for a week or more prior to discharge, human milk alone should be adequate post-discharge.

If supplementation is deemed necessary, support breastfeeding by having mother directly breastfeed, then substitute from 1-4 feedings per 24 hrs of preterm or post-discharge enhanced formula as needed to reach growth and biochemical goals. Multivitamins with Fe should be added/continued (1 cc/day) for at least 3-6 months, although the exact length of use has yet to be determined. If formula constitutes > 50% of an infant’s daily intake, the dose should be ½ cc per day.

Transition to Full Breastfeeding at Home. Mothers should continue to pump to maintain milk supply for at least 1 month post-discharge. A common mistake is to advise the pump-dependent mother to stop pumping and just breastfeed. Typically the pump is more effective and efficient than the still preterm infant in maintaining production, and the infant is more capable of accessing and maintaining flow when production exceeds demand.

The mother may need to “triple feed” initially. This involves breastfeeding for a limited amount of time, supplementing liberally with previously pumped breastmilk, or formula, if needed, then pumping. When the infant is growing well, and the volume of supplementation is decreasing, the mother can alternate between limited breastfeeds, followed by supplementation and limited breastfeeds followed by pumping. If the infant continues to grow well, then unlimited demand breastfeeding can be tried, anticipating that the infant may request to feed more frequently. Pumping frequency should be tapered slowly, dropping a session every 2-3 days.

Close monitoring with weights and lactation support are important. Initially breastfeeds should be time-limited to 30-40 minutes. Small infants may fall asleep at the breast due to fatigue, not satiety. As clinical estimates of intake at the breast are unreliable, the use of a home scale and test weighing should be considered. Test weighing has been shown not stressful for mothers, but reassuring, so an appropriate amount of supplement can be given. (Hurst 1999). Continue the method of supplementation initiated in the hospital and agreed upon by mother, physician, nurse and lactation consultant, at home. Although cup feedings have been determined safe in preterm infants, the volumes consumed are significantly smaller and the duration of feedings longer, than with a bottle. (Marinelli 2001)

Discharge Planning. Discharge planning should be initiated upon admission with an assessment of mother’s breastfeeding goals and preferences. If a rooming-in suite is available and parents are amenable, a 1-2

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night stay can point out problems and maximize learning. In the week prior to discharge an individualized home discharge nutritional and transition to full breastfeeding plan should be prepared in coordination with the neonatologist, lactation consultant, dietitian, and family, and the plan reviewed with the post-discharge primary physician before discharge. The plan should be based on the skills of the infant, the mother's milk production, and the infant's nutritional needs. It is also important to refer the mother/family to community nutritional and breastfeeding support resources.

Follow-up. Routine primary care follow-up should be arranged as needed. Lactation follow-up should be scheduled for 2-3 days post discharge and thereafter as needed until full direct breastfeeding achieved, or mother ceases breastfeeding. A repeat biochemical assessment is recommended at 1 month post-discharge (Hall, 2001). Some authors suggest repeat biochemical assessments approximately every 2 months until at least 1 year corrected age. Follow-up should also be arranged with the dietician as needed to adjust caloric, protein and other nutrient intake.

Conclusion. There is much we don't know about the optimal growth rates and nutrition for the premature infant after discharge. The average corrected age of preterm infants at discharge is 35-36 weeks and weight is 1800-2000 gm, but infants vary enormously in age, weight, medical condition and nutritional needs. In many parts of the world, preterm infants are discharged much heavier and older than in the USA and have therefore had much more opportunity to mature and learn to breastfeed. Mothers should be encouraged to spend as much

time as possible with their infants in the NICU and supported in their efforts to establish and maintain a full milk supply. Kangaroo care, non-nutritive breastfeeding and earlier direct breastfeeding in the NICU, along with a full milk supply will help mothers continue to provide "liquid gold" for their growing infants long after discharge from the NICU (Furman 2002).

References:

- Furman L, Minich N, Hack M. (2002) Correlates of Lactation in Mothers of Very Low Birth Weight Infants. *Pediatrics* 109(4):e57 www.pediatrics.org/cgi/content/full/109/4/e57
- Griffin JJ. (2002) Postdischarge nutrition for high risk neonates. *Clin Perinatol* 29:327-344
- Hall RT. (2001) Nutritional Follow-Up of the Breastfeeding Premature Infant After Hospital Discharge. *Ped Clin NA* 48(2):453-460
- Hall RT, Carroll RE. (2000) Infant Feeding. *Ped in Review* 21(6):191-200
- Hurst NM, Meier PP, Engstrom JL, et al. (1999) Mothers performing in-home measurement of milk intake during breastfeeding for their preterm infants: Effects on breastfeeding outcomes at 1, 2, and 4 weeks post-NICU discharge. *Pediatr Res (abstr)* 45: 125A
- Marinelli K. (2001) A Comparison of the Safety of Cupfeedings and Bottlefeedings in Premature Infants Whose Mothers Intend to Breastfeed. *J. Perinatol* 21:350-355
- Meier PP. (2003) Supporting Lactation in Mothers with Very Low Birth Weight Infants. *Pediatric Annals* 32(5):317-325
- Meier PP, Engstrom JL, Crichton CL, et al. (1994) A New Scale for In-Home Test-Weighing for Mothers of Preterm and High Risk Infants. *J Hum Lact* 10:163-68
- Scanlon KS, Alexander MP, Serdula MK at al. (2002) Assessment of Infant Feeding: The Validity of Measuring Milk Intake. *Nutrition Reviews* 60(8):235-251

POLITICS, ADVOCACY AND LEGISLATION

Nancy E. Wight, MD, IBCLC, FABM, FAAP

On February 13, 2004 Senator Debra Ortiz (D-Sacramento) introduced SB 1275 to mandate 18 hrs of basic lactation management training for all maternity unit licensed nurses, and hospital policy to prohibit formula marketing, including discharge bags with formula samples. Although SB 1275 is still ambitious, it is more focused than last year's AB 2447 (Goldberg/Ortiz) which managed to elicit objections from the American Academy of Pediatrics, American Hospital Association, nursing organizations and many others. As breastfeeding advocates we sometimes assume that "facts" that are obvious to us, are equally obvious to the general population. The "fact" that giving free formula away in hospitals is a carefully researched, extremely successful method of increasing market share and decreasing exclusive breastfeeding seems logical and well supported by the literature. Formula companies would not continue to spend millions of dollars doing it if it did not work! Unfortunately, not everyone realizes this.

SB 1275 removes physician offices and healthcare providers from

the prohibition on giving away free formula samples, focusing instead on improving hospital maternity unit education (18 hrs) and prescribing hospital policies to prohibit marketing of infant formula and distribution of free formula samples. The penalty (\$500 for each occurrence) has also been removed. A nurse may opt out of the 18hr training by demonstrating proficiency in basic lactation management, in accordance with standards established by the State Dept. of Health Services". Exactly what this means is not delineated.

Although we all hope this legislation will be more successful than AB 2447, it won't be unless we learn from our prior mistakes. We must be sure ALL stakeholders see this legislation as a quality of care and ethical issue, not an additional burden on an already strapped healthcare system. Additional nursing education costs money. Everyone wants "free" gifts. We must also overcome last year's objections and help hospital administrators and other healthcare professionals to recognize they can improve maternal-infant health and decrease healthcare costs by improving the knowledge base of perinatal care providers and by rejecting "free" formula and discharge bags.

B reastfeeding U pdate

“Breastfeeding the High Risk Infant”

SDCBC's Newsletter for March 2004



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“Good health begins with breastfeeding.”

SEE THIS NEWSLETTER ON THE WEB AT
www.breastfeeding.org

MARCH OF DIMES

Lorraine Martinez

There is a silent enemy taking the lives of more than 50 babies every hour in the United States. Imagine having a baby three months early and weighing only one pound. Your baby is so small; it fits in the palm of your hand. Every breath is a struggle. You are terrified because you don't know if your child will even survive and you don't know why this has happened.

Premature birth is a huge problem, yet most people don't realize it. It is the leading cause of death in the first month of life. Prematurity is defined as babies being born more than three weeks before their due date (before 37 weeks gestation).

In San Diego County, 10.3% of babies are born premature. Many of these babies suffer lifelong disabilities as a result of being born too soon. Mental retardation, vision and hearing problems, chronic lung disease, asthma and cerebral palsy are just a few of the possible consequences of premature birth.

The March of Dimes has launched a 5-year campaign to increase public awareness of prematurity and to decrease the rate of prematurity.

The first national Prematurity Awareness Day was held on Tuesday, November 18, 2003.

A major focus of the campaign is to teach women to recognize the signs and symptoms of preterm labor. While some women may not have any symptoms, warning signs for preterm labor may include:

- Contractions every 10 minutes or more often
- Low, dull backache
- The feeling that your baby is pushing down
- Cramps that feel like your period
- Cramps with or without diarrhea
- Clear, pink or brownish fluid (water) leaking from vagina

Women are urged to contact their health care provider when they have any signs of preterm labor.

For more information about educational materials, contact Lorraine Martinez at the San Diego-Imperial Division of the March of Dimes at (858) 576-1211 ext. 217 or go to our website www.marchofdimes.com.