

THERAPEUTIC HYPOTHERMIA - A 24 HOUR CENTRALISED MODEL OF CARE

K. O'Reilly, J. Tooley, S. Winterbottom

NICU, St Michael's Hospital, Bristol, UK

Aims: Our neonatal network has provided a centralised service for therapeutic hypothermia (TH) since April 2008. The aim of this study was to evaluate the effectiveness of this service.

Methods: Data for all neonates referred for TH since April 2008 was retrospectively analysed.

Results: 92 referrals were received: 81 from our network and 11 from 3 other networks. No referral was refused. 46% of referrals occurred “out of hours” (20:00-08:00). 6 infants did not fulfil cooling criteria and 2 infants died prior to transfer. The remaining 84 infants were centralised within our network.

	Median (range)
Gestation (weeks)	40 (35-43)
Birth weight (g)	3238 (1900-5250)
Age at referral (mins)	114 (31-360)
Age when team arrived at referring unit (mins)	227 (96-534)
Temp when team arrived at referring unit (°C)	35.0 (30.8-38)
Stabilisation time (mins)	140 (45-355)
Time from initial call to target temp(33-34°C) (mins)	202 (0-365)

[Infants centralised for therapeutic hypothermia]

Following 72 hours of TH, 72 infants were discharged home or back to their local unit (median stay 9 days). Short term outcome indicators were: death 14%; severely abnormal MRI 23%; mildly abnormal MRI 24%; normal MRI 30%.

Conclusions: Centralisation of TH allows equity of access to expertise whilst ensuring target core temperature is achieved within an acceptable time frame. A successful centralised TH service relies on early referral of eligible infants and a 24hr neonatal transfer service.