

# Leading Lactation Insights

Spring 2024

*The Leading Lactation Insights newsletter unveils the latest breastfeeding topics and clinical practice solutions, addresses issues challenging the lactation community, and announces upcoming webinars and conferences.*

## CONTRIBUTORS/WRITERS

Katie McGee, RN, BSN, IBCLC  
Education Consultant  
Westchester, IL.

Maria Sienkiewicz Lennon, MSN,  
CNM, IBCLC  
Nurse-Midwife, Perinatal Education  
Consultant  
Sedona, AZ.

Jess Sember, MSN, RN, IBCLC  
Medical Affairs Education Manager  
Medela LLC  
Bloomsburg, PA

## FEATURED STORIES THIS MONTH

### NEWS YOU CAN USE

*Katie McGee - Contributor*

- Keep one eye on the finish line
- We don't get these days back:
  - Maintain Milk Supply to continue beyond NICU discharge

### HUMAN MILK EDUCATION

*Jess Sember - Contributor*

- Human Milk Monthly Webinars
- Professional Resources
  - Changes to Leading Lactation Insights
- Medela University

### CLINICAL PEARLS IN LACTATION

*Maria Sienkiewicz Lennon - Writer*

- Human Milk Institute Symposium

### TOOLS YOU CAN USE

*Maria Sienkiewicz Lennon – Writer*

- The ultimate guide to resources for lactation professionals
- Medela Quality Improvement Workshop

# Leading Lactation Insights

## NEWS YOU CAN USE

*Keep one eye on the finish line  
written by Katie McGee BSN, RN, IBCLC*

*Discharged from the NICU with a growing baby.....**AND** a milk supply*

High-dose long-exposure Mother's Own Milk (MOM) is the most beneficial nutrition for the VLBW preterm infant. For babies born preterm, MOM reduces the risk of serious or deadly complications. Yet, despite maternal goals of provision of MOM beyond discharge, this is all too often not achieved. Insufficient supply is the main reason babies born prematurely are often not going home from the NICU being fed MOM. (Parker 2024). Additionally, VLBWs are routinely discharged with weight less than 10th percentile (Kim 2024).



*Informed decision making making **avoids**,  
"I wish someone would have told me."*

It is a time of intense maternal stress and shock following an unanticipated early delivery. Lactation professionals are keenly aware of the unwanted maternal separation from the baby, the physical pain of surgical delivery, and the resulting need for physical and mental recovery. Yet, there is such an important task to carry out: Ensuring the mother of the VLBW makes a well-informed decision about provision of MOM. It may seem like the kindest act to leave a new NICU mom in peace. However, there is an urgency to the process, and the time for initiating a milk supply is slipping away (Parker 2015).

MOM is to be prioritized over every other form of nutrition including Donor Human Milk. (Kim 2024). When fully informed, it is common for the feeding decision to change from formula to MOM (Miracle 2004). Confidently proceed, understanding maternal participation in feeding decisions is both healing and empowering. Emphasize the avoidance of NEC and other serious complications through provision of MOM avoidance of formula. Convey a sense of urgency to get started, and the negative impact of waiting. Offer encouragement as well as empathetic assistance throughout.

### **So much to say, so little time**

Possible research-supported phrases:

- ✓ Your milk is the best possible nutrition and protection for your baby
- ✓ Timing matters. It is important that we get started quickly
- ✓ There is nothing that compares to your milk for your baby
- ✓ If you decide to start, I can help you hold/position the pump and collect any milk
- ✓ I will help you collect the milk and bring it to your baby's care team
- ✓ You are doing such a great job

# Leading Lactation **Insights**

## NEWS YOU CAN USE

*We don't get these days back:  
Maintain Milk Supply to continue beyond NICU discharge  
written by Katie McGee BSN, RN, IBCLC*

### **Ultra precise pumping to support Secretory Activation and Coming to Volume**



The critical window of the first 14 days comes and goes quickly. During this time, adjust what can be modified (mainly pumping) for the pump-dependent mother. Assist in making all of the controllable variables ideal at this time by removing barriers to pumping to help with achievement of “coming to volume” (removing 500mLs/Day by day 14 postpartum). “Achievement of CTV independently predicts receipt of MOM at NICU discharge in preterm VLBW infants” (Hoban 2018). Therefore, creation of an ideal pumping procedure which includes double pumping in well-fitted shields with a multi-user pump with initiation technology, (such as Symphony®) is invaluable for this population. Ongoing pumping assessments, education and support with the understanding of the complex emotional and physical challenges of having a VLBW baby in the NICU.

Currently, Secretory Activation (SA) is limited to measuring volume or maternal feedback while utilizing standard pumping protocols. However, SA is often delayed in this population (Hoban, 2021). This one-size-fits-all approach will give way to personalized, data driven breast pumping interventions in real time (Parker, 2024). “Maternal Biomarkers (MBMs) hold the potential to optimize personalized breast pump strategies for mothers of preterm infants during the early critical window with intervention strategies likely to be most effective in achieving adequate long term MOM provision (Parker, 2024).”

### **Encourage and facilitate oral immune therapy**

Allow maternal assistance with oral immune therapy while detailing what it is doing for her baby. Explain the rapidly increasing awareness of the irreplaceable immunologic value of oral immune therapy and resulting benefits. These include weight gain, transfer of immune bioactive factors (IgA), reduced sepsis, lower infections. (Kim 2024)

This 2024 publication by Dr. Sarah Reyes in partnership with Medela will enhance what you already knew about colostrum!

[Nurturing infant drop by drop: Oral administration of colostrum](#)

These are hard weeks for the family with a VLBW baby in the NICU. Encourage skin to skin. Check in often on mom providing MOM and provide lots of encouragement.



### **#1 on VLBW Babies To Do list = GROW**

Proactively focus on the baby's emergent period of growth throughout the stay, and specifically periods of times the baby is intensely experiencing even more demanding growth. Appreciation of the risk of malnutrition and the impact on the baby both short and long term is an important consideration. Communicating to the mother the time of intense, rapid growth for the VLBW can occur simultaneously with education surrounding MOM as the strongly-preferred primary nutrition.

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## #1 on VLBW Babies To Do list = GROW

**True story:** “My VLBW babies were not growing well. They had hit a plateau despite receiving only my milk. The medical team asked me to pump hindmilk for a week or so. A blank piece of graph paper was placed on the end of my baby’s bed. Watching the line going up was a visual trophy delivered to me daily. The clear impact I was having on my babies’ growth was empowering. All it took was a simple piece of paper and an extra moment from the nurse.”



### Possible research-supported phrase:

- ✓ “Your (VLBW NICU) baby’s growth needs are similar to an adult gaining 2.5 to 3 pounds a day!” (Kim 2024).

By keeping an eye on discharge even from the time of birth, and incorporating research proven strategies, it is possible to end the NICU stay with a growing baby and a milk supply, too!

### References:

Hoban R, Bigger H, Schoeny M, et al. . Milk volume at 2 weeks predicts mother's own milk feeding at neonatal intensive care unit discharge for very low birthweight infants. *Breastfeed Med* 2018;13(2):135–141; doi: 10.1089/bfm.2017.0159

Hoban R, Medina Poelinitz C, Somerset E, Tat Lai C, Janes J, Patel AL, Geddes D, Meier PP. Mother's Own Milk Biomarkers Predict Coming to Volume in Pump-Dependent Mothers of Preterm Infants. *J Pediatr*. 2021 Jan;228:44-52.e3. doi: 10.1016/j.jpeds.2020.09.010. Epub 2020 Sep 9. PMID: 32916143.

Kim JH. Providing Optimal Nutrition to Very Low Birthweight Infants in the NICU. *Neoreviews*. 2023 May 1;24(5):e271-e284. doi: 10.1542/neo.24-5-e271. PMID: 37122057.

Miracle DJ, Meier PP, Bennett PA. Mothers' decisions to change from formula to mothers' milk for very-low-birth-weight infants. *J Obstet Gynecol Neonatal Nurs*. 2004 Nov-Dec;33(6):692-703. doi: 10.1177/0884217504270665. PMID: 15561657.

Parker LA, Hoban R, Bendixen MM, Medina-Poelinitz C, Johnson TJ, Meier PP. Milk Biomarkers of Secretory Activation in Breast Pump-Dependent Mothers of Preterm Infants: An Integrative Review. *Breastfeed Med*. 2024 Jan;19(1):3-16. doi: 10.1089/bfm.2023.0107. PMID: 38241129; PMCID: PMC10818056.

Parker LA, Pruitt J, Monk A, Lambert MT, Lorca GL, Neu J. Oral Care in Critically Ill Infants and the Potential Effect on Infant Health: An Integrative Review. *Crit Care Nurse*. 2023 Aug 1;43(4):39-50. doi: 10.4037/ccn2023902. PMID: 37524370.

Parker LA, Sullivan S, Krueger C, Mueller M. Association of timing of initiation of breastmilk expression on milk volume and timing of lactogenesis stage II among mothers of very low-birth-weight infants. *Breastfeed Med*. 2015 Mar;10(2):84-91. doi: 10.1089/bfm.2014.0089. Epub 2015 Feb 6. PMID: 25659030; PMCID: PMC4352698.

# Leading Lactation Insights

## HUMAN MILK EDUCATION

### Live Human Milk Webinars

Our live webinars have moved to Tuesdays.

On Tuesday, April 9th, Prof Matthias Keller will present a [webinar](#): Taking ownership: Strategies to bring evidence into clinical practice

On Tuesday, May 14th, Jessica Brumley, CNM, Ph.D, will present a [webinar](#): Consensus Statement/Early Effective Initiation for Mothers with Risk Factors

Complimentary registration is now open, click on links provided above or visit [Medela Webinars](#)

### PROFESSIONAL RESOURCES

#### Continuing Education

As your trusted partner, Medela is committed to supporting, promoting and providing the latest breastfeeding research through comprehensive education. Our free evidence-based online courses and live monthly webinars are designed to impact and improve practice. These education courses and live monthly webinars offer Nursing Contact Hours.

#### Medela University

We are pleased to announce that we have transitioned to a new and improved learning platform, Medela University, on January 31st 2024 to serve all your Breastfeeding and Lactation learning needs. You can register by clicking the link below to continue your educational journey with us. You can use the same email-address and password to register with the new platform. All of the courses that are available on our existing platform are also available on Medela University with many more to come!

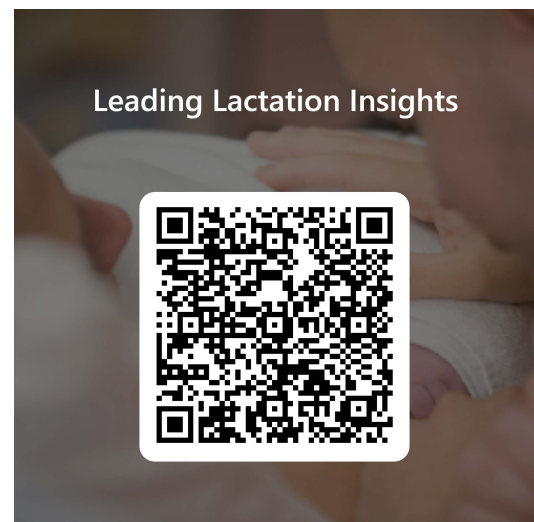
Please Register here: [Medela University Breastfeeding & Lactation - global online education](#)

### Leading Lactation Insights

Leading Lactation Insights is now a **quarterly newsletter**. It features factual and scientific information. It covers cutting-edge breastfeeding & lactation research, clinical news, and expert insights for IBCLCs, lactation consultants, and maternal health professionals.

We would like your **feedback** about the newsletter to ensure we are meeting your needs.

Would you please take a few minutes to complete the survey via QR code below?





## CLINICAL PEARLS IN LACTATION

*Human Milk Institute Symposium  
Maria Sienkiewicz Lennon, MSN, CNM, IBCLC*

**I just returned from one of the best conferences I've ever attended, *Human Milk Institute Symposium 2024*, and I want to tell you all about it!**

Did you know there is a [Human Milk Institute \(HMI\)](#) in the United States at the University of California at San Diego? There are over 40 faculty members on staff from diverse and multidisciplinary backgrounds; this world class institute is a human milk “think tank” which runs the gamut from conceptualization to action.

The HMI’s purpose is “to accelerate our understanding of human milk and apply that knowledge to improve lifelong health worldwide.”

The Human Milk Institute researchers, in collaboration with infectious disease pediatricians at UCLA, were able to determine that the SARS-CoV-2 virus was not present in quantities that could infect a baby, and that pasteurization eliminated any traces of it in donated milk. That study helped change practice in the US and babies of mothers infected with the virus were no longer separated and were once again allowed to breastfeed.



**“We see beyond challenges and inspire people to join us in our mission.” – HMI.**

### **Symposium – “A Shared Vision for Human Milk: Synergizing Research, Clinical Care and Equitable Access”**

The [second HMI symposium](#) was held at the Scripps Forum in San Diego and speakers from multiple disciplines presented on how they are working to promote, support and protect human milk. Attendees were from all over the US and the world.

The [speakers](#) were amazing! Speakers included Lars Bode, director of the HMI whose work on Human Milk Oligosaccharides (HMOs) is changing the world, Nigel Rollins, MD, from the World Health Organization, Leyla Sahin, MD, representative from the FDA, NEC Society Executive Director, Jennifer Canvasser, MSW, as well as researchers from other disciplines who are looking at human milk and how it can be used as therapy for cardiometabolic and neurodegenerative disorders.

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## *Important points from the symposium:*

- ✓ Dose-Response relationship of human milk– more milk and longer exposure to HM = more benefits to both babies and mothers.
- ✓ When feeding a preterm infant, we are actually feeding a fetus. Preterm milk is similar to amniotic fluid, especially anti-inflammatory cytokine profiles.
- ✓ Human milk and brain development – With Mother’s Own Milk (MOM) there is better neurodevelopment and neuroprotection; larger brain volumes are seen on MRI. There is mature white matter microstructure, deep grey matter, and hippocampus development.
- ✓ Lactoferrin benefits the brain as well as the immune system.
- ✓ US HIV guidelines have changed. HIV positive no longer means no breastfeeding.
- ✓ DSLNT - an HMO identified as important in prevention of NEC. There is interindividual variation in HMO composition and explains why some infants develop NEC even though they receive HM.
- ✓ Diagnostics: Now able to identify MOM or Donor Human Milk (DHM) with sufficient DSLNT

## *Networking at the event*

There were multiple opportunities to network with the experts as well as the other attendees. At lunch one day I had the good fortune to sit with a postdoctoral microbiologist who was researching the storage of human milk and the growth of microbes. Where else, other than at this conference would a lactation consultant get the opportunity to chat and bring up considerations that the investigator had not yet considered? How often do we get the opportunity to learn about the latest developments in the science of breastfeeding and human milk? And from the world’s most renowned human milk scientists? Conversations were happening among diverse professionals all over the Symposium grounds.

## *What now?*

The field of lactation is expanding, and much is happening in the world of Human Milk. We are at the forefront of new discoveries which can literally impact global lifelong health. It is imperative for clinicians to be present, soaking up wisdom from experts in all aspects of human milk research, broadening our knowledge base, collaborating with scientists, and sharing our stories.

The next HMI Symposium will be [March 4-6, 2025](#). Mark your calendars and plan to attend. Come to the table and represent your profession, share how your local efforts contribute to the global community, network with experts and share your expertise. **Be there. Join the mission. You’ll be amazed.**

# Leading Lactation **Insights**

## TOOLS YOU CAN USE

*Medela QI Workshop*

*Maria Sienkiewicz Lennon, MSN, CNM, IBCLC*

Building on the excitement of the HMI Symposium, Medela held an incredible Quality Improvement (QI) Workshop, **Bridging Human Milk Research to Increase Human Milk in the NICU** for a small number of clinicians from hospitals across the US.

### **QI Workshop Speakers**

✓ Dr. Paula Meier

✓ Rose Horton, MSN, RNC

✓ Dr. Jae Kim

✓ Dr. Diane Spatz

✓ Dr. Leslie  
Parker



Human milk =  Disease

### **Group Activity**

We had the opportunity to sit around tables and talk with the speakers; subject matter experts and some of the leading researchers and clinicians in their fields! Imagine sitting in my place and being able to ask for their input on incorporating a QI project!

We discussed what we would like to accomplish in our own institutions by identifying a problem, discussing challenges, barriers we face, how to standardize our approach and what outcome measurement we hope to achieve.

Most of the information was directed to increasing human milk use in the NICU. Even though I work mainly with mothers of term and late preterm infants, I was able to extrapolate information and will use it to help my patient population.

### **Riveting Concepts from QI Workshop**

- Point of Care Testing (POCT) of sodium in milk can determine when Secretory Activation has occurred in our mothers. This information can be crucial in helping mothers with risk factors.
- Informing mothers about the SCIENCE of human milk. Mothers want to and deserve to know how their milk protects their babies from short and long term morbidities with life saving components.
- The importance of the critical first 2 weeks. If we can focus our education, plan our individualized interventions, and monitor milk supply, we can help mothers come to volume (> 500 mL/24 hours) by Day 14 and increase the number of mothers who will meet their breastfeeding goals.
- Institutional change can take a long time but beginning with standardizing best practices and care for our patients is a great start.

*In the year to follow, we hope to see change in our institutions. Going forth with guidance from the team of experts, we plan to work on our QI projects, and continue to communicate with the goal of providing more human milk to all the babies in our care.*



# Leading Lactation **Insights**

## TOOLS YOU CAN USE

*The ultimate guide to resources for lactation professionals*  
*Maria Sienkiewicz Lennon, MSN, CNM, IBCLC*

At both the HMI Symposium and the Medela QI Workshop, we were incredibly fortunate to have access to myriad resources and tools which can be accessed for free and impact the care of our patients and community.

### *From the HMI Symposium*

#### [NEC Society](#)

This organization is dedicated to building a world without necrotizing enterocolitis (NEC) through research, advocacy, and education. The NEC Society's work combines the patient-family perspective with solutions based on the best available scientific evidence.

#### [Lancet Series on Breastfeeding](#)

A global perspective on how marketing of commercial formula has impacted breastfeeding.

#### [CDC guidelines on HIV and Breastfeeding](#)

Yes, mothers who are HIV+ can breastfeed in certain circumstances per the new guidelines.

#### [WHO Guidelines on HIV and Breastfeeding](#)

### *From the Medela QI Workshop*

#### [Article in Neoreviews](#)

Kim, JH Providing Optimal Nutrition to VLBW Infants in the NICU. Neoreviews May 2023; 24(5): e271 – e284. DOI: 10.1542/neo.24-5-e271.

### *From the Medela QI Workshop*

#### [PROVIDE Training Compendium](#)

An open access, evidence-based resource helping healthcare professionals implement lifesaving mothers' own milk feeding practices for infants in intensive care worldwide.

This toolkit includes 34 educational videos, galleries of images, 23 information sheets in English and Spanish, and MORE. (Even though this was created for the NICU population, there is much that can be used in the maternity unit for mothers of late preterm and term infants).

#### [Article in JOGNN](#)

Association of Women's Health, Obstetric and Neonatal Nurses. The use of human milk during parent-newborn separation. J Obstet Gynecol Neonatal Nurs. 2021. Sep;50(5):e9 – e42. <https://doi.10.1016/j.jogn.2021.06.003>. Epub2021. Aug 6. PMID: 34373149.

#### [Video](#)

From The Children's Hospital of Philadelphia; The Power of Pumping.