



KK Women's and
Children's Hospital
SingHealth



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Cares

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KKH and Temasek Foundation Cares launch Singapore's first Donor Human Milk Bank Programme

Singapore, 17 August 2017 – KK Women's and Children's Hospital (KKH) and Temasek Foundation Cares announced the launch of a three-year pilot for Singapore's first donor human milk bank programme. This programme aims to provide a ready supply of safe, pasteurised human breast milk, donated for premature and sick neonates of mothers who may be unable to provide adequate breast milk to support their babies' requirement.

Breast milk is the best form of nutrition for babies in the early days of their lives, containing all essential nutrients and qualities needed to optimise health and developmental outcomes. This programme hopes to benefit 900 babies by recruiting around 375 mothers who are willing to donate their excess supply of breast milk to benefit vulnerable premature and sick babies who are receiving neonatal care in KKH, Singapore General Hospital (SGH) and National University Hospital (NUH) over a three-year period. The programme aims to attract eligible mothers who are ready to come forward to help in a good cause by donating their excess supply of breast milk.

Funded by Temasek Foundation Cares, the programme was opened today by Mdm Halimah Yacob. Managed by KKH, the milk bank will collect, screen, process and store breast milk received from donors. The bank will follow strict international guidelines for donor screening, recruitment and education, laboratory testing, processing and storage of the pasteurised milk, before it is dispensed for use.

Mr Richard Magnus, Chairman, Temasek Foundation Cares, said, "We all know that the initial years of a child's life is critical to his growth. The child needs optimum nutrition during this period. The Temasek Foundation Cares Donor Human Milk Bank programme provides preterm neonates such access who would otherwise be deprived. This is our social responsibility. This programme forms part of a larger initiative to support the health and social development needs of vulnerable children."

Dr Chua Mei Chien, Director, Temasek Foundation Cares Donor Human Milk Bank Programme, and Head and Senior Consultant, Department of Neonatology, KKH, said, "Breast milk is the nutritional standard for infants in the first six months of life, and it contains white blood cells and antibodies that protect the baby against infections and improve their chances of survival. The fat globules in breast milk enable better brain development as well as development of vision. Some mothers, due to preterm or complicated deliveries, or other pre-existing conditions, are unable to meet the breast milk requirement for their babies. Providing safe, pasteurised breast milk from donors to these vulnerable babies allows them to benefit from this ideal source of nutrition while also significantly improving their chances of development and recovery."

Premature and sick newborn babies have immature and weak digestive systems, making them prone to feeding intolerance. The provision of safe, pasteurised donor breast milk is

aimed at reducing the risk of potential complications, while optimising their immunity, development and overall health.

An average of about 350 very low birth weight infants receive neonatal intensive care in Singapore's public hospitals each year. In KKH, up to 80 percent of sick neonates in the Neonatal Intensive Care Unit (NICU) and Special Care Nursery (SCN) have to receive formula milk meant for premature babies, either exclusively or partially, during their hospital stay, due to inadequate supply of breast milk from their own mothers.

During the pilot period, the Temasek Foundation Cares Donor Human Milk Bank Programme will adopt international guidelines and protocols by the United Kingdom National Institute of Health and Care and Human Milk Banking Association of North America. These guidelines are the most comprehensive, well recognised and widely practiced by established donor milk banks in leading developed countries.

The programme aims to recruit 375 donor mothers who are healthy and lead healthy lifestyles. Donors will be required to undergo a stringent donor screening process as well as education on the handling and storage of the breast milk prior to donation. Additional information on the criteria for potential donors and the process of donation can be found in Annex A and Annex B, respectively.

The beneficiaries of the programme will be Singapore Citizens or Permanent Residents born in KKH, Singapore General Hospital and National University Hospital (from the second year after the launch for the latter two hospitals) and whose mothers are unable to provide sufficient breast milk; these babies must also meet the following criteria for eligibility:

- born prematurely at less than 32 weeks of gestation,
- weighing 1,800 grammes or less at birth and
- at a high risk of, or diagnosed with necrotising enterocolitis¹.

Temasek Foundation Cares has committed a total of \$1.37 million over a three-year period to the Temasek Foundation Cares Donor Human Milk Programme.

For more information on the programme, mothers may visit www.kkh.com.sg/milkbank, email to milkbank@kkh.com.sg, or call 6394-1986.

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¹ Necrotising enterocolitis is a lethal gut condition where the intestines can become damaged due to tissue death, and can lead to severe illness and even death of the baby. It is primarily seen in premature infants.

About KK Women's and Children's Hospital

KK Women's and Children's Hospital (KKH) is a recognised leader and Singapore's largest tertiary referral centre for Obstetrics, Gynaecology, Paediatrics and Neonatology. Founded in 1858, the 830-bed academic medical institution leads in patient-centred management of high risk conditions in women and children. More than 500 specialists adopt a compassionate, multi-disciplinary and holistic approach to treatment, and harness medical innovations and technology to deliver the best medical care possible.

Accredited as an Academic Medical Centre, KKH is a major teaching hospital for all three medical schools in Singapore, Duke-NUS Medical School, Yong Loo Lin School of Medicine and Lee Kong Chian School of Medicine. The Hospital also runs the largest specialist training programme for Obstetrics and Gynaecology and Paediatrics in the country. Both programmes are accredited by the Accreditation Council for Graduate Medical Education International (ACGME-I), and are highly rated for the high quality of clinical teaching and the commitment to translational research.

For more information, please visit www.kkh.com.sg.

About Temasek Foundation Cares

Temasek Foundation Cares is a Temasek funded non-profit philanthropic organisation that aims to help improve the lives of underprivileged individuals, families and communities in Singapore; and to build the capability and capacity of all people in Singapore to be prepared for emergencies.

Set up in 2009 as an Institution of a Public Character, it works in partnership with various voluntary welfare organisations, non-profit organisations, government agencies, Ministries and other institutions to support programmes that contribute to the well-being, dignity, livelihood, and emergency preparedness of its beneficiaries.

For more information, please visit <http://www.temasekfoundation-cares.org.sg/>

Annex A: Criteria of Human Milk Donors

1) Donors must be healthy and not engage in high-risk behaviours

A woman would not be a suitable donor if she:

- Uses illegal drugs, tobacco products or smokes
- Consumes more than three cups of tea, coffee, cola or stimulant soft drinks per day
- Regularly has more than two ounces of alcohol per day
- Has received a blood transfusion or blood products in the last four months
- Have been declined as a blood donor for a medical reason (other than pregnancy or nursing)
- Has received an organ or tissue transplant in the last 12 months
- Has a positive blood test result for human immunodeficiency virus (HIV), hepatitis B or C, or syphilis or her sexual partner is at risk for HIV
- Has been in the United Kingdom for more than three months (between 1980-1996)
- Has been in Europe for more than five years (between 1980- present)
- Is on regular medications or herbal supplements
- Had ear or body piercing / a tattoo/ permanent body makeup/ accidental needle stick injury in the past 12 months

2) Donor must agree to blood testing and be free from infectious disease

The specific panel of blood tests required for donors include the following:

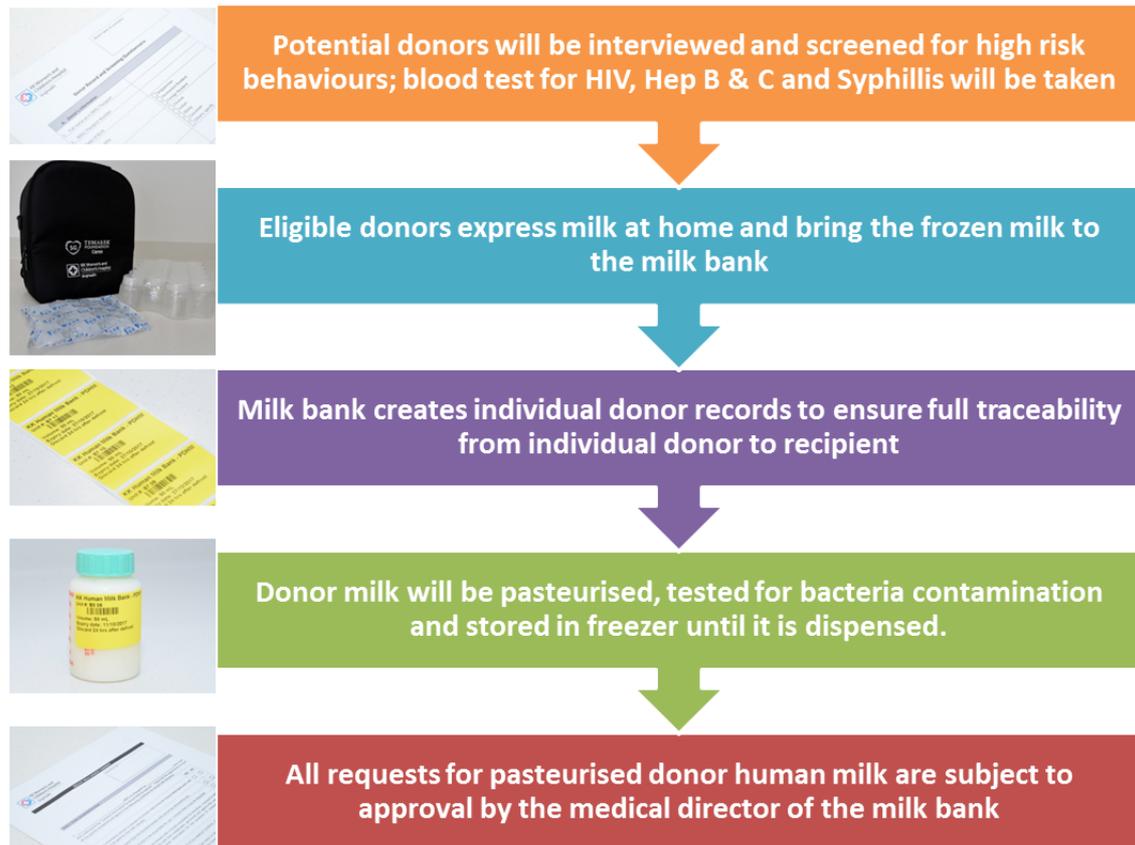
- HIV 1 and 2 antibody (anti-HIV 1 and anti-HIV 2)
- Hepatitis C antibody (anti-HCV)
- Hepatitis B surface antigen (HbsAg)
- Hepatitis B core antibody (anti-HBc)
- Syphilis antibody

The above tests meet the international recommendations for human milk banking and the minimum standards for serological testing recommended by the Australasian Tissue Banking Forum.

Annex B: Donor Human Milk Processes at KK Human Milk Bank

The KK Human Milk Bank adheres to strict guidelines and protocols set by the United Kingdom National Institute of Health and Care and Human Milk Banking Association of North America for screening donors, processing and dispensing the donated human milk. Just as for blood, donating milk through a milk bank ensures that it is safe, has been screened for any infections and has been handled and stored in the most appropriate way to protect its nutritional value.

Collection process of donor human milk



Pasteurisation and storage process

The donated human milk undergoes a process called pasteurisation to eliminate any bacteria in the milk while retaining its beneficial and essential components prior to it being dispensed from the bank.



Frozen Donor Milk

Donor milk arrives in acceptable condition. It is being stored and maintained in its frozen stage.



Thawing and Pooling

Once donor milk is selected for processing, the frozen milk is thawed and pooled under a sterile condition.



Pre-Pasteurisation

A pre-pasteurisation sample for bacteria culture is taken after pooling of the milk occurs.



Pasteurised Donor Human Milk

The pasteurised donor human milk is stored in the freezer until it is dispensed to individual recipient.



Post-Pasteurisation

Post-pasteurisation bacteriological cultures of milk are performed. Any human milk that does not meet acceptable bacteriological standards is not dispensed and will be disposed.



Pasteurisation

Pasteurisation of donor human milk is performed at 62.5° C for 30 minutes. Pasteurisation eliminates bacteria while retaining the majority of human milk's beneficial components.

