

# Kindred spirits or the great divide?

Improvements in neonatal and paediatric intensive care in the last decade have substantially reduced mortality and morbidity in both patient populations. However there is an overlap as many babies within the first month of birth are cared for in both environments. Significantly, there is no uniform UK standard of practice dictating where, and by whom, such patients are cared for. Often arbitrary admission criteria are set for admission to PICU such as neonates > 2kg in weight, or > 36 weeks' gestation. Numerous contributing factors dictate these differences – historical background, specialist training for medical and nursing staff, regional hospital planning, relationships to other medical specialties.

Neonatal intensive care medicine has had a distinct voice since the 1960s and is well represented within the Royal College of Paediatrics and Child Health. In the 1970s, recognising their close links with obstetric medicine, a forward thinking group of neonatal paediatricians formed the British Association of Perinatal Medicine<sup>1</sup>. In contrast, paediatric intensive care medicine is a youngster. It was not until 1997 that recommendations on standards and organisation expected from hospitals delivering paediatric intensive care were detailed in the now seminal 'A Framework to the Future' document<sup>2</sup>. Since its publication, the number of centres delivering paediatric intensive care has reduced dramatically, and is confined to large mixed, or single centre hospitals capable of delivering tertiary paediatric care. This led to the evolution of specialist paediatric retrieval services, delivering paediatric intensive care in the shortest possible time to patients who required it, and continuing that intensive care on the move.

The inseparable relationship between neonatology and obstetric medicine dictates that in hospitals where obstetric services exist, neonatology services must be provided. Outside major centres, paediatricians often fulfil the neonatology role, as all three services are now likely to be co-located. However, within cities, NICUs may not be on the same site as paediatric tertiary services and after surgery neonates may return to PICU, where they are jointly monitored by paediatric intensivists and surgeons. Even if the NICU is colocated with surgical services, the neonate will often be cared for postoperatively in the PICU. This model has received positive endorsement as a standard of care following the Bristol and Winnipeg enquiries<sup>3,4</sup>.

There is a major difference in medical training between neonatal and paediatric intensive care medicine. Paediatric trainees need to spend time training in neonatology as many will become consultants in district hospitals with obstetric units and be expected to perform dual roles as paediatricians and neonatologists. In contrast, paediatric trainees are not required to spend time training in paediatric intensive care, even though the specialty encompasses the retrieval of critically ill children, recognition of the sick child, stabilisation of sick children and high dependency care. The medical background of consultants in paediatric intensive care medicine is from paediatrics and anaesthesia. There are also training differences for nurses in neonatal and paediatric intensive care. Neonatal nurses often come from a midwifery background, rather than being a Registered Sick Children's Nurse (RSCN). In paediatric intensive care, the nursing staff must hold the RSCN qualification, prior to starting intensive care training.

Although the evolution of neonatal and paediatric intensive care medicine has been very different, staff are united in the desire to provide good quality, evidence-based medical and nursing care to this vulnerable group of patients in a family centred environment. From a hospital planning perspective it is essential that within tertiary centres the NICU is not only in close proximity to obstetric services, but also paediatric intensive care and surgical services<sup>5</sup>. Close links between paediatric and neonatal intensive care are desirable, ideally in the form of joint ward rounds and teaching meetings, risk management, retrieval services, and audit and research. There is a lot to learn from each other. NICUs have considerable skill and expertise in making sure the needs of the mother are considered in addition to their obvious attention to the neonate. Many PICUs have substantial experience in caring for surgical neonates, and all will have considerable experience of caring for surgical infants, including all the postoperative symptoms (e.g. pain and fluid management) and complications. The future is exciting for both specialties as clinical outcomes for patients improve. In order for this to continue, we should strive to build on shared experiences and values to ensure that neonates are optimally cared for in both environments.

*Jillian McFadzean, Consultant in Paediatric Anaesthesia and Intensive Care, Royal Hospital for Sick Children, Edinburgh*

## References

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