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Evaluation of the introduction of a postnatal ward liaison neonatal nurse

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Liaison neonatal nurse;
Cost-effective care;
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Cot days;
Mother—baby separation;
High dependency care

Abstract *Aim:* To describe the introduction, implementation and evaluation of the post of postnatal ward liaison neonatal nurse.
Method: In the Coombe Women and Infants University Hospital in Ireland there were 1075 short-term admissions to the Neonatal Centre in 2009, for observation, evaluation or antibiotic therapy, and the practice of separating mother and baby was identified as a factor in increasing maternal anxiety. The post of postnatal ward liaison neonatal nurse was introduced for a two-month pilot period to provide care for babies at the mother's bedside.
Findings: In the pilot phase the postnatal ward liaison neonatal nurse was involved in the care of 369 infants, reviewing each infant between 1 and 6 occasions. This resulted in a reduction of 66 cot days per year, saving €31,416, for a cost of approximately €7,815 in salaries.
Conclusion: The introduction of a postnatal ward liaison neonatal nurse is recommended as a means of providing safe, cost-effective and high quality care, while enabling more effective use of cots for infants requiring high dependency care.

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Introduction

Background

The first 6—12 h after birth are a critical time of physiologic adaptation for all new-born infants. Whilst this is a normal process completed by the majority of infants without any problems some may experience a delay due to inadequate respiratory, cardio-vascular or thermoregulatory transitioning. Maintaining the safety of the infant during the transition period is of upmost importance therefore nursing care on the delivery suite and postnatal ward during this period requires careful assessment to ensure that infants experiencing difficulties are recognised and treated appropriately (Askin, 2009). Often infants who experience a delay in normal transitioning or demonstrate symptoms of underlying disease or illness require admission to the Neonatal Centre (NNC) in the hours or days following birth. These admissions, sometimes only for a few hours, can be for observation, clinical investigations, administration of medications, or to initiate management plans for those at risk of developing hypothermia or hypoglycaemia. To prevent separation of mother and baby while providing appropriate and optimum neonatal care for these babies in the delivery suite and postnatal wards requires specialised knowledge and clinical expertise to support midwifery/nursing staff.

The demand for neonatal cots has increased and, as with many centres around Ireland and other countries (Parmanum et al., 2000; Gale et al., 2012; News.com.au, 2012; British Medical Association, 2013), this often outstrips availability. A report submitted to the Nuffield Council on Bioethics by the Royal College of Obstetricians and Gynaecologists described extremely premature babies as "bed blockers" who prevent other babies being admitted for the care they need (Iggulden, 2006). Whilst it is true that these babies do take up a tremendous amount of resources, one large maternity hospital in Dublin showed that 54% of admissions over a two-year period were of babies weighing 2.5 kg or greater (Rohininath et al., 2005). This study also highlighted that 16% of admissions of babies at 2.5 kg or greater were due to maternal or social reasons. It could be argued that this might not be the best use of intensive or special care facilities, and keeping mother and baby together might be more appropriate.

The Coombe Women and Infants University Hospital in Dublin, Ireland, found similar results, as babies less than 1.5 kg constituted 11% of admissions to the NNC in 2009 (Fitzpatrick, 2009). In analysis of the above data, a number of babies admitted to the NNC were found to require more treatment, or observation, than would usually be available in the postnatal ward, but did not need the full services of the NNC. The need to admit babies to the NNC on a short-term basis (defined as a period of less than 6 h) was also reviewed. In 2009 there were 1075 short-term admissions, and the practice of separating mother and baby was identified as a factor in increasing maternal anxiety.

Mother and baby are essentially an interdependent unit and research supports the fact that, unless a medical reason exists, healthy mothers and babies should not be separated after birth or during the early days following birth (Hubbard and Meeks, 2004). From a risk management perspective, a number of concerns related to the short-term admission of babies were identified. The risk associated with taking a baby away from its mother, performing procedures and administering medication in her absence, was noted. For example, medication error rates of 24 per 1000 neonatal activity days have been noted in one United Kingdom neonatal intensive care unit (Simpson et al., 2004).

The provision of transitional care in dedicated units has been implemented in many United Kingdom (UK) hospitals (De Rooy and Johns, 2010), with the Leicester Royal Infirmary recommending the provision of a postnatal ward liaison post following an audit of their neonatal services in 2006 (Hubbard, 2006). Caring for the baby alongside the mother has many advantages; it can assist infection prevention and control as overcrowding in NNC is associated with an increase in infection rates (Saiman, 2002). It is viewed positively by mothers (Erlandsson and Fagerberg, 2005) and promotes the developing mother/baby relationship (White, 2004). Similar schemes that encourage 24-h contact between mother and baby aid bonding and breastfeeding, develop maternal confidence (Wataker et al., 2012) and result in earlier discharge (Ortenstrand et al., 2010).

Importantly, the provision of transitional care in dedicated units reduces admission rates to the NNC, where cots may be required for infants with higher dependency levels born within the hospital or referred there for tertiary care. Neonatal units in large tertiary hospitals have difficulty in catering for requests to admit ill babies from secondary level or primary care units. For example, in the Coombe Women and Infants University Hospital in 2009, over a 2 month period, 12 requests for a tertiary bed, out of 15 (80%), had to be turned down due to lack of space.