

## **The role of a contemporary milk bank in the NICU**

**Dr Nadia Raquel García Lara**

Department of Neonatology. 12 Octubre Hospital, Madrid, Spain

Leading organizations in Infants and Children Health state that when a mother's own milk is not available or is insufficient, donor human milk (DHM) is the best option to feed sick or preterm newborns. Recent research and systematic reviews have supported this conclusion (1-2).

In the short term, the use of DHM in Neonatology Units shows a decrease in the incidence of necrotizing enterocolitis and feeding intolerance. Necrotizing enterocolitis is a devastating illness, which carries a risk of mortality and serious morbidity. Feeding intolerance also has an important clinical impact since it extends the required time of the use of central catheter lines and increases the risk of nosocomial sepsis. In the long term, a cardiovascular protection has been proved (?) (3-8)

The preservation of major biological components of human milk such as oligosaccharides and polyunsaturated fatty acids after Holder pasteurization could prove other potential benefits of the use of DHM in Neonatology Units (9-10).

Considering the impact on the clinical practice of opening a human milk bank in a Neonatal Unit, in a study carried out by our group in 12 Octubre Hospital a quicker progression of enteral feedings and earlier withdrawal of parenteral nutrition was observed. A pattern in the reduction of the incidence of necrotizing enterocolitis was observed, although it was not significant. Also, we observed that the intake of the mother's own milk during the hospital stay and the rate of exclusive breastfeeding at the point of being discharged from hospital increased (11).

A higher rate of exclusive breastfeeding at discharge was observed also in Italian Neonatal Units (12).

From an economical point of view, even taking into consideration only the impact on the prevention of necrotizing enterocolitis, the use of donor milk in Neonatal Units Could make a significant saving (13-14).

The use of donor milk in Neonatal Units has important benefits. Firstly it improves the clinical course of preterm and ill newborns in the short and long term. Moreover, it promotes breastfeeding and is cost-effective.

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