

Highlights from this issue

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SEVERE NEONATAL HYPERNATRAEMIA

When there is prolonged failure of lactation, babies always lose weight and sometimes become very hypernatraemic; their resilience in the face of such stress is extraordinary. Oddie *et al* used the British Paediatric Surveillance Unit methodology to identify cases of severe hypernatraemia (at least 160 mmol/L), almost all of which were secondary to lactational failure with significant weight loss. Although some had lost more than a quarter of their body weight, and some had truly eye-watering plasma sodium concentrations, all of these babies did very well. That they did not come to harm may well be due to the effectiveness of monitoring by the community midwifery and health visiting services in the UK, and the public health nurses in the Republic of Ireland. It seems to be safe simply to feed starved babies: though some of them were given intravenous fluids, probably most of them did not need this and the enteral route is generally safer and kinder. Readers may find the accompanying editorial by Moritz rather controversial, but so is another recently published paper by Flaherman *et al*.¹ See pages F384 and F378

HELPING BABIES GROW

One of the most striking changes of the past 20 years of neonatal care is that babies are now much less ill in their first few days, and when sick, are generally better more quickly. This means that good postnatal growth can often be achieved sooner than in the past, but this will only happen if we give sufficient nutrition. 'Sufficient' is not just about energy: rapidly growing premature babies need plenty of protein too. Cormack *et al* demonstrate that an appropriate protein intake is quite attainable if we put enough nitrogen into intravenous feeding fluid, and provide enough enteral protein by fortifying breast milk (or giving pre-term formula). Importantly, they have demonstrated in a before-and-after design that they could manage this through a simple, standardised approach, so anyone can do it, and probably everyone should. See page F399

POSTNATAL, PRE-DISCHARGE ACQUISITION OF CMV: DOES IT MATTER?

It certainly matters to the fetus if cytomegalovirus (CMV) is acquired in-utero. Whether it matters as much if premature babies acquire CMV postnatally through maternal breast milk remains controversial: clearly if a significant hazard were to be demonstrated, there are major implications for the testing and processing of breast milk prior to feeding babies with it. Goelz *et al* report a study of 40 such babies and compared 40 controls, with long term neurological and neuro-cognitive outcome at a minimum of 4 years old. Their results provide a hint that, independent of other factors, postnatally infected premature babies may have a small cognitive disadvantage compared with uninfected babies. But the effect was not strong and the possibility of confounding was significant, so larger studies with better power and more account for possible confounders are needed. It is reassuring that any major effect of CMV can probably be excluded. See page F430

THE CAR SEAT SAGA

For more than 20 years there has been concern about the safety of preterm babies in car seats, at least in the first few weeks after discharge. Many neonatal services carry out a 'car seat challenge' before sending babies home, with little consensus on what to do if the baby 'fails' the challenge. Set against this concern is the fact that babies are much safer in car seats than any other form of containment if they are unfortunate enough to be involved in a vehicle collision, so if there are also hazards specific to the use of car seats, these risks have to be balanced against each other. Using relatively simple polysomnography, Schutzman *et al* show that the car seat challenge is neither sensitive nor specific in identifying babies with continuing cardio-respiratory instability, which calls into question the wisdom of doing the challenge at all. See page F411

SATURATION, DESATURATION AND THE BRAIN

While much attention is directed to the outcomes of the big trials of different oxygen saturation target ranges, such as BOOST-II and SUPPORT, Schmid *et al* have examined the short term effects of higher and lower target ranges on cerebral desaturation events in preterm babies with each subject serving as their own control. Not surprisingly they found that there was more cerebral desaturation when babies were studied in the lower limit condition. They also found that the lower limits did not reduce episodes of excessive oxygenation. Studies like this will continue to be important because if, as seems likely, it emerges from the pooled randomised trial data that higher oxygen saturation targets are generally good for babies, we still need to understand the mechanisms. See page F392

IN ADC

There are two articles of potential interest to *F&N* readers in *ADC*. Talbot *et al* (Screening of selected risk factors in DDH: An observational study) call into question the current guidance on screening for developmental dysplasia of the hip in male babies. Sacker *et al* (Breastfeeding and intergenerational social mobility, what are the mechanisms?) have used the 1958 and 1970 birth cohorts to explore whether it is likely to be breastfeeding per se, or some other factor, that is responsible for the association between breastfeeding and a higher likelihood of upward social mobility, together with a decreased likelihood of downward mobility. Their data strongly suggest that it is indeed the breastfeeding that is responsible for this effect.

REFERENCE

- 1 Flaherman VJ, Aby J, Burgos AE, *et al*. Effect of early limited formula on duration and exclusivity of breastfeeding in at-risk infants: an RCT. *Pediatrics* 2013;131:1059–65.