

# Highlights from this issue

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## Fetal and neonatal growth

In this and future issues of *FNN* the page count has increased from 77 to 96. This will enable us to publish significantly more original research reports than before and is our response to the increasing volume of high quality submissions that we are receiving. As the volume and quality of our submissions grows further we will continue to increase the number of articles that we publish so please keep submitting them. Accepted articles are already published on line within a few weeks. The page increase will shorten the time from publication on-line to appearance in the print journal.

## Ventilators don't breathe

When people use the term 'self-ventilating' to describe a baby who is breathing I am reminded of the old lady with COPD in an episode of ER who was left, with fatal results, to bag ventilate herself via her tracheostomy during a power-cut in the intensive care unit. Babies don't self-ventilate. Now Colin Morley and Martin Keszler urge us to consider that ventilators don't breathe. Their serious point is that the literature is increasingly confusing because of the mis-use of a plethora of terms to describe what humans and ventilators do. They define a terminology for common usage that may help us to develop greater clarity. *See page F392*

## Sudden unexpected postnatal collapse

Earlier this year Becher *et al*<sup>1</sup> reported in *FNN* the findings of a UK prospective study of sudden unexpected postnatal collapse. Poets *et al* have previously reported a similar study of the condition that was undertaken in Germany. They now report a case-control study of the risk factors. This adds to the literature that prone positioning and primigravid status are important associations, raising

the possibility that acute deterioration may be preventable or modifiable with targeted vigilance in the immediate post partum period. A further national surveillance study in Australia is underway and a similar Canadian study is about to launch that will examine in more detail the role of maternal BMI, co-bedding and the level of health professional supervision prior to recognition of infant deterioration. *See page F395*

## MRI scan findings and outcome in infants with hypoxic ischaemic encephalopathy

Shankaran *et al* examined the relationship between MRI scan findings and outcome amongst 136 infants who participated in the NICHD trial of whole body hypothermia for hypoxic ischaemic encephalopathy. A brain injury score was created based on the imaging findings, without knowledge of the clinical outcome, with increasing score indicating progressively greater brain injury. Injury score was then related to the clinical outcome. The same scans were also evaluated against clinical outcome using two other previously described severity scoring systems. Using the NICHD score, all scans could be categorised. Some could not be categorised using the other two scoring systems. As with the other scoring systems a normal scan was strongly predictive of a normal outcome and a severely abnormal scan strongly predictive of adverse outcome. Each point of increase in the NICHD injury score was associated with a two fold increase in risk of adverse outcome. It is important to note that hypothermia treatment does not appear to influence the prognostic value of MRI. The rating scale is simple to use and could be implemented readily in the clinical setting, thereby improving the quality of information clinicians can offer parents. The paper gives added confidence that MR is

a useful surrogate marker in research studies of HIE. *See page F398*

## Asphyxia as a cause of perinatal arterial ischaemic stroke

Harteman *et al* report on risk factors associated with perinatal arterial ischaemic stroke (PAIS) in a case control study examining 52 infants from a single centre over the 10 years from 2000 to 2010. Multivariable analysis identified maternal fever during delivery (OR 10.2), Apgar score (5 min) <7 (OR 18.1), hypoglycaemia (OR 13.0) and early-onset sepsis/meningitis (OR 5.8) to be independently associated with PAIS. The authors consider that a 5 min Apgar score of <7 likely reflects adverse events during delivery and suggests an important role for fetal distress and subsequent hypoxia-ischaemia in the pathogenic pathway of PAIS. *See page F411*

## Fetomaternal haemorrhage

Stroustrup and Transande used the Nationwide Inpatient Sample to study fetomaternal haemorrhage (FMH). This database uses discharge data from 1054 hospitals in 42 states to present a statistically balanced representation of all hospitalisations in the USA in a given year. FMH was identified in 12 116 singleton births. The incidence of FMH has fallen significantly over time since 1993. The condition is more common in whites and those of higher socioeconomic status. Preterm birth (OR 3.7), placental abruption (OR 9.8) and umbilical cord anomaly (OR 11.4) were risk factors. *See page F405*

## REFERENCE

1. Becher JC, Bhushan SS, Lyon AJ. Unexpected collapse in apparently healthy newborns—a prospective national study of a missing cohort of neonatal deaths and near-death events. *Arch Dis Child Fetal Neonatal Ed* 2012;**97**:F30–4.