Highlights from this issue

Ben J Stenson, *Edition Editor*

EMBRACING MORAL DISTRESS

Trisha Prentice and colleagues' leading article on moral distress is the Editor's choice. It continues the theme from the May issue and is a worthwhile read for all involved in neonatal care. With improving outcomes in the infants at highest risk of mortality and morbidity, clinicians are challenged to re-think the norms by which they set their treatment goals and approaches to communication. Clinicians experience moral distress when they are prevented from acting in accordance with their moral judgements, most commonly when they feel that a child is receiving more treatment than is in his or her best interests. The authors argue that the easy conclusion to reach is that the management plan needs to change, often to palliative care. However, a greater acceptance of moral distress may be required within the context of shared decision-making. The anguish associated with moral distress is legitimate but (except with the advantage of hindsight) it is very difficult to define precisely when the burden of treatment demonstrably outweighs the benefits. Parents have a legitimate say in the care of their child, even if that care is not what all of the clinical team believe is ideal. The article argues that a commitment to shared decision-making and the legitimate role of parents as proxy decision-makers mean that some of the team may have to provide ongoing care despite personally considering it harmful. Where a decision legitimately remains within the zone of parental discretion, clinicians who believe the child is being harmed must be supported in their ongoing provision of care, acknowledging the potential costs and burdens to the clinician. *See page F348*

VARIATIONS IN OUTCOME

The Effective Perinatal Intensive Care in Europe (EPICE) collaboration cohort is a geographically defined prospective study of all very preterm (<32 weeks' gestation) stillbirths and live births in 19 regions of 11 European countries and covers 850 000 births annually. Elizabeth Draper and Colleagues report 2–year neurodevelopmental outcomes assessed from a follow-up questionnaire and abstracted data from obstetric and neonatal records. Of the cohort of 6064 live-born very preterm infants, moderate to severe neurodevelopmental impairment (NDI) ranged from 10.2% in the Netherlands region to 26.1% in the Polish region. The crude standardised prevalence ratio for moderate or severe NDI ranged from a significantly lower rate of 0.60 (95% CI 0.39 to 0.83) in the Netherlands region to a significantly higher rate of 1.53 (95% CI 1.19 to 1.92) in the Polish region. After adjustment for known maternal, pregnancy and infant factors there was wide variation in moderate or severe NDI across countries suggesting that there may be differences in the quality of care provision, treatment and provision of follow-up services for infants across Europe that requires further investigation. In an accompanying editorial, Jonathan Litt draws parallels with data from the USA. With its 50 semiautonomous states and several distinct regions health outcomes such as infant mortality vary quite dramatically among states and between hospitals within states. He argues that identifying the drivers of variation in practice, quality and access to needed services is key. Being born in the right place is a good start for influencing outcome that is still not achieved for a worrying number of babies. Katherine Edwards and Lawrence Impey report a quality improvement approach to achieving greater success in this regard. *See page F350, F344 and F445*

IMPROVING THE INFORMATION ABOUT PERINATAL COVID-19

Current UK practice—keeping mother and newborn together and encouraging breastfeeding—differs from countries affected earlier in the COVID-19 pandemic. Measuring the incidence of neonatal complications of COVID-19 and understanding rates of vertical and perinatal horizontal transmission are essential to inform newborn care following birth to an affected mother. Chris Gale and colleagues report the development of active population surveillance through the British Paediatric Surveillance Unit (BPSU) study on neonatal complications of coronavirus disease. BPSU is asking for cases to be reported weekly and will also link with routinely recorded neonatal and paediatric intensive care data held in the National Neonatal Research Database (NNRD) and Paediatric Intensive Care Audit Network (PICANet). Active surveillance through established systems, with very high population-based case ascertainment are the simplest, quickest and most efficient way to obtain the accurate information that we need. *See page F346*

PROBIOTICS AND NECROTISING ENTEROCOLITIS

Claire Robertson and colleagues report NEC rates over 10 years from a single UK level three neonatal unit in relation to the introduction of multi-strain probiotics for high risk infants. Rates of NEC fell from 7.5% (35/469 neonates) in the pre-implementation epoch to 3.1% (16/513 neonates) in the routine probiotics epoch (adjusted sub-hazard ratio=0.44, 95%CI 0.23 to 0.85, p=0.014). They attempted to control for other confounders that might explain falling NEC rates over time and illustrate a step change in outcomes in close temporal association with their change in policy. Their findings mirror those from a large multicentre German study. Their data do not identify safety concerns and are influential in the face of a meta-analysis of probiotics that shows a very strong overall class effect of probiotic treatment but does not provide substantial efficacy data for any individual preparation. It will be interesting to see if there can be further replication of these findings. *See page F380*

FACE FIT TESTING FOR BABIES?

Face-fit testing for personal protective equipment was all about eliminating mask leak. This is an important skill in newborn resuscitation and stabilisation too. Bianca Haase and colleagues obtained 2-D and 3-D facial images from 102 term and near-term newborn infants and measured their facial dimensions to determine the likely best mask sizes for commercially available round masks. The larger (60 mm and 70 mm external diameter) masks were too big for all but one infant studied. The 50 mm and 42 mm masks covered the widest range of infants. Continuing with a theme of leak, Tessa Martherus and colleagues showed that there can often be a surprisingly large gas leak from the interface between a T-piece resuscitator and a widely used exhaled CO_2 detector, that could influence respiratory support. *See page F364 and F441*