Results A total of 30 infants were included in the survey; 22 of these infants were ≥32 weeks gestation at birth, and the other 8 infants were <32 weeks gestation. The results are shown in Table 1. A total of 372 days were saved with a cost saving around £167,400 (£450/scbu day). No family used additional support. No infant was readmitted due to poor growth or skin infection.

Conclusions

• Early discharge to home on NG feeds was safe and the infants gained weight appropriately. This saved a median of 8 bed days. The families required routine support from their close relatives and community team.

Abstract

WHAT IS THE EFFICACY OF NITRIC OXIDE IN NEONATES WITH PRETERM PROLONGED RUPTURE OF MEMBRANES?

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Background Preterm prolonged rupture of membranes continues to be associated with significant morbidity and mortality, predominantly as a result of respiratory failure due to pulmonary hypoplasia and/or pulmonary hypertension. Although iNO is not routinely indicated for treatment of respiratory failure in the preterm infant successful treatment with inhaled nitric oxide (iNO) has been reported in small studies.

Methods Retrospective review of neonates with PPROM of latency 14 days or more at gestation less than 34 weeks at birth from June 2008–July 2014. Infants with respiratory failure who were treated with nitric oxide were compared to those who had not received iNO, and timing of treatment was correlated with outcome.

Results 41 patients with PPROM (range 23+2–33+5 days) were included, of whom 61% (25/41) had respiratory failure with oxygenation index >20 (OI 53.5 (IQR 38–87). Respiratory failure was associated with ultrasound confirmed oligohydramnios (p = 0.01) and male gender (p = 0.03). 64% (16/25) of infants with respiratory failure were started on iNO. Within the iNO group all patients demonstrated significant reduction in OI following iNO; 81% responding within 1 h. The median OI prior to iNO 59 (IQR 47–88) vs after iNO administration 7.3 (IQR 4.7–10.8) (p < 0.01). Neonates were more likely to respond quickly to iNO if it was started early (<6 h, p = 0.047). This was a small cohort of infants and although infants receiving iNO had a higher OI this did not reach statistical significance. There was no difference in rate of bronchopulmonary dysplasia, intraventricular haemorrhage or mortality between patients who received iNO compared to those who did not.

Conclusion PPROM is associated with significant mortality (22%) and morbidity with 92% BPD and 29% IVH grade 3 or above. These babies show significant respiratory failure with