Florida's Quality Improvement Initiative: Mother's Own Milk (MOM)

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Partnering to Improve Health Care Quality for Mothers and Babies
Background and Significance

- Human milk is the optimal source of nutrition for babies, especially those under 1,500 grams at birth.
- The AAP (2012) recommends an exclusive human milk diet for premature infants.
  - Mother’s own milk (MOM) is the 1st choice
  - Use of pasteurized donor milk (PDM) is recommended if MOM is not available.
Florida vs Vermont Oxford Network (VON) from 2009 to 2013

Any Human Milk at Discharge

% infants receiving human milk at discharge

2009 2010 2011 2012 2013

VON Median

FL Median

Partnering to Improve Health Care Quality for Mothers and Babies
FPQC MOM Initiative Aim

To apply evidence-based interventions to increase the use of MOM in VLBWs

Goal:

❖ Within 2 years of project start, greater than 50% of very low birth weight infants admitted to the NICU will receive greater than or equal to 50% of mothers own milk (MOM) at discharge

http://health.usf.edu/publichealth/chiles/fpqc/mom
**Mother’s Own Milk (MOM) Initiative**

**Project Aim**

Within 2 years of project start, ≥50% of VLBW infants admitted to the NICU receive ≥50% MOM at initial disposition

**Primary Drivers**

**Intent**

Mother intends to provide MOM

**Establishing Supply**

MOM pumped volume ≥500 ml/day at 7, 14, & 28

**Maintaining Supply**

≥50% of feeding volume comprised of MOM at day 7, 14, 28 & initial disposition

**Transition to Breast**

Nutritive breastfeeding session within 7 days of initial disposition

**Secondary Drivers**

Documentation of informed decision to provide MOM

Hospital grade pump available at maternal discharge

Lactation assessment by 24 hours of admit to NICU

First pumping by infant’s 6th hour of life

MOM available by HOL 72

Non-nutritive breastfeeding documented

Skin to Skin by day of life 10

**Recommended Key Practices**

1. Process to provide maternal education and advocate for mother’s own milk
2. Documentation of informed decision to provide mother’s own milk
3. Standardized process for lactation consultations, and assessment by 24 hours of NICU admission
4. Determination of who is responsible and continuously available to initiate and assist with ongoing pumping
5. Secure sufficient number of pumps and ensure access in-house and at discharge
6. Provide breastfeeding education and measure competencies for all staff
7. Maternal education on hand expression, hands-on pumping, colostrum collection, etc.
8. Ensure appropriate supplies are available to facilitate breastfeeding and provision of breast milk
9. Process to monitor milk supply
10. Standardized guidelines (for skin-to-skin, test weights, non-nutritive breastfeeding, etc.)

Note: Excludes where MOM is contraindicated.
MOM Project

Project Aim

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Primary Drivers

Intent

Mother intends to provide MOM

Establishing Supply

MOM pumped volume ≥500 ml/day at 7, 14, 28

Maintaining Supply

≥50% of feeding volume comprised of MOM at 7, 14, 28, initial disposition

Transitioning to Breast

Nutritive breastfeeding session within 7 days of discharge
25 MOM Initiative Hospitals

Launched Spring 2016
Continues until Spring 2018
Timeline

- **Hospital Recruitment**: March – April 2016
- **Collect and Submit Baseline Data**: May – June 2016
- **Hospital Kick-Offs**: July 2016
- **Mid-Project Meeting**: March 2017
- **Initiative Completion**: May 2018
- **Learning Session Webinars**
  - **Ongoing Data Collection**
  - **Technical Assistance Upon Request**
  - **June 2016 – May 2018**
1. Prenatal Advocacy and Education on MOM

- All mothers with high risk pregnancies receive prenatal education on the importance of MOM
MOM Education Tool

- Used prenatally or after delivery of NICU infant
- Focused on MOM for VLBW
- Can be customized by hospitals & available in Spanish
- [http://health.usf.edu/publichealth/chiles/fpqc/~/media/46E206F23F794A459CD1C15F675357DB.ashx](http://health.usf.edu/publichealth/chiles/fpqc/~/media/46E206F23F794A459CD1C15F675357DB.ashx)

Colostrum and Breast Milk is the best medicine for your baby!

- If you are interested in feeding your baby at the breast, we are here to help you.
- We encourage you to pump to provide your own milk even if you don’t plan to feed your baby at your breast.
- Learning to pump takes practice

![Seven Steps to Successfully Providing Mom’s Own Milk in the NICU](image)

Pump Early, Pump Often

- The best time to begin pumping is ASAP and within the first 6 hours of birth.
- We recommend pumping every 2-3 hours while awake with a goal of at least 8 pumping sessions per day, with at least one pumping session at night.
- Hand expression after pumping can help remove and collect colostrum for your baby.
- Remember Learning to Pump takes Practice!
Educational Materials (8 languages)

Breast Milk is Best for Premature Babies

Babies born very early usually need to stay in the neonatal intensive care unit. Breast milk is the best kind of food for premature babies because:
- It contains all the nutrients your baby needs.
- It helps your baby grow and develop.
- It protects your baby from infections.
- It provides a feeling of comfort and security for your baby.

How do I make breast milk if my baby is not strong enough to suck on my breasts?
- While your baby is in the hospital you will need to use a breast pump to collect the milk your baby needs. When you first start pumping, you need to pump at least every 2-3 hours, day and night. After 2-3 days, you can decrease the frequency to every 3-4 hours, day and night. You should pump for at least 15 minutes on each breast.
- You can use a breast pump at your hospital or in your home.
- If you feel that your baby will not breastfeed, you can use a bottle instead.

Making Breast Milk When Your Baby is Premature

Breast milk is the only thing you can give your baby. It is always the best thing to give your baby.

Skin-to-Skin Care for Your Premature Baby

Babies born very early usually need to stay in the neonatal intensive care unit. You can stay close to your baby by doing skintoskin care. Holding your baby is important and healthy for your baby and you.

Breastfeeding Your Premature Baby in the Hospital and at Home

Babies born very early need to stay in the neonatal intensive care unit. While she is there, she will learn to breastfeed, and they will continue to learn even after they go home.

How can I start breastfeeding when I leave the hospital?
- You can start breastfeeding when you leave the hospital. Your baby will be breastfed, and it will happen regularly. Your baby will do it again and again. Your baby will be able to breastfeed even if it is the first time.
- You will not be able to breastfeed right away. During breastfeeding, when you start breastfeeding, your baby may not be hungry.

More about skin-to-skin care:
- Skin-to-skin care is when your baby is in contact with you, face to face. This helps your baby feel more secure.
- Extra reassurance:
  - When you are baby sleeps, your baby will be next to you. This helps your baby feel more secure.
  - When you are baby sleeps, your baby will be next to you. This helps your baby feel more secure.

For more information:
- Visit the website for Breastfeeding your baby for more information.
- Visit the website for Breastfeeding your baby for more information.

http://health.usf.edu/publichealth/chiles/fpqc/momresources
2. Documentation of Informed Decision to Provide MOM

Mothers receive counseling on the benefits of MOM to allow for a fully informed feeding decision, and maternal feeding intent should be documented.

Lactation assessment for mothers of VLBW infants within 24 hours of NICU admission.

1. Review pumping frequency or technique
   (i.e., 8-12 times per day with 1 session at night)

2. Assess breast comfort while pumping
   (i.e., flange size, vacuum level)

3. Review use of the pumping log

4. Develop a plan for a hospital grade electric pump at or after maternal discharge
   (i.e., WIC referral, loaner pump, rental information).
4. Person responsible and continuously available to initiate and assist with ongoing pumping

First pumping within the infant’s 6\textsuperscript{th} hour of life and Assistance with ongoing pumping
5. Secure sufficient number of pumps and ensure in-house access and at discharge

- Hospital grade pumps should be made easily accessible in areas such as labor & delivery, postpartum units, and NICUs
- Mothers need access to a hospital grade pump after maternal hospital discharge.
7. Maternal Education in NICU

- Early Initiation of Pumping
- Hand expression and Colostrum collection
- Engorgement
- Hands-on pumping
- Pumping and breast milk management
8. Ensure appropriate breastfeeding supplies

Success of the mother in producing milk and breastfeeding in the NICU is dependent on availability of equipment and supplies to support establishment of milk supply and breast milk management.
9. Process to monitor milk supply

A process to assist mothers and NICU staff in monitoring milk supply
Milk Lab Monitoring Milk Supply

MOM #7 DOL = 82 ml
MOM #14 DOL = 525 ml
MOM #28 DOL = 556 ml
Visual Aids

- Education of NICU Staff on expected milk yields by developing cards for at bedside for DOL 7, 14, and 28.
- Common dialogue between RNs and Parents

- Laminated Crib Cards so mother is prepared for the developmental steps and cue based feeding progression
10. Standardized Guidelines

Standardized guidelines to support use of MOM and promote breastfeeding in the NICU for VLBW infants

- Management and Feeding of breast milk
- Oral care
- Skin to skin
- Non-nutritive breastfeeding
- Nipple shields
- Transition to nutritive breastfeeding / test weight
- Infant discharge feeding and appropriate follow-up
Kangaroo-a-Thon:
Celebrating the Power of Parents
Closeness & Touch

June 6th ~15th

Kickoff event:
Tues: May 27th
2-4pm
Fri: May 30th
8-11pm
Lg conf room

Help parents to provide meaningful/healing touch as often as possible. Prize baskets for families and staff!

Come and learn about specifics of kangaroo-a-thon and how you can win a prize basket while having a light snack and refreshment!!

Partnering to Improve Health Care Quality for Mothers and Babies
Fig 1. Intention to Provide MOM out of all eligible VLBW infants

<table>
<thead>
<tr>
<th>Period</th>
<th>% of Infants</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>(n=25)</td>
</tr>
<tr>
<td>Q3 -2016</td>
<td>(n=24)</td>
</tr>
<tr>
<td>Q4 -2016</td>
<td>(n=23)</td>
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<tr>
<td>Q1-2017</td>
<td>(n=24)</td>
</tr>
<tr>
<td>Q2-2017</td>
<td>(n=24)</td>
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<tr>
<td>Q3-2017</td>
<td>(n=20)</td>
</tr>
<tr>
<td>Q4-2017</td>
<td>(n=22)</td>
</tr>
</tbody>
</table>

Goal Line: 
Denominator: All eligible VLBW infants
Fig 2. MOM pumped volume ≥500 ml/day on DOL 14

Goal Line: Only infants whose mother intended to provide MOM

Denominator: Only infants whose mother intended to provide MOM
Fig 3. % of infants having ≥50% of feeding volume comprised of MOM on DOL 14

Goal Line: 
Denominator: Only infants whose mother intended to provide MOM
Fig 7. Non-nutritive BF session documented

Goal Line:
Denominator: Only infants whose mother intended to provide MOM
Fig 6. Nutritive BF session at within 7 days of infant’s initial disposition

Goal Line:  
Denominator: Only infants whose mother intended to provide MOM
Fig 5. % of all VLBW infants having ≥50% of feeding volume comprised of MOM on Initial Disposition

Goal Line: 
Denominator: All VLBW infants
<table>
<thead>
<tr>
<th>Average NICU Census</th>
<th>DOL 14 ≥ 50% MOM</th>
<th>Nutritive BF</th>
<th>All VLBW ≥ 50% MOM Initial Disp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-100</td>
<td>68%</td>
<td>24%</td>
<td>28%</td>
</tr>
<tr>
<td>41-70</td>
<td>63%</td>
<td>34%</td>
<td>40%</td>
</tr>
<tr>
<td>21-40</td>
<td>76%</td>
<td>32%</td>
<td>39%</td>
</tr>
<tr>
<td>&lt;20</td>
<td>92%</td>
<td>40%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Next Steps……

- Sustainability survey completed
  - 22 out of 25 MOM NICUs responses
  - Phase to start June 2018
  - Continue to maintain progress and work on improvements 😊

- Explore the racial & ethnic disparities in providing MOM
  - Disparities persist in use of MOM and access to PDM in NICUs (Boundy et al., 2017).
QUESTIONS?
For more information, visit our project website:
http://health.usf.edu/publichealth/chiles fpqc/mom

www.fpqc.org

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