

# Highlights from this issue

Martin Ward Platt, *Deputy Editor*

## Fallout from NEC

Among the tiniest and most fragile babies, necrotising enterocolitis is still one of the major causes of death and disability; while for attending clinicians, it is a deeply frustrating disease both to prevent and treat. The aspect that has had less attention is the potential for long term consequences, so the paper by Pike *et al* is a welcome addition to our knowledge. The problem with separating out the extent to which long term outcomes are a direct result of NEC itself, or a result only of the conditions that gave rise to NEC, has been addressed as well as it can be; and the results are a mixture of the reassuring (little effect on behaviour or educational problems) and the important (later gastrointestinal problems). *See page F318*

## Fallout from 'near-term' birth

After a quarter century of the close study of significantly pre-term babies, there has been more interest in the outcomes of babies born closer to term—from 32 to 36 weeks.<sup>1 2</sup> They are variously described as 'near-term' (my preferred language), or 'late pre-term' (33 to 36 weeks), as used by Berard *et al* in this issue. Rates of prematurity appear to have risen in Canada, from where the data on costs and morbidities was obtained, but the sample is large and unlikely to be wildly different from the rest of the developed world. Very roughly, 6% of all babies are born after 32 weeks but before 36 weeks, so the fact that these babies generate twice the costs, after primary discharge, compared to babies born at term, is not inconsequential. However the excess costs fell largely in the first two postnatal years. *See page F329*

## Head and body go head to head

We know that cooling is a worthwhile therapy for neonatal hypoxic-ischaemic encephalopathy in babies of 36 weeks or more, and whole body cooling has largely supplanted selective head cooling for a variety of reasons. But is selective head cooling any better or worse than whole body cooling? Sarkar *et al* have been able to use their service's participation in the selective head cooling trial, and their subsequent use of whole body cooling, to report a comparison that although not randomised, can shed some light on the relative efficacy of the two treatments. The end point was not developmental outcome but MRI lesions, and the important result was that there was a significantly higher proportion of MRI abnormalities in the selectively head cooled babies. Practical considerations, and reassuring safety data, have led many to prefer whole body cooling to selective head cooling, so it is unlikely that there will be a 'head-to-head' trial of the two techniques. Data such as this may be the closest we get to a rigorous comparison. *See page F335*

## Probing the puzzle of perinatal stroke

In this issue we carry two papers that relate to neonatal (and perinatal) stroke: Rutherford *et al*, with a detailed review article, and Dudink *et al* with a paper describing the secondary neuronal, or network, effects of the primary lesion. Amongst other useful points, Rutherford *et al* highlight the discordance between the lesion and the outcome, while Dudink *et al* help us to understand why this might be so. In short, it is not just individual variation in the degree of

cerebral plasticity that might determine the outcome, but also the secondary effects on parts of the brain to which affected neurons project, and the resilience or otherwise of these areas. Rutherford *et al* also make the point that cooling therapy might have something to offer babies whose stroke is diagnosed sufficiently early, but this will need careful trials to establish whether or not it is true. *See pages F377 and F362*

## How low can we let a platelet count go?

There is very little evidence to guide practice in relation to giving platelet transfusions to neonates who are severely thrombocytopenic, although there are trials proposed or underway to attempt to answer this question. To address the issue from an observational perspective, von Lindern *et al* report a natural experiment in which they were able to compare the outcomes of restrictive versus liberal platelet transfusion practices in two otherwise similar units in two cities (Leiden and Groningen), over two years. The outcome was the detection of intra-ventricular haemorrhage: there was no difference between the units. This does not mean that we don't need the rigorous trials; indeed it makes them more urgent since this work suggests that this plausible and widely practised treatment might be ineffective. *See page F348*

## REFERENCES

1. Quigley MA, Poulsen G, Boyle E, *et al*. Early term and late preterm birth are associated with poorer school performance at age 5 years: a cohort study. *Arch Dis Child Fetal Neonatal Ed* 2012;**97**:F167–73.
2. Escobar GJ, McCormick MC, Zupancic JAF, *et al*. Unstudied infants: outcomes of moderately premature infants in the neonatal intensive care unit. *Arch Dis Child Fetal Neonatal Ed* 2006;**91**:F238–44.