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## Editorial

## Maintaining momentum



Having sprung into action in our April issue, with the summer approaching, we must prepare to maintain the momentum, carrying all our good intentions for the New Year with us into accomplishment. In this issue we examine infant feeding on the neonatal unit, revisit neonatal pain assessment and management, and explore our communication with parents.

We start this edition with a review article: Başdaş Öznur, Keklik Dilara and Kadiroğlu Türkan, a team of Turkish researchers, take us right back to basics in their review article entitled Enteral and Parenteral Feeding of the Neonate. In the late nineteenth century, Professor Pierre - Constant Budin, credited as the father of modern perinatal care, succeeded Etienne Stephane Tarnier as chief obstetrician at the Hôpital de la Charité in Paris (Dunne, 1995). Budin, having studied under Lister in Edinburgh, was a promoter of strict hygiene, advocating that cow's milk could contain contaminants, and that breast milk was best. With Tarnier he is recognised for producing the first incubator (a wooden box with a glass lid and a hot water bottle inside) and instigating the first gavage feeds through a rubber tube which could be boiled in order to sterilise it between feeds. Together with the midwife, Mrs Henry, they set up the first ever neonatal unit.

In spite of Budin demonstrating a 28% drop in the infant mortality rate over three years at that hospital, America and the rest of Europe were slow to accept his findings, with most hospitals refusing to entertain these innovative practices. Dr Martin Couney, who claimed to have studied under Budin, but whose medical credentials cannot be verified, exhibited premature babies, nursed in incubators like those used in the Hôpital de la Charité at fairs, in Paris, London and throughout America. He charged an entry fee to see the premature babies, using some of the money to finance their care. They were well cared for, and he is credited with saving the lives of thousands of babies. These exhibitions continued, notably on Coney Island, until neonatal units embracing these basic principles of keeping the baby warm and appropriately nourished, became established in mainstream hospitals – right up until the 1950s (Silverman, 1979).

In neonatal units, in spite of over a century of research and our professionalism and sophistication, we still depend on strict hygiene and that eternal triangle of thermoregulation, nutrition and oxygen control (Aylott, 2006a,b) to care for our babies. Öznur et al. remind us of the basics of infant nutrition, including the calorific and nutritional needs of the baby, and the ways in which we can feed them. This includes gavage feeding, something which we take for granted, but which is absolutely lifesaving for many of the babies in our care.

Our first piece of original research comes from Egypt. For babies born prematurely, their ability to co-ordinate breathing, sucking and swallowing does not develop until they are 32–34 weeks' gestation age with survival of babies born earlier that seldom possible before gavage feeding was introduced by Tarnier and Budin in the 1890s. The ability

of a baby to feed orally is often essential to the decision to allow them to be discharged home (Ahnfeldt et al., 2015), therefore affecting length of stay in hospital. Atait Osman, our first researcher and a PhD candidate, postulated that the ability to feed does not develop automatically at a specific corrected gestational age, and she used the Neonatal Oral Motor Assessment Scale (NOMAS) to assess readiness to feed. Babies who demonstrated a readiness to feed using that scale achieved full feeding in a statistically shorter time, and were discharged home earlier – again this was statistically significant. This particular piece of research could be criticised for only including babies who were learning to bottle feed – breastfed babies were excluded. Although we are continually seeing improvements in our breast feeding rates in neonatal units (RCPCH, 2018; O'Brian et al., 2018), the frustration of trying to breast feed a baby who is not yet willing or able to suck is well documented (Briere et al., 2014). Feeding readiness is important for all babies in our care. This is a clinically significant result which can be adapted to any baby on the neonatal unit and knowledge of tools such as NOMAS are extremely important to all neonatal nurses, particularly those who do not have access to speech and language therapists on a daily basis.

As our awareness of parental stress following the birth of a preterm baby increases (Shaw et al., 2014), and knowing that feeding these babies at home continues to be stressful (Reyna et al., 2006) it would be good to concentrate our resources on those babies who will present with the greatest feeding difficulties. Sarah Edney, a speech and language therapist, and her colleagues Stephanie Jones and Elizabeth Boaden, working, in the UK, attempt to identify which babies will have most trouble feeding at forty weeks corrected gestational age. They found that, rather than looking at gestational age at birth, looking at the babies medical history, specifically what impairments they have to various body systems, is a very good indication of which babies will have problems. Of course those with congenital anomalies are likely, for various reasons, and depending on the anomaly, to have problems – but for babies who were preterm, it is the morbidity that they encounter which is likely to add to their difficulties.

As we embrace family centred care (Read and Rattenbury, 2018) and family integrated care (O'Brien et al., 2018); Julia Petty, Joy Jarvis and Rebecca Thomas, also working in the UK, remind us to listen to the parent voice. They analysed data from interviews where parents were asked what neonatal nurses can learn from them: and identified 5 themes which include communication, listening, empathising and acknowledging the parents while realising what matters to parent. Family centred care is not a new concept, and the equality of the partnership between professional and family has long been questioned (Coyne and Cowley, 2007). I am interested to see that the title used here is person centredness. It is refreshing to see the parents recognised as persons in their own right as opposed to an accessory which comes with the baby

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and must be somehow included in the care. This is an innovative and thought provoking piece of work.

The theme of communication continues with Schofield, Palmer and Keeck, working in the UK but analysing data from parents of babies, or foetuses, diagnosed with fetal and neonatal alloimmune thrombocytopenia in the UK, Ireland USA and Canada. This is an extremely rare condition which occurs when paternal platelet antigens inherited by the foetus manage to cross the placenta, and the mother sets up antibodies which cross back across the placenta and attack the fetal platelet cells. This can cause abnormal bleeding in the foetus before and the neonate after birth, and gets more serious with subsequent pregnancies as more antibodies are produced. The rarity of the condition and relatively less serious disease in first babies means that this condition may not be diagnosed until later, sicker babies are born. Schofield and colleagues looked at the experience of parents facing a difficult diagnosis as there is lack of information on this condition in the public domain, with many healthcare professionals never having encountered a case before. The authors have built a model in which parents move from a lack of knowledge through a drive to understand and into coping and hopefully to overcoming the disease. The model is interesting and could be used to explain the journey which many families make from a new diagnosis of a rare disease to becoming an expert parent. When the parents are experts in the condition and care, the partnership between professional is more complex (Kirk and Glendinning, 2002). As so many of our parents on the neonatal unit have been through a journey which may be explained by Schofield and colleagues model (although it has not been tested), these are the parents who we want to listen to, those who need to tell us what is important to them.

Denise Lauderbaugh, Peggy Holub, Kirsten Turner and Toni Popien, American researchers, explore basic and extremely important care. In analysing their quality improvement they were able to show that adherence to local guidelines and carrying out good oral hygiene was instrumental in reducing ventilator associated pneumonia. It is heartwarming to see articles like this where neonatal nurses look at their own practice and try to improve it. It would be really nice to hear about more projects which improve the outcomes for neonates through good, basic nursing care.

Again I make no apology for the fact that our next two articles are on the subject of neonatal pain. Asma Tarjomana and colleagues, working in Iran, did a cross sectional study, finding that there was a very large deficit in the practice of neonatal nurses when assessing and controlling pain in neonatal patients. Carolina Lavin Venegas and her colleagues in Canada also found that nurses were poor at offering comfort measures which have been shown to reduce distress during painful procedures. It is interesting that they felt that breastfeeding and skin to skin contact were difficult to achieve ergonomically and practically. Because babies often have blood tests in a treatment room it was thought easier to give sucrose, but that team are working on ways in which they can improve their practice.

We have had many articles on the subject of pain relief over the past year and there seems to be a worldwide problem among neonatal nurses dealing with neonatal pain; it is either not important or “too much trouble” to provide consistent analgesia and/or comfort measures. In spite of great advances in our knowledge there seems to be slower improvement in our practice. It would be really nice to receive

accounts of quality improvement initiatives and examples of good practice as assessing and treating neonatal pain.

Our final article this issue comes from Giovanna Sorce and Jill Chamberlain and demonstrates how using simulation can improve the comfort and competence of nurses dealing with perinatal loss. This is a difficult subject, with simulation being used more often by educators trying to prepare students for emotionally difficult aspects of practice (Lewis et al., 2016). We look forward to seeing how this can be used in the future.

While writing this we are lucky enough to be looking forward to the COINN conference in Auckland at the beginning of May. Conferences always invigorate us, it is not simply the new knowledge we acquire, but the company of likeminded people and the passion for the care of neonates and their families which inspire. We hope that these articles will also inspire you to move neonatal care forward into a bright future.

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