Addressing the Critical Need for an **Exclusive Human Milk Diet for Premature Infants**

A Clinical Proceedings White Paper

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NATIONAL COALITION for Infant Health

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About the National Coalition for Infant Health

The National Coalition for Infant Health is a collaborative of professional, clinical, community and family support organizations. The coalition focuses on education and advocacy promoting patient-centered care for all infants – whether born preterm or full term – and their families.

About Clinical Proceedings

The coalition's Clinical Proceedings educate and raise awareness about issues impacting infants and their families. The coalition recognizes the expert panel members who contributed to the development of this white paper and acknowledges the professional writing assistance of Amy Sullivan, PhD, with Obrizus Communications.

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Introduction

Premature infants are those born before 37 weeks of gestation. Such prematurity is correlated with lower birthweight and increasing risks of morbidity and mortality as gestational age decreases. As such, preterm birth/low birth weight was the second leading cause of infant death in 2022, accounting for ~14% of deaths before 1 year of age.[1,2] Providing appropriate nutrition in the Neonatal Intensive Care Unit (NICU) is vital for the growth and development of premature infants, specifically to promote lung, brain and bone development. Infants that do not grow well have higher risks of developing chronic lung disease, neurodevelopmental delays and metabolic bone disease. Avoiding such conditions is complicated by the immature gastrointestinal system of the preterm infant, which results in difficulty tolerating enteral feedings and an increased predisposition to developing an intestinal disease called necrotizing enterocolitis (NEC). However, research has shown that an exclusive human milk diet (EHMD) consisting of mother's own milk, human donor milk and human milk-based fortifier improves tolerance to enteral feedings, decreases the risk of developing NEC and decreases the number of central line days. Despite such findings, an EHMD is not always used due to systemic constraints, such as a lack of standardized feeding protocols, gaps in insurance coverage, higher costs and limited knowledge of its benefits. However, educating care teams, families, hospital staff, policymakers and the lay population on the benefits and value of an EHMD, as well as changing reimbursement policies, should improve access and outcomes for this vulnerable population.

Not All Premature Infants are Created Equal

In the United States, approximately 10% of infants are premature,[2] equating to just over 380,000 infants per year.[3] Of these, just under 49,000 (1.36% of all births)[4,5] are born with a very low birth weight (less than 1500 grams), putting them at greater risk of morbidity and mortality. The actual cause of preterm delivery is often unknown, although higher rates of premature birth have been associated with certain demographic factors (e.g., age, socioeconomic status), medical history/conditions (e.g., prior preterm birth, carrying multiples, preeclampsia) and behavioral characteristics (e.g., drug or alcohol use).[2,6] Preterm births also disproportionately affect Black women, since their rates are about 50% higher (14.6%) than White (9.4%) and Hispanic women (10.1%).[2] However, due to race being a social construct, studies have consistently found that racial disparities in preterm birth rates are not due to biological differences between races.[2]

> "Both weight and age contribute to the risk factors a premature infant faces. For example, the developmental challenges of a 500-gram baby born at 24 weeks will be different from the challenges faced by a 500-gram baby born at 28 weeks."
>
> **– Kate Tauber, MD, MA**

Premature infants can be classified into different groups based on their gestational age and/or their weight at birth.[6,7]

Gestational age:

- Moderate to late preterm: 32 to 37 weeks
- Very preterm: 28 to less than 32 weeks
- Extremely preterm: less than 28 weeks

Birth weight:

- Low birth weight (LBW): less than 2500 grams (~5.5 pounds)
- Very low birth weight (VLBW): less than 1500 grams (~3.3 pounds)
- Extremely low birth weight (ELBW): less than 1000 grams (~2.2 pounds)

Extremely and very preterm infants haven't experienced all the rapid organ growth and maturation that normally occurs in utero during the third trimester of pregnancy (after 28 weeks of gestation). Thus, it is essential that these infants are given all the nutrients needed to continue their growth and development outside the womb. Providing such nutrition can be complicated due to an underdeveloped gastrointestinal (GI) system, lack of the ability to suck and/or swallow and difficulties coordinating feeding and breathing, which may make it impossible for these infants to receive the critical nutrients they need through breast or bottle feeding. Therefore, premature infants may be provided nutrients in a variety of ways to meet their needs.

- **Parenteral nutrition (PN)**

  PN is a solution that is formulated by healthcare providers (doctors, neonatal nurse practitioners, physician assistants, registered dietitians and pharmacists) to supply infants with the carbohydrates, proteins, fats, vitamins, minerals and fluids that they need to grow and develop. PN is best given to premature infants intravenously through a dedicated central line; however, this route does increase the risk of central line-associated bloodstream infections (CLABSI). The decision to give PN depends on the size, gestational age and clinical status of the infant. Typically, infants that are born before 32 weeks of gestation and/or weighing less than 1500 grams will start with PN on the first day of life. Older preterm infants will be given PN if it is clinically warranted. As the infant develops and can tolerate more enteral nutrition, the use of PN is tapered off until it is no longer needed.[8]

- **Enteral nutrition**

  Enteral nutrition refers to nutrients and fluids that are given either by mouth (swallowed) or through a feeding tube that goes into the baby's stomach. Ideally, enteral nutrition is provided in the form of the mother's own milk (MOM); however, if MOM is unavailable or additional nutrients are required, then donor human milk and/or fortifiers may be used.[9] The standard of care for enteral feeding of a premature infant is to start at a designated volume of milk/fortifier and then incrementally increase the volume and number of calories provided until specific amounts, as determined by NICU guidelines, are reached. The size and gestational age of the infant helps determine how and when enteral feeds are started as well as how they are advanced (volumes and calories increased) in order to minimize the risk of feeding intolerance and NEC. As feeds are advanced, any remaining nutrients and fluids that aren't given by mouth/feeding tube are provided by PN until the infant has reached full feeds.

> "Most premature babies won't be able to suck, swallow and breathe for feeding until 34 to 35 weeks of gestation, so, up until that time, human milk-based nutrition must be given through a nasogastric tube."
>
> **- Dan Stewart, MD**

Full feeds

When a VLBW infant has reached full feeds, it means that its feeding volume goal has been met. This means that the infant is receiving all the nutrition required to meet most of its needs by mouth or feeding tube, without any supplemental parenteral nutrition. As tolerated, multivitamins and iron are also added to the diet in order to meet micronutrient requirements. Oral feedings (breast or bottle feeding) are not initiated until the infant is ready, which is usually somewhere between 32 and 35 weeks of gestational age.

Oral immune therapy

In many hospitals, oral immune therapy (OIT), or oral care, is performed until the baby is able to transition to breast or bottle feeding. For OIT, either a sterile swab or a syringe is used to gently coat the inside of the baby's mouth with colostrum/MOM. This milk is rich in factors that promote immune system and GI development and help the baby establish a healthy gut microbiome.[10]

"We use oral care with the mother's breast milk, particularly colostrum, to enhance the microbiome of the baby. Studies have shown that this practice decreases the time it takes to get to full feeds."

– Dan Stewart, MD

While PN is critical for the treatment of premature infants, it cannot provide the nutrients that they need in the long term. This is because long-term use of PN can lead to other complications, including parenteral nutrition-associated liver disease (PNALD) and osteopenia of prematurity. In addition, the method of delivery of PN (through a central line) is associated with an increased chance of infection.[8] Therefore, the goal is to transition premature infants to full enteral feeds as soon as possible and limit the amount of time they spend on PN.

What is an Exclusive Human Milk Diet?

Exclusive Human Milk Diet (EHMD)

An exclusive human milk diet consists of:

- Mother's own milk (MOM)
- Donor human milk
- Human milk-based fortifiers

The American Association of Pediatrics recommends that preterm infants exclusively receive human milk, preferably MOM. If MOM is unavailable, then donor human milk should be used.[9] Furthermore, because MOM and donor human milk do not have the energy and protein required to meet the growth and development demands of the VLBW infant, human milk with fortification is the standard of care.[11] When premature infants are given either MOM or donor milk (or a combination of both) along with a human milk-based fortifier, they are said to be on an exclusive human milk diet (EHMD). Such a diet is optimal for premature infants because their immature digestive systems can have problems processing proteins from cow's milk (also called bovine milk). Such difficulty usually persists until around 34 weeks of gestational age.

Mother's own milk (MOM)

MOM is the milk that is produced by the mother of the baby. Importantly, MOM changes over time to meet the baby's needs. For the first few days after giving birth, colostrum is the type of milk that is produced. Colostrum is rich in nutrients and bioactive factors that help promote the baby's development, particularly the immune system and the GI tract.[12,13] Over the next few weeks, the milk transitions to mature milk, which has less protein and more carbohydrates and fat than colostrum.[14] For those premature infants who are initially unable to breastfeed, their mothers must pump to collect milk for feedings and promote continued milk production.

> "Mother's own milk is gold because it's adaptive to the unique needs of the baby."
>
> **- Carlie Austin, BSN, RN**

Donor human milk

Donor human milk is milk that is donated by mothers to be used by infants that aren't their own. Donors are first screened by providing a health history and blood for testing to make sure that they are healthy and eligible to donate milk. Once the milk is donated, it is pooled with milk from other donors and then pasteurized to kill any bacterial or viral contaminants. The milk is then tested to make sure that the pasteurization process worked before it is frozen and stored until needed. Unfortunately, due to the pasteurization and freezing processes, donor human milk has a lower nutrition content and fewer active components (e.g., antibodies) than MOM.[12,15,16] When donor milk is collected and distributed by a milk bank, the exact composition of the final milk product is unknown and can vary from batch to batch.[15] However, commercial distributors of donor milk complete extra testing to determine the nutrient composition (calories, protein and fat) of each batch, which is then adjusted so that each batch has similar amounts of each of these nutrients.

> "I would advocate for using mother's own milk 100% of the time, but, unfortunately, we do have mothers that aren't able to produce enough or are on medications that are contraindicated to breastfeeding, so we need to have human milk products available for those situations."
>
> **– Kate Tauber, MD, MA**

It is important to note that donor human milk from a milk bank or company is not the same as milk acquired from informal human milk sharing (milk given directly to the mother by another mother). When human milk is directly shared, it is not screened, pasteurized, or tested, so there are increased risks of harmful contaminants. Because of these risks, milk sharing is discouraged.[15–17]

Human milk-based fortifiers

When a VLBW infant needs more nutrition than MOM or donor milk can provide, human milk fortifiers will be prescribed. Human milk fortifiers are commercially available products (in liquid or powder form) that can be added to human milk to provide the extra nutrients that a premature infant needs to develop and grow. Human milk fortifiers can be made from either donor human milk (human milk-based fortifier and human cream fortifier) or cow's milk (cow's milk-based fortifier); however, importantly, human milk-based fortifiers are associated with fewer complications and better outcomes.[18,19]

> "An important reason to use human milk-based fortifiers is that preterm babies have difficulty managing fluids and thus need to have their fluids restricted. Commercial products allow us to concentrate the milk with more nutrients in a small volume."
>
> **– Jenny Fox, MD, MPH**

Human milk-based fortifiers

There are a variety of commercial human milk-based fortifiers available to meet the needs of VLBW infants. Standard human milk-based fortifiers are made by concentrating human donor milk and enriching it with vitamins and minerals. Such fortifiers provide the nutrients VLBW infants need to grow and develop in small volumes that their body can handle. However, some VLBW infants may need more calories than standard human milk-based fortifiers can provide. For these infants, in addition to a human-milk based fortifier, they will also be prescribed a fortifier made with human cream (the high-fat layer of the milk), which has a higher fat content to provide extra calories in a small volume.

What are the Benefits of an Exclusive Human Milk Diet?

An exclusive human milk diet is highly beneficial for VLBW infants. Accordingly, it has been associated with reduced risks of the following comorbidities:

Necrotizing enterocolitis (NEC)

Necrotizing enterocolitis (NEC) is one of the leading causes of death in VLBW infants.[20] In the United States, almost one baby per day dies of NEC, with the mortality rate ranging from 10–50%.[12,21] NEC is caused by inflammation in the GI tract that results in the death of intestinal tissue. It can appear suddenly and progress quickly, with little to no warning.[12]

While the exact cause of NEC is uncertain, a number of factors have been suggested to be associated with an increased risk of developing NEC, such as not being fed human milk, low birth weight, being born premature and an imbalance of microorganisms in the gut (intestinal dysbiosis).[22,23] However, many studies have shown that feeding VLBW infants an EHMD can reduce the incidence of NEC, particularly NEC that requires surgery,[24–33] and reduce their rates of mortality.[28,31,34]

> "At our institution, before we used human milk exclusively in infants that were less than 1,250 grams, our instance of NEC was somewhere around 8 to 10%. When we switched to using only mother's milk or donor milk with human milk-based fortifiers until around 34 weeks of gestational age, we decreased the incidence of NEC to around 2%. It was a dramatic decrease."
>
> **- Dan Stewart, MD**

Bronchopulmonary dysplasia (BPD)

Because the lungs of VLBW infants are not fully developed at birth, they are more susceptible to developing bronchopulmonary dysplasia (BPD). Infants with BPD have trouble breathing and need breathing support and oxygen.[35] Interestingly, several studies found that feeding VLBW infants an EHMD led to fewer cases of BPD,[28,36] particularly when there was early use of human milk-based fortifiers.[37]

Retinopathy of prematurity (ROP)

Retinopathy of prematurity (ROP) primarily affects infants who are born prematurely and/or are very low weight at birth. ROP is caused by the abnormal growth of blood vessels in the retina (a layer of cells in the eye that converts light to nerve signals). While infants with mild cases of ROP may recover healthy vision, those with more severe cases often need surgery and may have vision loss or blindness.[38] Similar to NEC and BPD, lower incidences of ROP have been observed in VLBW infants fed an EHMD compared to those fed a diet containing a cow's milk-based fortifier.[28,39]

Late onset sepsis

Late onset sepsis (LOS) is an infection involving the blood stream that occurs 3 to 28 days after birth.[40] LOS is a significant cause of morbidity and mortality in preterm infants,[41] with VLBW infants accounting for up to 50% of cases.[42] Because breast milk, particularly MOM, has positive effects on the immune system and decreases the need for a central line and PN, studies have shown that feeding VLBW infants an EHMD can significantly decrease the incidence of LOS.[28,34,36,39,43]

Neurodevelopmental deficits

Premature infants are more likely to have neurodevelopmental impairments, leading to problems with behavior and mental health (e.g., autism spectrum disorder, attention deficit hyperactivity disorder, anxiety, depression), motor and sensory issues (e.g., deafness, cerebral palsy), developmental delays (e.g., impaired language and cognition) and poorer academic performance.[44,45] Such impairments are related to gestational age, with those infants born the earliest having the highest rates of impairment.[44,45] Furthermore, common comorbidities of VLBW infants, including NEC, BPD and ROP, have been associated with neurodevelopmental deficits in both the short and long term.[46–50]

Nutrition is thought to play a key role in decreasing neurodevelopmental morbidity associated with preterm birth. Breast milk contains critical nutrients and growth factors that are essential for proper brain development.[51] Accordingly, multiple studies have observed that more consumption of breast milk, including being on an EHMD, in preterm infants results in better neurodevelopmental outcomes, even up to 11 years of age.[51–57]

> "There are all sorts of benefits of a human milk diet that we don't necessarily see in the hospital at the time these babies are born. There are benefits to brain growth and development that are important for overall function and help these kids develop into productive citizens."
>
> **– Kate Tauber, MD, MA**

Metabolic dysfunction

Many VLBW infants need a period of "catch-up growth" to get to an age-appropriate size. However, rapid catch-up growth has been associated with the development of metabolic disorders, such as metabolic syndrome or diabetes and obesity, later in life.[58] To avoid such conditions, proper nutrition is of utmost importance. In a study of VLBW infants that were small for their gestational age, being fed an EHMD was found to result in greater catch-up growth without increased risks of insulin resistance or fat deposition.[59]

*** In addition to decreasing the chances of experiencing comorbidities, the use of an EHMD can also shorten the time it takes to hit key care milestones.

Less time to reach full feeds

Due to gut immaturity or other comorbidities, PN may be started for a VLBW infant in the first few hours of life and used as a bridge to provide nutrients until the baby can tolerate getting all its nutrition from enteral feeds. However, PN can be hard on the liver and, due to the need for a central line, is associated with increased chances of infection. Therefore, PN should be tapered off while enteral feeds are incrementally increased to reach full feeds as soon as possible.[8] Studies have shown that there is less feeding intolerance and fewer days of PN when VLBW infants are on an EHMD compared to a diet containing cow's milk-based products.[26–28,60,61]

Earlier hospital discharge

As detailed above, premature infants fed an EHMD experience fewer/less severe comorbidities, stop PN earlier and reach full feeds sooner. Accordingly, multiple studies have found that VLBW infants fed an EHMD stay in the hospital fewer days, on average, than similar infants not fed an EHMD.[26,30,62]

Barriers to Accessing an Exclusive Human Milk Diet

Despite the many benefits of an EHMD for premature infants, the reality is that not all infants who need it have access. This lack of access can be due to a variety of factors.

Cost

Although MOM is the preferred choice for feeding premature infants, it is often unavailable or there is an insufficient supply for it to be the sole source of enteral nutrition. Therefore, donor human milk is needed as a replacement/supplement. While it is thought that there is enough donor human milk to meet the current demand,[12] it is expensive.[9,63] Part of the high price comes from the screening, processing and testing required to ensure the safety of the milk. Commercially-sourced donor milk and human milk-based fortifiers also undergo additional testing to determine the nutrient content of each batch, further driving up costs.

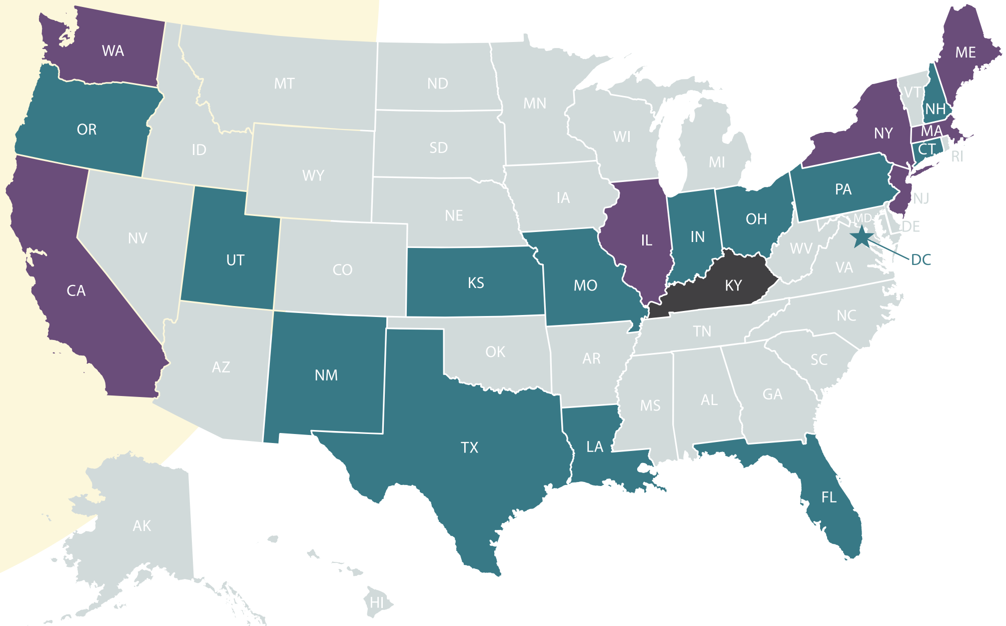
> "Some hospitals can spend over a million dollars a year on donor milk and donor milk fortifier."
>
> **– Dan Stewart, MD**

> "Access to donor milk banks depends more on your location, but commercial human milk-based products can be shipped anywhere. So, in terms of access, every hospital can have access to human milk, it's just whether or not they want to pay for it."
>
> **– Kate Tauber, MD, MA**

Variability in donor human milk coverage by private and government-backed (Medicaid) insurers can also increase costs. Although a federal mandate for such coverage has been introduced in the House of Representatives (Supporting Premature Infant Nutrition Act of 2025; H.R. 4569, 119th Congress), it has not yet been put up for a vote.[64] Therefore, regulations regarding the degree of coverage of donor human milk and related products by insurance and which insurers are required to supply coverage are determined by individual states. As of this publication, only 22 states and the District of Columbia have passed legislation requiring coverage of donor human milk in some capacity (via Medicaid, private insurance, or both).[65–72]

States that mandate some insurance coverage of donor human milk[65]

- States requiring coverage by Medicaid only
- States requiring coverage by both private insurers and Medicaid
- States requiring coverage by private insurers only



Disparate access

Unfortunately, access to an EHMD for premature infants is not universal across the US. This lack of access disproportionately affects communities of color, with Black and Hispanic VLBW infants receiving less human milk than similar White infants.[73] The reasons for such disparities are multi-factorial. Safety-net hospitals (those with ≥75% Medicaid patients) and hospitals with a high proportion of Black or Hispanic patients are less likely to use donor human milk than non-safety-net hospitals.[74] Such differences cannot be fully explained by lack of donor milk supply or geography,[74] suggesting that access may instead be restricted at the hospital level, presumably due to cost. Mothers may also have their own health issues or may not have the support necessary, such as time off work, transportation, or sibling care, to continue to provide MOM for their infant's care.[73] Location can also affect EHMD access because smaller rural hospitals are less likely to have donor human milk available.[75] Furthermore, VLBW infants born in small, rural hospitals who are transferred to large, urban facilities may experience delayed introduction to human milk and less access to MOM due to the need for travel.

> "The cutoffs for utilization of human milk-based fortifier may change from one institution to another based on the NEC rate and other preterm morbidity risks versus the cost of human milk-based fortifier compared to the cost of cow's milk-based fortifier."
>
> **- Jenny Fox, MD, MPH**

> "Disparities in care are not solely the product of race, but the result of a complex interplay of systemic factors. Things like payer mix, ownership type and location of hospitals, along with other structural constraints influencing hospitals and care teams, shape the quality and consistency of services and resources patients receive. Equitable access to donor milk is of no exception."
>
> **- Carlie Austin, BSN, RN**

Lack of education

> "Because of the lack of timely parental education regarding the benefits of breast milk by the pediatric and obstetrical community, I don't think most parents understand the importance of an exclusive human milk diet for their infants, especially if they are born prematurely."

- Dan Stewart, MD

One reason that parents may lack education about an EHMD is because the topic comes up late in the pregnancy. This is particularly true when feeding options are discussed for the first time after the baby is born. At this point, both mother and baby may be dealing with health challenges and families may find it difficult to do research and make informed choices about feeding their baby.

Another problem is the lack of a country-wide consensus regarding the optimal nutrition for preterm infants.[76] Without a basic standard, the feeding protocols used for preterm infants can vary widely from hospital to hospital. Preterm infants also tend to have unique nutritional needs due to different combinations of health challenges. Such differences are not always obvious, making it difficult for parents and administrators to understand why one preterm infant needs to be fed differently than another.

> "I believe it is a large disservice to not have a federal baseline standard. Baseline standards provide an evidence-informed benchmark that healthcare systems and teams can build upon to meet the unique needs of their NICUs and the infants and families they serve."

- Carlie Austin, BSN, RN

There is also confusion surrounding human milk fortifier. Unfortunately, cow's milk-based fortifier and human milk-based fortifier are both labeled as "human milk fortifier;" therefore, parents may not even be aware that their baby could be consuming a cow's milk-based product. In fact, in a survey of 281 parents who had a baby in the NICU that received human milk fortifier, only 8.8% realized that it could be made from cow's milk. In the same study, out of the 379 healthcare providers surveyed, only 21.9% reported that they consistently inform parents of the source of the fortifier being used, which aligns with only 20.6% of parents reporting knowing the source of their child's fortifier.[77]

> "Fortifier terminology can be quite confusing, not just for families, but for many nurse clinicians as well. It is not uncommon for infants to receive cow's milk-based fortifiers, while their families are under the impression that they are receiving human milk. When families are met with opportunities to research the nuances and understand the difference, they can perceive that misinformation was intentionally provided to them. Realizing that their baby was not receiving exclusive human milk can make family members feel like they were misguided by their care team, adding to feelings of mistrust and apprehension."

- Carlie Austin, BSN, RN

Improving Access to an Exclusive Human Milk Diet

Education

One way to improve EHMD access for premature infants is to educate people on its use and benefits. Providing education to families has been shown to increase the number of mothers who intend to breastfeed and can reduce maternal anxiety.[15] Such education may include information on the benefits of MOM, the need for early and frequent milk expression, as well as guidance on pumping and proper milk handling/storage. It is also essential that this education occurs early in the pregnancy so that any questions can be answered by providers/lactation specialists and feeding decisions can be made by the family. This allows the care team to plan appropriately for feeding once the baby is born, particularly if the mother is unavailable due to her own care needs (such as needing to undergo surgery) or being located in a different hospital.

"We're trying to do a lot of prenatal education, getting consent for donor milk before delivery and talking about the need for pumping and providing a hospital grade pump to use at home for the first 2 weeks in order to provide as much support to mothers and their families as possible. Providing all that support can be helpful, but it's a struggle."

– Kate Tauber, MD, MA

"The conversation about breastfeeding has to start early. It is really hard to have the discussion after the baby is here and in the NICU. Sometimes moms are still fighting for their lives or they have to go back into surgery, so it could be days before we see them. Even after that, it is hard to think about what to do going forward when there is so much going on in the present."

– Jenny Fox, MD, MPH

As a primary source of health education for patients, care team members also need to be educated regarding the benefits of human milk, breastfeeding practices and the technical aspects of pumping and storing milk so that they can provide appropriate and consistent support to families. Such knowledge can improve patient attitudes towards breastfeeding and human milk as well as reinforce the family's education, resulting in increased use.[15]

"We've found that getting the OB clinics and lactation consultants involved in early discussions with mothers around breastfeeding, the benefits of human milk and how they plan to feed their baby after it is born has been helpful. Such intervention has really increased the numbers of mothers that are providing breast milk after their babies are born."

- Jenny Fox, MD, MPH

Education of hospital administrators on the benefits of an EHMD could also result in improved access since they control the adoption of hospital policies, such as infant feeding protocols. In particular, administrators should understand that although the costs of donor human milk and human milk-based fortifiers are higher than cow's milk-based products, an EHMD has been associated with both short- and long-term cost savings for VLBW infants that offset the higher up-front costs.[11,26,30,78–80] One study analyzing cost and complications data from multiple institutions determined that from $515,113 to $3,369,515 in annual costs were avoided after EHMD programs were implemented in their NICUs.[11] Such savings can be attributed to fewer comorbidities (particularly surgical NEC), fewer days in the hospital and the avoidance of comorbidity-associated neurodevelopmental and metabolic deficiencies.[11,12,26,30,31,36,39,43,51,79–81]

"NEC is one of the biggest complications for preterm infants. It can be hundreds of thousands of dollars to treat a baby with surgical NEC, so avoiding that complication could provide a huge cost savings."

- Kate Tauber, MD, MA

"An EHMD is more expensive when establishing feeds, but several studies have shown that its use actually saves money in the long run. However, convincing hospital administrators of the long-term economic advantage is difficult."

- Dan Stewart, MD

Informational Articles

AAP Policy Statement: Breastfeeding and the Use of Human Milk[17]

AAP: Promoting Human Milk and Breastfeeding for the Very Low Birth Weight Infant [15]

AAP: Importance of Human Milk to the VLBW Infant[82]

AAP: Donor Human Milk for the High-Risk Infant: Preparation, Safety and Usage Options in the United States[16]

Guidelines for Feeding Very Low Birth Weight Infants[83]

Exclusive Human Milk Diet: A Challenging Innovation in Neonatal Care[84]

National Association of Neonatal Therapists: Benefits of an Exclusive Human Milk Diet (EHMD) for Premature Infants[85]

Children's Hospital of Philadelphia: Very Low Birthweight[86]

MSD Manual: Preterm Infants[87]

CDC: Breastfeeding Frequently Asked Questions (FAQ)[88]

Providing insurance coverage

Another way to improve EHMD access is to implement policies that mandate insurance companies and Medicaid to cover human milk-based products (both donor milk and fortifier). Such coverage would establish or improve hospital reimbursement rates, thus decreasing costs for patients. Ideally, such a mandate would have the most effect if it was passed at the national level, but even increasing the number of states addressing EHMD coverage (see page 14) would be an improvement.

> "Having a federal baseline reimbursement policy for the EHMD, particularly for Medicaid, would help support hospital leaders to effectively and consistently respond to the needs of vulnerable and underserved infants, without the implications of cost or return on investment being a deciding factor. An EMHD should not be a privilege for some; every infant should have access to clinical excellence."

- Carlie Austin, BSN, RN

> "In terms of improving access to an EHMD, I think we need legislation to get reimbursement because I think cost is a huge barrier for a lot of hospitals. More hospitals would provide it if it was reimbursed."

- Kate Tauber, MD, MA

Conclusion

An EHMD, consisting of MOM, donor human milk and human milk-based fortifier, has been consistently associated with fewer complications, lower mortality rates and better long-term development in preterm infants. However, due to a lack of education, higher up-front costs and systemic barriers to access, universal provision of this diet has yet to be achieved. Therefore, steps should be taken to improve public awareness and support policy changes to ensure EHMD access to those that need it most.

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NATIONAL COALITION for Infant Health

The National Coalition for Infant Health is a collaborative of professional, clinical, community and family support organizations.

The coalition focuses on education and advocacy promoting patient-centered care for all infants—whether born preterm or full term—and their families.

infanthealth.org