HUMAN milk banking ASSOCIATION OF NORTH AMERICA

HMBANA Matters
Volume 5
January 2008

Human Milk Banking in Europe

By Gillian Weaver, BSc (Hon) Nutrition, SRD, Milk Bank Manager, Queen Charlotte's and Chelsea Hospital, London, Chair – United Kingdom Association for Milk Banking

Human milk banks which collect, store, process, screen and distribute donor breast milk have existed in Europe since the establishment of the first formal example which opened in 1909 in Vienna, Austria. This bank is also recognised as the first milk bank in the world although the milk bank which officially opened the following year in Boston in the USA was operating at the same time. It wasn't until the 1930's and 1940's that milk banks began to appear on a wider scale throughout Europe. Since that time the numbers have fluctuated according to the popularity of breastfeeding, the availability and promotion of different types of formula milk, financial influences and the emergence of the HIV infection. There are no published figures providing the numbers of milk banks in the countries of Europe, the extent of milk banking and the use of donor milk although milk banking activity is much better documented in some countries than others. A recent survey which included EU and non EU countries has made a start in mapping milk banking activity throughout Europe and this work is ongoing although funding has not yet been identified. The results of this initial survey provide some interesting results.

As might be expected, given the size of the continent, the diversity of climates from the North to the South and the lack of a common language, the milk banks of Europe provide a variety of approaches to the provision of donor breastmilk.

A number of European countries have a national association that provides guidelines, facilitates discussion of milk banking issues and acts as a central contact organization for the purposes of the country's ministry of health. These countries include France, Italy, Norway, Sweden, Slovakia, Switzerland and the United Kingdom. Spain, Germany, Finland, Greece, Bulgaria and the Czech Republic all have milk banks and a lead person had been previously identified who would act as the national coordinator for collaborative work. Questionnaires on the national situation (numbers of banks, contact details, overall statistics etc) were therefore sent to the most appropriate people in 12 countries and they were also asked to distribute a second questionnaire to all the known milk banks in that country. Replies were obtained from France, Germany, Sweden, Norway, Bulgaria, Switzerland, Greece, Slovakia and the UK. A similar survey had recently been carried out in Italy and it

continued on page 8

Sue Balmer, Past Chair & Gillian Weaver, Chair of the United Kingdom Association for Milk Banking at the UKAMB conference in Chester, England.

Tully Receives the First HMBANA Lifetime Achievement Award

By Frances Jones, RN, MSN, IBCLC

For the first time in the history of HMBANA, the Board awarded a HMBANA Lifetime Achievement Award to Mary Rose Tully for exemplary service to milk banking at the 2007 conference dinner. In 1985, Mary Rose was a founding member of HMBANA. She has served as Board secretary, vice president, president and past president. She was the editor of the HMBANA Guidelines for many years and is coauthor on the HMBANA Best Practice for Expressing, Storing and Handling Human Milk. Mary Rose has worked for HMBANA for over 22 years.

Mary Rose Tully displays the Lifetime Achievement Award presented to her by HMBANA for her many years of service on behalf of donor milk banking.

In the mid 1970s, Tully was asked by a NICU physician at Duke to help establish a milk bank and the Piedmont Milk Bank was incorporated as a non-profit bank. Tully was the Coordinator of Piedmont Milk Bank , a volunteer position, for almost ten years.

continued on page 7

From the President

By Frances Jones, RN, MSN, IBCLC

In September both Gretchen Flatau, the HMBANA treasurer and myself had the pleasure of attending the UKAMB (United Kingdom Association of Milk Banks) conference in Chester, England. The conference, held at the unique venue of the Chester Racetrack had speakers from Australia, Europe, North America and Britain and marked UKAMB's tenth anniversary. Congratulations to UKAMB!

The conference was very informative. Dr Peter McCormick a retired British physician spoke about "No Frills Milk Banking" in Cameroon. Since 2000, Peter has been working on establishing "small inexpensive sustainable low technology milk banks" in Cameroon hospitals. With technical assistance from UKAMB, Peter developed a system using the Ace individual pasteurizer to enable six hospitals to set up milk banks run by local staff.

In addition, information from a number of European countries was presented. In France which opened its first donor milk bank in 1947 and currently has 19 banks processing 70,000 litres each year, government regulations are in place. In Sweden there has been promising research done using a new piece of equipment on analysis of human milk. Further research is required to clarify sampling technique and needed fortification. One of the most exciting outcomes of this conference was the first meeting of the European Milk Banking Association (EMBA), held with representatives of six European countries. EMBA plans to develop European milk banking guidelines and will be surveying all European banks.

On November 8th and 9th, HMBANA held our second International Congress in Fort Worth, Texas at the Doral Tesoro Hotel & Golf Club. It was a wonderful two days of presentations on milk banking and breastfeeding with delegates from the Australia, Britain, Canada, Italy, New Zealand, Norway and the United States. There was a wide range of topics covered including why use donor milk, fortification of human milk, growth issues with preterm infants, milk composition and pasteurization, effect of high pressure pasteurization, optimal growth patterns, milk bank operations, ethics and many other topics. Of particular interest was the HMBANA banks presentation of case studies including a Chylothorax case, SMA Case, adult cancer patients as well as donor milk used in the NICU, used as hospital "house formula" and other common situations. Research on the common North America practice of tight bundling and swaddling and its negative effects as well as the Norwegian approach to donor milk banking (use of raw milk) rounded out the second day. The last presentation "Donor Milk Matters" emphasized the importance of informed choice and support and promotion of non-profit donor milk banking in a culture that values money and marketing. Best practice includes support for breastfeeding and donor milk banking!

Amy Manning Vickers, Clinical Coordinator, Mothers' Milk Bank of North Texas & on-site organizer for the HMBANA conference & Frances Jones, President HMBANA at the conference dinner.

For the HMBANA Board of Director's members the conference was followed by two days of meetings to review conference planning, accreditation & credentialing, marketing, publications, future newsletters, research, technology, budget and further milk bank development. The board endorsed the Innocenti Declaration and began preliminary planning for our next conference in 2010.

Check the IMBI (International Milk banking Initiative) web page at www.internationalmilkbank.org for details on milk banking conferences around the world. The next international milk banking conference will be held in Milan, Italy in 2008.

Erin & the Family "Shipping Company" – A Donor's Story

By Bu Erin Ciezki, A donor to the BC Women's Milk Bank

American HMBANA banks pay for all shipping of donor's milk. Unfortunately the Canadian bank in Vancouver BC does not have adequate funding to cover donor's shipping. Our wonderful donors are very creative in how they get their milk to us. This is one such donor's story!

I always dreamed of becoming a mother. In March 2007 I gave birth to my daughter Mya who was full term and weighted 6 lbs 7oz. I knew right away that I was going to breastfeed her so that we could develop that special bond that all moms talk about. Once out of the hospital I decided that I was going to also pump so that my husband, Greg, would also be able to have some bonding time with Mya. Unfortunately Mya never took to the bottle but we were told to continue trying that eventually she would take it. It wasn't until we had a freezer full of milk that we came to the realization that she wasn't going to take the bottle so I decided to toss all the extra milk out.

The Family "shipping company" – Dawn, baby Mya and Stephan

The next month a friend of mine had a baby and was devastated that she was unable to produce breast milk therefore shattering her dream of breastfeeding. It was at that point that I started to research the idea of donating milk. I had never heard of milk bank donations before, I just assumed it was probably out there. Sure enough after a few minutes of research I found tons of articles saying that human milk was not only good for new babies but some cancer patients also thrived on it after going through radiation treatments. It was at that point that I decided I was going to be a donor. I started pumping again immediately and luckily I was still able to produce enough milk to satisfy Mya and have plenty to send to the Milk Bank. I modified my pumping techniques in order to be able to get the most milk possible. I found that pumping was so much easier this time around because I knew that the milk was going to help families and save lives of hopefully hundreds of babies.

I contacted a few of the hospitals here in Edmonton, Alberta and was told that in the 80s there was a milk bank but it had shut down due to the AIDS scare but they were in the process of collecting money to start it up again. I then tried to locate a milk bank that was near and that is when I found the BC Women's Hospital (in the neighboring province of British Columbia). I quickly proceeded to call the BC Women's Hospital and was quickly on my way to becoming a donor. I got in contact with a fantastic nurse named Madeline who send all the required forms to my doctor so that I could be screened and get the process on the go. There were a few problems getting my blood work done but finally after about a month of waiting and re-doing tests I was an official donor. Madeline regretfully told me that due to lack of funding I was responsible for getting the milk from my house in St. Albert, Alberta to Vancouver, British Colombia. I then proceeded to get information about shipping the milk to the hospital as I am in a different province.

I spoke with many courier companies and was told that shipping human fluids was not allowed. I then decided that I was going to risk it and tell them it was baby food which was allowed and at that point I was told it would be around $60-$100 per shipment (about 100 ounces). Luckily I have a sister who lives in Vancouver so I decided that I would wait till she visited and then send it with her. I contacted West Jet to see what sort of rules they had with shipping milk with passengers and was told that as long as the milk was stored properly and was put in the cargo of the plane it was not a problem. My sister Dawn usually comes home every 2 months but as fate would have it she and my brother in-law had a trip booked every month from April till now. I had decided that I was going to set a goal of sending 1000 ounces of breast milk. My first shipment finally left my freezer in July of 2007 and then each month since. I have not only reached my goal of sending 1000 ounces I have surpassed it and I am still able to donate. Breastfeeding is an amazing feeling knowing my baby is getting everything she needs but knowing that someone else's baby is also thriving just puts it on a different level. I love the milk bank and I now know that when my next baby is born I will be starting the process all over again.

Donor Erin with baby Mya and husband Greg

Mothers' Milk Bank of Ohio: A Gift of Health, and Perhaps, Even Life

By Georgia Morrow, RN, IBCLC

"Where it is not possible for the biological mother to breastfeed," the World Health Organization/UNICEF Joint Resolution states, "the first alternative, if available, should be the use of human milk from other sources."

Human milk is the only source of complete nutrition and immunological protection for human babies and as such is the best feeding choice for all newborns with rare exceptions; appropriately fortified, it is without question the optimum nutrition for the preterm infant as well.

Jane Landis of the Ohio milk bank carefully prepares milk for pasteurizing.

Nutritional management of the low birth weight infant offers a particular challenge. Babies born early often face difficulties with intestinal absorption and are prone to infection. These risks are significantly reduced with human milk feedings: decreasing mortality and morbidity, shortening hospital stays, and cutting healthcare costs while insuring maximum physical and neurological development. While the baby's maternal milk is best, this is not always an option. The availability of human donor milk provides the highest attainable nutrition to those babies unable to receive their mothers' own milk.

Recognizing the risks of nonhuman milk feedings for all infants, but particularly in the preterm and ill infant population, Dr. Craig Anderson, Medical Director of Newborn Services at Grant Medical Center and I began to plan for the use of donor milk in our nurseries. A grant from the Ohio Lactation Consultant Association (OLCA) facilitated this process by funding our first shipment of donor milk from an established Human Milk Banking Association of North America (HMBANA) member bank. January 2003 marked the first feeding of human donor milk at our hospital and within days, we were sharing this first shipment with preterm infant patients of Dr. Carl Backes, Medical Director of Pediatrics and Newborn Services at Doctors Hospital, an osteopathic hospital in Columbus.

Inquiries from other hospitals soon followed, and the increasing need to share our donor milk shipments made it clear that Ohio would need a milk bank of its own. A start-up grant from The Columbus Foundation and donations from OLCA, the March of Dimes, and Medela allowed us to purchase the equipment necessary to become fully operational: collecting, pasteurizing and distributing human milk for individuals in need. This initiative rooted in the non-profit health system of Grant Medical Center has evolved into the Mothers' Milk Bank of Ohio.

Walk-in freezers at the Mothers' Milk Bank of Ohio provide ample storage for donated milk.

Mothers' Milk Bank of Ohio

Born: February 2005
Birthplace: Columbus, Ohio

Almost immediately after initiating the use of donor milk, interested breastfeeding mothers wanting to donate milk began to call. The compassion and concern shared by our donor mothers for those who receive their milk is overwhelming. Babies whose mothers are unable to produce enough milk receive critical nourishment, benefiting from the growth hormones, developmental enzymes, and immunological components unique to human milk. For women who have lost their babies, milk donation--a gift from both mother and baby—assists with the grieving process and allows them to give the gift of health and perhaps even life.

Once established, our fledgling milk bank quickly blossomed into a shared commitment among healthcare professionals throughout the state to protect, promote and support breastfeeding, influencing change in our regional healthcare system and incorporating human donor milk into the healthcare framework of preventive medicine and infant nutrition.

It is through the generosity of our donor mothers, volunteers, individuals, corporations, philanthropic foundations, and healthcare professionals that we are able to make human donor milk accessible to those in need. These acts of kindness have allowed the Mothers' Milk Bank to make a difference in the lives of many babies and their families and to send the message that nothing can protect and nourish an infant the way human milk can.

Reports from the Frontlines of the International Congress

The following are summaries of just a few of the sessions presented at the HMBANA conference "Human Milk for Human Infants: Evidence and Application" held November 8-9, 2007 in Fort Worth, Texas. Contributors to this article include Naomi Bar-Yam, Kim Updegrove, Marina Green, Frances Jones and Mary Rose Tully.

Infant Swaddling: A Benefit or a Barrier?

Presenter: Louise Dumas, RN, MSN, PhD

One of the highlights of the HMBANA conference was a presentation by Canadian researcher, Louise Dumas. From Quebec, Dumas splits her time between Ottawa, where she lives, and Sweden, where she is associated with a Russian-Swedish research team at the Karolinska Institutet in Stockholm.

In the first part of Dumas' talk, she presented findings from a research project in Russia looking at birth practices, particularly the Russian practice of tightly swaddling newborns and separation from mother. The results of this soon to be published study demonstrated numerous harmful effects on babies. Babies who were swaddled and separated from their mothers had more difficulty maintaining their temperature and did not breastfeed as well nor regain their weight as quickly as non separated, skin-to-skin babies. Mothers whose babies were separated and swaddled showed poorer signs of attachment than those who experienced skin-to-skin care and no bundling.

Lest the audience think that the Russian practices where quaint and old fashioned compared to North America, the second part of Dumas' presentation gave the results of her informal survey of practices in North America and Sweden. North American practice is much closer to those of Russia. Numerous hospitals surveyed in NA reported continuing practices both of bundling and separating babies from their mothers. Skin-to-skin care in practice tended to be brief episodes after birth following which babies continued to be bundled throughout the hospital stay. In contrast, some hospitals in Sweden do not even stock cots for babies – instead, babies bed-in with their mothers.

Dumas concluded that we should not be complacent with our out-dated and harmful practices – it is time to stop coming up with excuses for poor care, especially when the scientific evidence is so strong.

Ethics and Donor Milk Banking

Presenter: Miriam Labbok, MD, MPH, FACPM, IBCLC,
Director of the Center for Infant and Young Child Feeding and Care at UNC Chapel Hill

In her talk on Ethics and Donor Milk Banking, Miriam Labbok, explored several levels of ethical issues that affect donor human milk banking. First, she drew clear distinctions among breastfeeding, breast milk feeding, and human milk feeding. Breastfeeding is feeding a baby at the breast. Breast milk feeding, the best alternative to breastfeeding, is feeding mother's own freshly expressed milk to her baby. Banked donor milk is human milk, but not from the infant's own mother. It is human milk, but a different product/entity than breast milk. These distinctions are important in creating an ethical frame around use of banked human milk. Human milk banking is one of several initiatives that protect and support breastfeeding initiation, but breastfeeding must always remain the priority.

Labbok went on to review two UN documents, the Convention on the Rights of the Child (CRC) and the International Code of Marketing Breast-milk Substitutes, and posed the question, how might the CRC and the Code apply to donor milk banking? While banked donor milk is not a "breast milk substitute," neither is it breast milk/mother's own milk, it is human milk feeding. How should the donor milk banking community consider the impact of marketing and its interaction with consumers (and suppliers)? Must milk banks abide by the Code regulation not to advertise directly to consumers? To be viable, milk banks require some "marketing" or "education" in the medical and general communities. At what point does one cross the line to violating the Code or the spirit of the Code?

Labbok also touched on the complex ethics of for-profit and non-profit milk banks and whether mothers should be paid for their milk, as well as the ethics of allocating distribution of a scarce resource. As with any ethics discussion, more questions were raised than answered, but the questions help focus the policy and ethical discourse as donor milk banking becomes more known and accepted in the medical community and the community at large.

Who Uses Donor Milk?

Presenter: Nancy Wight, MD, FAAP, Neonatologist at Children's Hospital and Mary Birch Hospital for Women in San Diego

Nancy Wight's presentation outlined the important use of donor milk in the smallest of recipients – VLBW babies (those with a birth weight less that 1500gm.). The nutritional goal during the first 3 days is to provide trophic feeds to help the baby's gut. Thereafter when enteral feeds occur pasteurized donor milk is the ideal choice when mother's own milk is unavailable. For these special babies, mother's own or donor milk may require fortification.

Wight also outlined her survey revealing the reasons why pasteurized milk is not more freely prescribed. Her survey of neonatologists revealed their concerns based on limited knowledge about pasteurized donor milk: uncertainty about the logistics of obtaining milk, concern about the safety and infection control, social acceptance and legal issues, nutritional and efficacy. All of these issues she believes can be addressed with education. The use of pasteurized donor milk in the US and Europe for the NICU population has increased dramatically – especially at the facility where Dr. Wight works.

continued on page 6

Frequently Asked Questions

By Gretchen Flatau, MPA

I heard that one of the milk banks does DNA tests on the donor mothers and on the milk they send to the bank, do the HMBANA banks do DNA testing?

NO, we have seen no rationale for doing DNA testing. The only reason to do it is if you are concerned that the mom may send in milk that either isn't her own milk or isn't human milk. Since our donors are not compensated in any way and their milk is purely a donation from the heart we do not believe they would bring milk in that is not their own. Our long history of collecting milk donations from mothers gives no credence to the notion that they might supply us anything other than their own milk. There is the additional issue concerning protecting the medical privacy of the donor mother. We do not see a reason to compromise our donor's privacy by gather information on them that isn't necessary.

I understand it is possible to donate my milk to orphans in South Africa; can I do that through a HMBANA bank?

While we support development of milk banks in other countries, we do not think it makes sense or is practical to ship milk that distance. First, it is important for each country to develop self sufficiency, if you really want to help someone you teach them how to fish, as the saying goes. They are some wonderful examples in Africa of public health initiatives that have involved collecting milk from local women and pasteurizing it in inexpensive ways, we need to support and help expand these efforts. But also we need to remember how great the demand in North America is. Sick and fragile babies that need milk for their survival are all around us, the HMBANA milk banks do not have an over supply of donor milk. In fact we need more donors in the US and Canada to meet the need. We encourage mothers to donate their milk locally so that this precious resource is used in the most efficient and economical manner possible and to provide financial contributions to the orphanages in South Africa so that they can develop milk banking locally. One of the organizations we encourage you to support with financial contributions is iThemba Lethu, their website is www.ithembalethu.org.za.

Reports from the Frontlines of the HMBANA International Congress

continued from page 5

Presenter: Marina Green, RN, MSN, IBCLC, Clinical nurse educator/lactation consultant, BC Children's and Women's Hospital and Health Centre, Vancouver, BC.

Green's presentation, "An Everyday Miracle" focused on the ability of BC Women's & Children's Hospital to provide very small amounts of pasteurized donor milk to babies in the postpartum areas when milk is needed for close to term and term babies with medical indications for its use until mother's own milk is available. The provision of donor milk as the 'house formula' has been a key focus in the hospital's journey towards becoming a Baby-Friendly Hospital. Promotion of donor milk has been part of an effective strategy to promote the benefits of mother's own milk.

At BC Women's & Children's donor milk is also available for the more typical uses for in-patients and outpatients – children.

How Much is Enough?

Presenter: Audelio (Sonny) Rivera, MD

How much donor milk would be needed if all preterm or ill infants in the U.S. received human milk? Dr. Sonny Rivera, Director of St. David's Medical Center's NICU in Austin, TX, and President of the Mothers' Milk Bank at Austin, created a mathematical model for answering this question, and presented the results during the welcoming address of the second day of the 2007 HMBANA conference..

Inputs to the Model:

- 4,100,000 babies are born each year, according to the National Center for Health Statistics
- 60,000, or 1.45% of those born weigh less than 1,500 grams
- 51,000, or 84% of those born under 1,500 grams will survive
- 51,000, or 100% of those born under 1,500 grams and surviving will have better outcomes if fed human milk
- 50% of milk needed for these babies will be provided by their own mothers

Model Assumptions:

- Mean birth weight = 1,000 g
- Target weight = 2,000 g
- Average hospital weight and feeding prescription = 1.5 kg x 160 ml/kg/day = 240 ml/day
- Average weight gain = 15 g/kg/d or 22.5 g/day
- Time needed to grow to 2,000 g = 44 days

Model Conclusions:

- Milk consumed per baby = 240 ml x 44 days = 10,560 ml
- Donor human milk required per baby = 10,560 ml x .5 = 5,280 ml
- 5,280 x 51,000 babies = 269,280,000 ml, or 8,976,000 oz/year

These thought-provoking numbers seem to describe the current trend in donor milk banking in North America as more and more neonatal units are beginning to use donor human milk on a regular basis when mother's own is not available.

The next conference of HMBANA is scheduled for spring 2010, to celebrate 25 years of HMBANA and 100 years of donor milk banking in North America. Stay tuned for date and location.

From the Journals

Sisk PM, Lovelady CA, Dillard RG, Gruber KJ, O'Shea, TM. Early human milk feeding is associated with a lower risk of necrotizing enterocolitis in very low birth weight infants. J of Perinat 2007;27:428-33.

Prospective study of 202 VLBW infants seeking to analyze the association between proportion of human milk fed in first 14 days and protection against NEC. Human milk feedings were categorized as low human milk if less than 50% enteral feedings, or high human milk if greater than or equal to 50%. Enteral feeding containing at least 50% HM in the first 14 days of life was associated with a sixfold decrease in the odds of NEC.

Vohr BR, Poindexter BB, Dusick AM, McKinley LT, Higgins RD, Langer JC, Poole WK. Persistent beneficial effects of breast milk ingested in the neonatal intensive care unit on outcomes of extremely low birth weight infants at 30 months of age. Pediatrics. 120:4 October 2007; e953-959.

Follow-up study to previously reported study of 773 ELBW infants and the beneficial effects of breast milk ingestion on developmental outcomes at 18 months. Current study looked at same infants now 30 months of age. At 30 months of age, increased ingestion of breast milk was associated with higher Bayley Mental Developmental Index scores, higher Bayley behavior score percentiles for emotional regulation, and fewer rehospitalizations between discharge and 30 months. For every 10 mL/kg per day increase in breast milk, the Mental Developmental Index increased by .59 points, the Psychomotor Developmental Index by 0.56 points, and the total behavior percentile score by 0.99 points, and the risk of rehospitalization between discharge and 30 months decreased by 5%.

Tully Receives Lifetime Achievement Award

continued from page 1

During this time, she worked on a research study at Wake Med in North Carolina and became their first lactation consultant. Between 1993 to 2001, she was the Coordinator of the Lactation Services and Milk Bank at Wake Med.

From 2001 to 2007, Tully has been the Director of Lactation Services at Women's and Children's Hospitals UNC Healthcare, Chapel Hill; an Adjunct Associate professor School of Public Health, University of North Carolina and faculty in the Center for Infant and Young Child Feeding and Care at UNC.

Thank You, Mary Rose Tully for all your work to promote and support both breastfeeding and donor milk banking!

The HMBANA Board Plans for the Future

A Strategic Planning Retreat: Spring 2007

By Laraine Lockhart Borman, BA, IBCLC

The first HMBANA strategic planning meeting took place in the city of Indianapolis, Indiana on April 28 and 29 of 2007. The Board of Directors and Milk Bank staffs took part in a meeting to review mission and values, revisit our history and develop a five year plan. The group reiterated that the Human Milk Banking Association of North America exists to promote and support donor human milk banking. The ambitious plan includes improving the infrastructure, visibility and fiscal integrity of the organization, as well as establishing procedures to maintain the high quality of processing of human milk by continuous monitoring of the member milk banks, developing job descriptions and competencies, reviewing new techniques and additional services to enhance the usability of donor milk and developing an international network of donor human milk banks to share knowledge with policy makers to support self sustaining programs. Participants left the meeting with assignments and a blueprint for the future that includes expanding the influence of milk banking in North America to be able to help more babies in need.

HMBANA Board of Directors in April in Indianapolis for a strategic planning retreat.

2008 Guidelines Revisions – Freezer Temperature Change

Members of HMBANA Board of Directors voted to change existing guidelines for freezer temperatures at the 2007 annual meeting. The current guidelines, reported in both the Guidelines for the Establishment and Operation of a Donor Human Milk Bank, and the Best Practice for Expressing, Storing and Handling Human Milk in Hospitals, Homes, and Child Care Settings, aimed to keep the freezer temperature of freezers containing donor human milk within a tiny range around -20°C. Newer research reflects the need for human milk to be kept to an optimal maximum temperature to prevent duplication of viruses and bacteria, and supports the change to read: Freezer temperature should be maintained at a temperature no higher than -20°C, or -4°F. This change will appear in the 2008 Guidelines for the Establishment and Operation of a Donor Human Milk Bank.

HUMAN milk banking ASSOCIATION OF NORTH AMERICA

1500 Sunday Drive, Suite 102
Raleigh, NC 27607
(919) 861-4530
Attention: Emily Bartlett

PRSRT STD
US POSTAGE
PAID
PERMIT #1998
Raleigh, NC

Return Service Requested

Human Milk Banking in Europe

continued from page 1

was felt an additional questionnaire was unnecessary at this time.

The contact details for a total of 123 milk banks were obtained as a result of this survey. Additional banks are known to exist in Majorca (Spain), Czech Republic, Denmark and Belgium and new banks are being established in Spain. It is estimated that there are at least 135 milk banks currently operating throughout Europe. Countries with no known milk banks are Russia, Holland, Portugal, Slovenia and Estonia. This leaves a number of countries where the situation remains less clear.

The national coordinators were asked about the availability of accredited guidelines and these are in use in France, Italy, Norway, Slovakia, Sweden and the UK. There are statutory requirements for milk banks in France, Germany, Slovakia and Sweden however inspections, if they occur, appear to be locally arranged. There are no inspections of milk banks in France, Italy, Norway and the UK. Bulgarian milk banks are inspected annually.

In Europe, donor breast milk is mainly used to feed premature babies. Surgical, IUGR and cardiac infants were also mentioned. Several milk banks in Norway cited all infants until the mother produces her own if supplies were adequate, a French milk bank included burn patients (although whether this was independent of age was not made clear) and a Swedish bank named multi organ transplant recipients. Overall there was little common agreement on the clinical criteria for the use of donor milk within the banks of individual countries. This was typical for most of the responses throughout the questionnaire. Pasteurisation temperature and time was the main exception with 62.5 degrees Centigrade for 30 minutes being the accepted norm throughout most of Europe.

Donor screening varied although most milk banks and most countries perform tests at the time of donor recruitment and don't rely on previously obtained blood results. Throughout Europe, donors are screened for at least HIV and Hepatitis B and C with HTLV, Syphilis, TB and Hepatitis A also commonly mentioned. The milk banks of Norway and Germany routinely screen for CMV as raw donor milk is used in these countries. Toxoplasmosis, Chlamydia and Group B Strep were also mentioned by milk banks in Germany. Pre and post pasteurisation testing for bacteria is the norm but again there are differences within and between countries with Swedish banks being less likely to perform post pasteurisation testing. All the UK milk banks do both pre and post testing.

There are 17 established milk banks in the UK. These include one in Northern Ireland and one in Scotland. There are 8 in London and the South East of England demonstrating the inequitable service provision throughout the UK. In the UK most banks are locally funded by a hospital or NHS Trust. The exceptions are a milk bank in Chester which is almost exclusively funded by charitable donations and a regionally funded bank in Northern Ireland. In the UK neonatal units can obtain donor milk from an in-house milk bank or from the nearest milk bank if it supplies other hospitals. There is usually a charge of approximately £100 per litre plus transport costs (this is the equivalent of $5.86/ounce). A meeting held in Chester on the day before the UKAMB 10th Anniversary 'Making Every Drop Count' conference was attended by the lead representatives of the national associations of Sweden, Italy, France, Switzerland, Norway and the UK with additional representatives from Bulgaria. A decision was made to further pursue the surveying and mapping of milk banks in Europe and further contacts will be sought and questionnaires sent out in 2008. Tentative first steps were made towards the establishment of a European Milk Banking Association (EMBA) and plans confirmed for an international milk banking conference in Milan in October 2008. It is also hoped that the centenary of milk banking can be celebrated in 2009 in Vienna.