Highlights from this issue

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INTRAVITREAL ANTI-VASCULAR ENDOTHELIAL GROWTH FACTOR FOR ROP

This highly informative review article by Darlow *et al* reviews the scientific background for the use of intravitreal anti-vascular endothelial growth factor for the treatment of retinopathy of prematurity and places the findings of the BEAT-ROP trial of Bevacizumab in the context of evolving knowledge in this subject area. Although the treatment results in impressive effects on the eyes, there is a great deal to learn. Because these agents enter the systemic circulation and suppress vascular endothelial growth factor (VEGF) levels systemically there is significant potential for adverse effects on other developing organs. Emerging evidence from the trials of different oxygen saturation target ranges is giving rise to renewed caution over the use of lower saturation targets to prevent ROP, so the condition is here to stay for the time being. The need to contain enthusiasm for a new approach until the later outcomes of treatment are known is a familiar dilemma for neonatologists. Anecdotal experience with Bevacizumab and other similar agents is increasing. Experience shows that observational data are a poor substitute for randomised controlled trials and it is crucial that larger trials are done before there is further change in practice. *See page F170*

BENCHMARKING

Three articles in this issue consider the measurement of outcomes and the use of data to improve care. The original research data are from Smith *et al* (*See page F103*). They gathered birth data and

all registered deaths for all Primary Care Trusts (PCTs) in England for 2005–2008. There were substantial differences in the reporting of preterm births <24 weeks of gestation as live births. The lowest 5% of PCTs reported 26.3% live births and the highest 5% reported live births of 79.5%. As gestation advanced the variation was still present but diminished rapidly. These differences accounted for similarly large variation in the proportion of infant deaths that were reported and excluding them might give rise to more meaningful comparisons of deaths in liveborn infants. In a linked editorial, Hummler (*See page F96*) considers the article in the context of other examples from the literature highlighting some key points for those interpreting data of this sort. Ideally pregnancy outcomes should be determined for pregnancies where there is a live fetus at 22 weeks gestation or more. In the absence of high quality data about the perinatal management of deliveries before 24 weeks, excluding them is an option but this would exclude around a third of all deaths from comparisons. Spencer and Modi (*See page F175*) describe the developments in the UK regarding collection, sharing and use of national collection of neonatal data to support specialist care and improve infant outcomes.

HAEMANGIOMAS AND β2 AGONISTS?

In light of evidence suggesting that treatment with β blockers is associated with reduction in size of infantile haemangiomas, Meyer *et al* hypothesised that β₂ agonist use for tocolysis might increase their occurrence in preterm infants. In a study of 328 preterm infants their

hypothesis was supported. The OR for development of infantile haemangioma after intrauterine exposure to hexoprenaline was 4.3 (95% CI 1.4 to 13.8). *See page F108*

HYPOTENSION

Treatments given to increase blood pressure generally do so. Just about everything else on the subject of appropriate measures of organ perfusion, indications for treatment and risks and benefits of treatments is up for grabs and is happily the subject of a lot of current research. Burchfield *et al* measured cerebral oxygenation with near infra-red spectroscopy in preterm infants <30 weeks' gestation who were treated for hypotension (mean blood pressure <30 mm Hg). Blood pressure increased and cerebral oxygenation (which did not appear reduced before treatment) stayed the same. Others have had similar findings. The brain may be the best perfused organ so measuring the brain alone may not give the optimal information for guiding clinical practice in terms of overall organ perfusion. *See page F117*

OSMOLITY OR OSMOLARITY?

Do you know the difference between the two?—nor did I, but I did after reading the informative article by Pearson *et al*. As well as explaining the science, they summarise the weakness of the evidence behind the commonly stated view that it is an important risk for the development of necrotising enterocolitis and show that it is likely to be of little relevance within the context of current milks and milk fortification practices. *See page F166*