

EXCHANGING IMMUNOGLOBULIN FOR EXCHANGE TRANSFUSION . . .

Thanks to anti-D immunoglobulin prophylaxis, there is not a lot of haemolytic disease of the newborn around any more, but the basic treatment is unchanged: phototherapy and exchange transfusion. Exchange transfusion is a hazardous procedure in its own right, it exposes babies to the risk of infection with blood borne viruses, and its evidence base consists of only two randomised controlled trials, both of which used mortality as their end point. So it is a real advance to find that the use of intravenous high dose immunoglobulin offers an opportunity to spare one in three babies the need for exchange transfusion at all, reduces the donor exposure of those who do need an exchange, and gives every affected baby the chance of a shorter hospital stay. We should not forget that the immunoglobulin itself may carry a tiny risk of virus transmission, that haemolytic disease from other isoantibodies was not included in the trials, and that the rate of later top up transfusions increased, but even allowing for these caveats, there is now a compelling case for the routine use of this treatment in those babies unfortunate enough to develop haemolytic disease with significant hyperbilirubinaemia.

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. . . BUT NOT ERYTHROPOIETIN FOR TOP UP TRANSFUSION

Recombinant erythropoietin (Epo) seemed such a promising alternative to the multiple top up transfusions that mark the progress of very preterm babies through their weeks of care

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before discharge home. Yet the meta-analyses show that although there is measurable evidence of a reduction in transfusion requirement, it is small. This month we carry a report from a group that tried to maximise the benefit by rigorously selecting those infants most likely to require transfusion, and randomising them to Epo or no treatment. If there was any effect, it was confined to babies <1000g at birth and over 1 month old, and the subgroup analysis giving rise to this finding is rightly treated very cautiously by the authors. There are other strategies that can reduce exogenous blood requirements and overall donor exposure. The message has to be that we must pursue more actively these alternatives rather than banking on a pharmacological fix.

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ANTIPODEAN OUTCOMES . . .

To complement a paper on the outcome for very low birthweight babies in a national dataset from Finland, we carry two papers reporting national cross sectional and longitudinal outcome data on high risk neonates from New Zealand, as well as a commentary on all three. Collating comprehensive data on outcome must always be a core endeavour for neonatal medicine, and having these data for entire countries is the logical next step from one off studies, or population based registers, from regions within countries.

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. . . AND TRIPLET OUTCOMES

Measuring the outcomes for preterm multiple births has been done before, but not like this. This, the fourth study using a national dataset that we carry this month, provides an unprecedented insight into the complications that triplets face when born with weights of <1500g. The bottom line: they are at significantly higher risk of respiratory disease and death, but not (among survivors) of chronic lung disease or neurological impairment.

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PREVENTING NEC

"Four small trials, all initiated more than 20 years ago . . ." It's taken a long time to get round to this particular meta-analysis. McGuire and Anthony present good evidence that donor human breast milk prevented necrotising enterocolitis, but at a time when perinatal management was significantly different from now. Not only do we not know whether these findings would apply today (although indirect evidence would suggest that they do), there are no randomised control trial data on preterm babies fed their own mother's milk, and important questions such as the effect of using hydrolysate formulas when breast milk is unavailable have never been addressed. The authors make a plea for a decent, large pragmatic trial, but the numbers are daunting: 900 babies for acceptable power. Any takers?

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CME AND ECMO

Two abbreviations that are not obvious bedfellows. But Walker *et al* have demonstrated that some extra continuing medical education for paediatricians is necessary if extracorporeal membrane oxygenation (ECMO), a potentially life saving treatment for meconium aspiration complicated by severe respiratory failure, is to be offered to the right babies at the right time. The authors emphasise that early discussion with an ECMO centre is the key to improved decision making, but in order for this to happen, paediatricians need a more realistic awareness of the risks and benefits of the treatment.

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