

Human Milk Banking

The New Zealand Breastfeeding Authority fully supports the establishment of Human milk banks in maternity services.

There is evidence that breastfeeding; hence the use of human milk is an important factor in the survival of children¹²³. Human milk contains immunologic factors^{4 5 6}, enzymes, vitamins, minerals which protect the infant from severe infections⁷, promote brain growth and the development of the nervous system⁸.

There is strong and consistent evidence that feeding mother's own milk to pre-term infants of any gestation is associated with a lower incidence of infections, necrotising enterocolitis, and improved neurodevelopmental outcome as compared with formula feeding. Long term beneficial effects have also been reported for pre-term infants⁹.

Available data indicate that feeding with donor human milk rather than standard pre-term infant formula to low-birth weight infants of less than 32 weeks gestation reduces the incidence of necrotising enterocolitis. Enteral feeds can be commenced earlier when human milk is available¹⁰. Growth is slower in the short term in the infants fed donor human milk, but there are insufficient data to assess the effects on long-term growth outcomes.

Breastfed infants were noted to have earlier age discharge (mean 2.7 days lower) than those not breastfed, partly explained by lower morbidity in the breastfed infants and the researchers recommend that supporting the establishment of successful breastfeeding in preterm infants should therefore be given high priority in neonatal care.¹¹

When the infant's mother can not supply her breast milk to her baby, milk from other mothers may be used as an alternative. WHO and UNICEF joint statement in 1979 indicated "*Where it is not possible for the biological mother to breastfeed, the first alternative, if available, should be the use of human breast milk from other sources. Human milk banks should be made available in appropriate situations*". The statement was endorsed by World Health Assembly 33.32 1980.

Milk banking includes pooling and storing breastmilk collected from different donors for future use. A human milk bank is a physical unit where collected human milk is screened, processed, stored and distributed upon the doctor's prescription for its use. Banking of donated breastmilk has been in existence for many years in developed countries and has been "prescribed" to aid in the treatment of many ailments in the neonatal period¹².

As a general principle, WHO's consistent position remains that the best substitute for babies denied their own mothers milk is milk from other mothers. This was re-stated most recently in paragraph 19 of the Global

Strategy for Infant and young Child Feeding, which the World Health Assembly endorsed in 2002.

“The vast majority of mothers can and should breastfeed, just as the vast majority of infants can and should be breastfed. Only under exceptional circumstances can a mother’s milk be considered unsuitable for her infant. For those few health situations where infants cannot, or should not, be breastfed, the choice of the best alternative – expressed breast milk from a healthy wet-nurse or a human-milk bank, or a breast milk substitute fed with a cup, which is a safer method than a feeding bottle and teat – depends on individual circumstances.”

Where human milk banks are concerned, WHO has never formally issued guidelines, although it is clear that legitimate operations are already applying a stringent protocol, which includes pasteurisation, to ensure the safety of donated milk.

¹ Hanson, LA et al: Breastfeeding is a Natural Contraceptive and Prevents Disease in Infants: Linking Infant Mortality and Birth Rates. Acta Paediatrica 1994; 83: 3 - 6

² Jones, G et al. How many child deaths can we prevent this year? Lancet 2003, 362: 65 - 71

³ Bhutta, ZA et al. What Works? Interventions for maternal and child undernutrition and survival. Lancet 2008; 2008: 371: 417 - 440

⁴ Heinig, MJ et al. Health Advantages of Breast Feeding for Infants: A Critical Review. Nutrition Research Reviews. 1996; 9:89 - 110

⁵ Slusser, W. Breastfeeding Update1: Immunology, Nutrition and Advocacy, Pediatrics in Review. 1997; 18(4)

⁶ Buescher, ES. Host Defences of Human Milk and Their Relations to Enteric Infections and Necrotising Enterocolitis. Clin Perinatal 1994; 21(2):247 - 62

⁷ Lucas, A., Cole TJ. Breastmilk and Necrotising Enterocolitis. Lancet 1990; 336: 1519 - 23

⁸ Uauy R, DeAndraca I. Human Milk and Breastfeeding for Optimal Mental Development. J Nutr 1995; 125: 22785 - 22805

⁹ Edmond K and Bahl R. Optimal Feeding of Low-birth Weight Infants: Technical Review. World Health Organization, Geneva 2006

¹⁰ Torres M I, Lopez C, Roman S V., et al. (2010) Does opening a milk bank in a neonatal unit change infant feeding practices? A before and after study. International Breastfeeding Journal, 5:4

¹¹ Altman M, Vanpee M, Cnattingius S et al (2009) Moderately preterm infants and determinants of length of hospital stay. Arch. Dis. Child. Fetal Neonatal Ed; 94: F414-F418

¹² American Academy of Pediatrics. Breastfeeding and the Use of Human Milk, Pediatrics 1997, 100: 1035 - 39