

Ben J Stenson, *Edition Editor***TIME TO FIRST EXPRESSION AFTER VERY PRETERM BIRTH AND MOTHERS' OWN MILK QUANTITY**

Providing mothers' own milk to preterm infants has very important health benefits and is an improvement priority for all neonatal units. Editor's choice this month is this article by Ilana Levene and colleagues reporting observational data on the outcomes of milk expression from 4 UK neonatal units. One hundred and thirty two mothers of singleton or twin infants born at 23+0 to 31+6 weeks gestation recorded data about expression timing, frequency and milk volume as part of a randomised trial of a relaxation intervention. The median time to first expression attempt was 6 hours. Expressing within 6 hours of birth was associated with higher milk yield on day 4 and day 14, but not on day 21. Mothers who expressed within 6 hours of birth had a greater milk yield per expressing session. Participants with caesarean birth, those who were primiparous and those who live in more deprived areas were all less likely to initiate expression early. This will be extremely valuable evidence to motivate mothers and staff in the early hours after birth and highlight circumstances where heightened focus may be important. *See page F475*

HYDROCORTISONE IN VERY PRETERM NEONATES FOR BPD PREVENTION: META-ANALYSIS AND EFFECT SIZE MODIFIERS

Daniele De Luca and colleagues undertook a systematic review and meta-analysis of trials where systemic hydrocortisone was started within the first 2 weeks of life in preterm infants born <30 weeks gestation or <1000 g birth weight. Their PICO question was 'In preterm neonates (P), does systemic hydrocortisone, planned to be started before the 15th day of postnatal age (I), compared with placebo

(C), prevent BPD and other prematurity-related outcomes (O)?' Seven trials enrolling a total of 2193 infants were included. Hydrocortisone treatment did not reduce BPD – risk ratio 0.84 (95% CI 0.64 to 1.04). There was heterogeneity for this outcome, with a greater effect for 10–12 days treatment and in infants exposed to chorioamnionitis. Hydrocortisone treatment was associated with reduced mortality – risk ratio 0.75 (95% CI 0.59 to 0.91) and reduced necrotising enterocolitis – risk ratio 0.72 (95% CI 0.53 to 0.92). There was not heterogeneity for these outcomes. Hydrocortisone did not affect other adverse outcomes of prematurity including late onset sepsis, retinopathy of prematurity, intraventricular haemorrhage, periventricular leukomalacia or single intestinal perforation. The trials took place over a wide time window and varied in their treatment regimens and the authors are cautious about the interpretation, encouraging further trials, while concluding that the treatment may be considered case by case. *See page F481*

VARIATIONS IN NEONATAL MORTALITY OF PRETERM INFANTS WITH INTRAPARENCHYMAL HAEMORRHAGE IN EUROPE

Charline Loth and colleagues report a secondary analysis of the Effective Perinatal Intensive Care in Europe (EPICE) cohort, 2011–2012. This included 6828 infants born alive and admitted to a neonatal unit at 24–31+6 weeks gestation in 19 European countries. Intraparenchymal Haemorrhage (IPH) was diagnosed in 234 infants and 138 of them (59%) died. Mortality rates varied substantially between countries (28.5%–81.2%) with most deaths (69%) following withdrawal of life sustaining treatment. With reference to the UK, mortality rates were significantly higher for France, Denmark

and the Netherlands. Mortality in infants with IPH varied between European countries even after adjusting for perinatal factors. These data imply that decision making is as important as pathology and prognosis in determining outcome from IPH, requiring clinicians to take great care in their communication and recommendations. *See page F488*

THE UK NEONATAL TRANSPORT GROUP DATASET 2012–2021: A NARRATIVE REVIEW

Don Sharkey and colleagues provide a description of the development of the UK Neonatal Transport Group national dataset and its increasing use in benchmarking and quality improvement. The collaborative has gathered data on around 15 000 transports per year since its inception in 2008 and the dataset has evolved with changing practice, facilitating greater standardisation of equipment and standards of care. This has enabled improvements in areas such as time to achieve target temperature for therapeutic hypothermia, avoidance of hypothermia for preterm infant transfers and avoidance of hypocarbia in ventilated infants. Jonathan Davis and Michael Stewart give an international perspective, calling for further international benchmarking and improvement. *See pages F460 and F458*

NEONATAL HIGH FREQUENCY VENTILATION: WHERE ARE WE NOW?

Jakob Hibberd and colleagues provide a comprehensive review on the use of high frequency oscillatory ventilation, combining physiological concepts with the literature describing the use of the technique to give the reader a useful primer on how to get the most out of this technology in a range of clinical circumstances. *See page F467*