

The Impact of Donor Breast Milk Use on the Neonatal Unit

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Introduction

In very low birth weight, preterm infants, receipt of human milk is associated with a reduced risk of necrotising enterocolitis. Early introduction of enteral feeds (EFs) is associated with a lower incidence of sepsis. In Cork University Maternity Hospital (CUMH), the aim is to start enteral feeds on day 1 of life (DOL1). Donor expressed breast milk (DEBM) has been in use in CUMH since December 2012. There is concern that using DEBM could negatively impact on receipt of maternally expressed breast milk (MEBM) by the infant. There has been no review of its impact on the neonatal unit to date.

Aims

To evaluate whether EFs are started on DOL1. To determine the impact of the introduction of DEBM on the age of first enteral feed and the time taken to reach full EF (150mg/kg/day). To elicit if the availability of DEBM has impacted on the use of MEBM.

Methods

Data was collected from the charts of infants born in CUMH <1500g birthweight and/or <32 weeks gestation between January and December 2014. After exclusion criteria were applied, a sample study of 55 infants remained. Outcomes were compared to that of a pre-DEBM group (Brennan et al., 2011).

Results

The results are summarised in *figure 1* and *tables 1 and 2*. A p value of <0.05 was deemed significant.

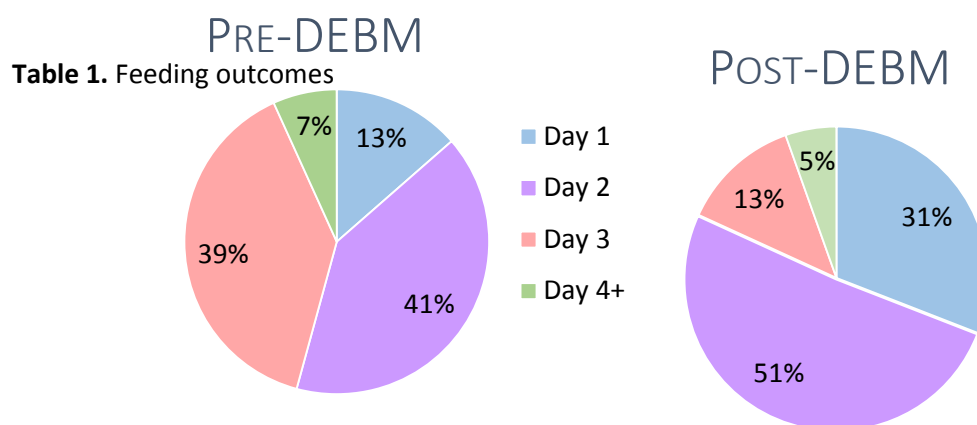


Figure 1. Distribution of age of first enteral feed in pre-DEBM vs post-DEBM groups

Variable (days)	Pre-DEBM (n=59)	Post-DEBM (n=55)	P value
Age first enteral feed ^a	2 (2-3)	2 (1-2)	0.002
Time to full feeds ^a	12 (10-16)	11 (8-14)	0.048
Duration of parenteral nutrition ^a	10 (8- 3)	9 (7-13)	0.323

^aMedian (IQR)

Table 2. MEBM usage in hospital following supplemental first enteral feed

Type of first feed	Received MEBM	Did not receive MEBM	P value
DEBM (n=10) n, %	8 (80)	2 (20)	0.00
Formula (n=4) n, %	1 (25)	3 (75)	

Conclusion

Since the introduction of DEBM, the number of infants receiving their first enteral feed on DOL 1 has increased. However, this is still considerably below target, at only 31%. Infants supplemented with DEBM rather than formula were significantly more likely to subsequently receive MEBM.