CAPE FEAR VALLEY NEONATAL ICU

Expressions

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EXCLUSIVE HUMAN MILK CAN SIGNIFICANTLY REDUCE THE RISK OF -

Necrotizing enterocolitis by up to 86%

Ear infections by up to 50%

Serious respiratory tract infections by 72%

Infant re-admissions by 60%

Schanler, R.J.,et.al (1999). Feeding strategies for premature infants: Beneficial outcomes of feeding fortified human milk versus preterm formula. *Pediatrics, 103(6),* 1150-1157.

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Human Milk Initiative Phase II - Let's Have a PQCNC!

PQCNC

Over the last year and a half, the NICU at Cape Fear Valley Medical Center (CFVMC) has participated in the Human Milk Initiative with the Perinatal Quality Collaborative of North Carolina (PQCNC). The first phase of this initiative identified both supports and barriers to getting human milk for babies less than 1500 grams. Fourteen NICUs across the state participated in this initiative with the goal of increasing the number of very low birth weight babies receiving human milk for the first 28 days of life.

With the first phase of the Human Milk Initiative completed, CFVMC is moving forward with participation in Phase II. The initiative is focused on reducing care variations in order to increase the number of infants who are nourished by mother's milk. With this direction in mind, PQCNC's goal is that North Carolina will increase the exclusive use of human milk in ELBW infants (<1500 grams at birth) during the first 28 days of life by 50%.

CFVMC's team has participated in monthly webinars that collaborate with other NICUs across the state who are also participating in this initiative. At these webinars, we discuss our individual action plans aimed at increasing the use of human milk. PQCNC helps each participating hospital to form its own action plan and supports the work that each team does. Collaboration is strongly encouraged, and many ideas come to us from other groups across the state. From these meetings, our team has decided that our focus will be -

- Skin-to-skin (S2S)
- Early contact with mothers
- Tracking the pump logs

For women who are pump dependent, the first 2 weeks after birth are crucial to establishing an adequate milk supply. After those 2 weeks have passed, improvement is nearly impossible. That is why establishing pumping patterns through pump logs is so important!

Why Exclusive Human Milk?

"The feeding of human milk during the NICU stay reduces the risk of short and long term morbidities in premature infants. Including enteral feeding intolerance, nosocomial infection, NEC, chronic lung disease, retinopathy of prematurity, developmental and neuro cognitive delay and rehospitalization after NICU discharge.

Recent evidence suggests that the impact of human milk on improving infant health outcomes is linked to specific critical exposure periods in the post-birth period during which the exclusive use of human milk and the avoidance of formula may be most important. "

Meier, P., et al. (2010). Improving the use of human milk during and after the NICU stay. *Clinics in Perinatology, 37 (1),* 217-245.

Skin-to-Skin Is In!

It has been 42 years since the practice of skin-to-skin (S2S) was first studied. Since those early studies, the practice of S2S, chest-to-chest contact between a mother and her preterm infant, has evolved. Originally referred to as Kangaroo Care, S2S was a life-saving measure in Columbia, South America, where it was first reported in the early 1970s as a way to save babies without access to incubators. It would be 20 years before the first reports of nurses in the U.S. and Europe adopting the practice as part of neonatal care. Today, S2S is not only endorsed, but is recommended as a standard of care by the AAP, AHA, AWHONN, NANN, and the WHO. The CDC endorses S2S with full-term infants within the first minutes after birth to be continued until the first feeding is completed. Benefits extend to the preterm mother-baby dyad as well and include -

- Temperature control,
- Better quality of sleep,
- Greater weight gain
- Enhanced brain development
- Improved breastfeeding and/or pumping, and
- Parent/infant bonding.

Although there is evidence-based research to support these claims, adoption of S2S as a standard of practice is slow to progress. Our NICU has come a long way from the days of "hands off". Today we see the benefit of parental involvement in their baby's care and encourage them to be part of the team caring for their baby.

So, what are the barriers? Lack of understanding about the concept by both nurses and parents is the largest barrier to overcome. In our unit, S2S is supported by the newly revised holding policy. This policy clears the way for most infants to be held. Weight and respiratory status are no longer the deciding factor for holding. Instead, the overall stability of an infant and the parent's willingness to commit to an extended period of time (a minimum of 45 minutes) are used as criteria. Most babies are medically stable for holding. Do you Kangaroo?

References:

Ludington-Hoe, S.M. (2011). Thirty years of kangaroo care and practice. *Neonatal Network, 30(5),* 357-362.

Hardy, W. (2011). Integration of kangaroo care into routine caregiving in the NICU– What is stopping you? *Advances in Neonatal Care, 11(2),* 119-121.

"The reason most frequently cited by mothers for not breastfeeding (62%) was "not knowing anyone who had ever breastfed," which they subsequently qualified by saying they did not "decide" as much as they "assumed" that they too would formula-feed."

Meier, P., et al. (2004). The Rush Mothers' Milk Club: Breastfeeding interventions for mothers with very-low-birth-weight infants. *JOGNN, 33(2),* 164-174.

In the Beginning.....

- **Gastrointestinal flora is sterile**
- **Colonization of the gut occurs with delivery**
- **Flora is diet dependent by the 4th day of life**
- **Breast milk creates an increased gut pH making it difficult for bacteria to replicate - Milk Is Protective**
- **Formula creates a decreased gut pH and is not protective**
- **Gut pH recovery after any formula feeding takes 2-4 weeks**

Moo-vers and Shakers

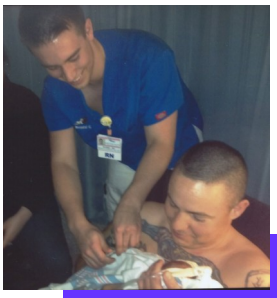
Over the last months and years, there have been many changes in how we care for babies and their families. Parent Advisory Council …bubble CPAP… S2S…and the list goes on.

Change is never easy. So, we would like to recognize those individuals in the NICU who have begun to embrace those changes, even when they have not been easy.

So, look who got caught helping parents with S2S!

- Cindy Andrews
- Shari Brinson
- Daniel Brewer
- Tina England
- Sue Hicks
- Sabine Jacob
- Alyson Morketter
- Christine Odiorne
- Laura Praslee

And Elaine Price was able to feed mother's milk to her patient at 1 $^{1}/_{2}$ hour of age! Way to go!



Welcome to Augusta Rodriguez, IBCLC! Augusta is a welcome addition to our efforts to increase breastmilk use in the NICU!

Let's Keep in Contact...

Making that initial contact with mom after delivery to discuss providing milk for her baby is one of the most important steps that we can make as nurses caring for preterm babies, and the way that we monitor our progress is through completing the orange Breast Milk Contact Sheets. The bedside nurse is the key contact point for mom for information on her baby and how to keep a supply of milk readily available throughout his/her stay in the NICU. When you make the initial contact with mom you not only can explain the importance of early breast milk feeding, but provide mom with an update on her baby. We now have the added resource of Augusta Rodriguez, our Lactation Consultant (LC). The LC is a valuable resource in helping to obtain colostrum for the first feeding and helping mom with hand expression of milk.

Key points to remember when talking to mom are covered in the acronym "MILK".

M – Make Contact
Within 4 hours
Educate mom on the Importance of early breast milk
Present admission packet
Bring supplies

I – Inclusions in the notes section
Majority of moms medically stable to pump
Only brief explanation necessary for exclusions, i.e., mom medicated

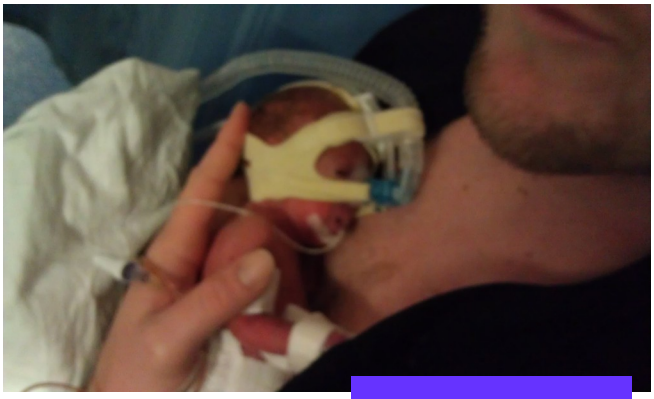
L – Label the form
Allows credit for work done

K - Keep the checklist with the admission paperwork,
Then place in Loretta's or Trisha's mailbox

The Breastfeeding Committee is still busy collecting the orange Breast Milk Contact Sheets. We are currently monitoring them in groups of ten admissions, and our progress is presented on the run charts created by Dr. Gallaher. The charts allow us to see not only how we are doing in making contact with our moms, but also to check on the timeliness of the response. We are still working on achieving our goal of seeing 100% of these sheets turned in, and we appreciate all that you do in helping us achieve this goal!

Making that initial contact with mom after delivery is one of the most important steps that we can make...

S2S...Not Just For Mothers!



To make it easier for the CFV Team to find info, please log when you put babies S2S and the pump log information in the Miscellaneous column on your baby's flowsheet.

Are We Coercing Mothers?

Although the benefits of human milk feeding for premature infants are well documented, many obstetricians, pediatricians and nurses remain reluctant to encourage mother's to provide their milk and often simply accept the mother's decision to formula feed.

Recent research has dispelled many of these concerns and has demonstrated that provider encouragement of human milk feeding for premature infants is effective regardless of the social and ethnic background of families. A recent review of the ethical issues related to promoting breastmilk concluded that fully informing mothers of the health benefits of human milk was an ethical responsibility for health care professionals. In addition, concerns that promotion of human milk feeding may make women feel guilty, coerced, or forced into changing their decision were abated in a study of 21 mothers of VLBW infants who changed their decision almost immediately after learning that their milk was a critical component in the overall management of their infants' NICU plan of care.

References:

Meier, P., et al. (2004). The Rush Mothers' Milk Club: Breastfeeding interventions for mothers with very-low-birth-weight infants. *JOGNN, 33(2),* 164-174.

Miracle, D.J. & Fredland, V. (2007). Provider encouragement of breastfeeding: Efficacy and ethics. *J Midwifery Womens Health, 52(6),* 545-548.