

“Postcode lottery”?

In the NHS, access to a proven, effective treatment such as neonatal extracorporeal membrane oxygenation (ECMO) should (in theory) be equitable, especially when there is national provision of the treatment at four designated centres. Furthermore, when these centres are widely separated geographically, access should be reasonable wherever a baby happens to be born. Yet when Tiruvoipati *et al* examined referral patterns for ECMO they uncovered an extraordinary 4.5-fold difference in referral rates between government regions. Such variation is hard to explain on the basis of intrinsic differences between populations of babies, but until we know more about both the numbers of babies reaching the criteria for referral, and the decision making processes among their neonatologists, we will remain in the dark about how exactly this variation comes about, and what it means. **See page F104**

Group B streptococci in the Iberian peninsula

This month we have two complementary papers examining the epidemiology of group B streptococcal (GBS) infection. From Portugal, Neto reports on the burden of GBS disease, taking a wide perspective that includes both early and late onset disease, but using a tight definition of infection: culture proven from sterile sites.

From Spain, Carbonell-Estrany *et al* focus on early onset disease, confining themselves to infants ≤ 72 hours of age, and also examining the problem of those who were culture negative, but nevertheless probably had invasive GBS disease. It is therefore no surprise that the data look very different. One interesting fact from the Portuguese study was the 3-fold variation in carrier rates between different regions in the country: it would have been fascinating to know whether similar variations were to be found in Spain. **See pages F85 and F90**

Playing the long game

Long-term neurological outcome from birth events has the advantage of being the most accurate and relevant metric, but the disadvantage of being about cohorts of babies whose management may well have been significantly different to that of today's babies. That said, Odd *et al* have been able to answer a question that has perplexed many of us: what happens to babies who are significantly compromised at birth (in terms of Apgar scores), but never develop an encephalopathy? Such babies born in the early 1970s in Sweden turned out to have a bit less cognitive ability than their peers, but the effect was very small. So it's still permissible to say “He'll be fine”.

On the other hand, if you are a preterm baby with cerebral intraparenchymal echodensities and porencephaly, you

probably won't be fine. This is the conclusion of Sherlock *et al*, who report the long-term outcomes of 10 babies with such lesions, all of whom weighed < 1250 g at birth and were born in the early 1980s when what happened in NICU was very different to modern practice. One of the most important findings was that in these infants, cognitive function relative to peers appeared to worsen as childhood progressed, so that earlier assessment would have produced misleadingly optimistic results. The review of the pathogenesis of white matter damage by Khwaja and Volpe is a useful accompaniment to this paper.

See pages F115, F127 and F153

Unintended consequences

Manufacturers of incubators take great care to ensure that noise from the air circulation fan and its motor is minimised. As Karam *et al* show, this endeavour is undermined by the fact that all devices for the delivery of nasal continuous positive airways pressure generate substantial noise for the baby that can easily exceed occupational standards for adults. In our quest to minimise damage to the lungs, we may be inadvertently harming the inner ear. There is a clear need to do something about this, given the known effects of excess noise on babies as well as children and adults.

See page F132