

# BAPM annual conference: hearts and minds



Stoller Hall, Manchester, 15-16 September 2022

It's been three years since the last in-person meeting and this year's British Association of Perinatal Medicine (BAPM) conference welcomed 186 delegates to Stoller Hall, Manchester, with a further 259 attendees online. The event saw medical, nursing, and allied health professionals gather to enjoy a wonderful programme of speakers, workshops, exhibitions and even a Schwartz round.

Professor David Edwards from Evelina London Children's Hospital kicked off the 'Hearts and Minds' themed conference with the Founders' Lecture about use of MRI in the preterm infant. He spoke of the prognostic value of cranial ultrasound imaging versus MRI for preterm neurodevelopmental outcomes and suggested that in looking for only intraventricular haemorrhage (IVH) and periventricular leukomalacia (PVL) in preterm babies, we may be missing other determinants of neurodevelopmental outcome. Reduced brain volume and thalamo-cortical connections are seen in preterm babies and those who have undergone long-term ventilation or who have been exposed to an unfavourable *in utero* environment. MRI of the brain is good for predicting group outcomes but is of poor prognostic value for the individual baby.

The next presentation was given by Professor Afif El-Khuffash from The Rotunda Hospital, Dublin, on the topic of haemodynamic assessment and management of hypotension in the preterm infant. The myocardium of preterm babies is unique and still undergoing maturational changes. It is not efficiently contractile, is over-reliant on extracellular calcium and has impaired diastolic function with high resting peripheral resistance and more time in systole compared to diastole. Professor El-Khuffash discussed how differing pathologies merit individual assessment that looks beyond just the mean blood pressure and how managing haemodynamic compromise is not a one-size-fits-all. We must understand the underlying



Professor David Edwards giving the Founders' Lecture.

problem in order to select the most appropriate way of trying to fix it.

Dr Sandeep Shetty, St George's Hospital, spoke about neurally adjusted ventilatory assist (NAVA). NAVA is a recently developed partial respiratory support mode where respiratory support is initiated upon the detection of an electrical signal from the diaphragm and assisted pressure is provided in proportion to the electrical activity of the diaphragm. Initial work suggests that non-invasive NAVA may enable reduced sedation, improve synchrony and reduce extubation failure rates and result in improved nutritional outcomes as well as improved respiratory parameters during skin-to-skin contact in extremely preterm infants. Future randomised controlled trials are required.

Is near infrared spectroscopy (NIRS) a useful clinical tool in the preterm baby? Dr Topun Austin raised this question and discussed the importance of cerebral autoregulation. NIRS is non-invasive and provides a continuous quantitative measure of useful physiological information. Care must be taken in recognising the clinical application of such tools and while there is not yet sufficient

evidence to support its use routinely or in isolation, NIRS is currently the only way of measuring end organ perfusion and may have a role in determining part of the overall clinical picture of our preterm babies.

In the oral presentations of abstracts section, there were talks by Dr Emily Van Blankenstein on trends in active management and neonatal outcomes of babies born at 22-24 weeks' gestation in England and Wales 2018-2021; Dr Hayley McBain on evaluation of the PERIPrem project (perinatal excellence to reduce injury in premature birth); and Dr David Wood about the use of non-invasive positive pressure ventilation (NIPPV) as an extubation modality in infants of <32 weeks' gestation. Dr Blankenstein presented data showing that there has been a three-fold increase in the proportion of 22-week gestation babies receiving survival-focussed care at delivery and that overall, 8% of those alive at the onset of labour are surviving to neonatal unit discharge.

Live participants then had the option to take part in workshops about optimising nutrition in patients with high nutritional needs, or implementation of electronic patient record systems in neonatal units, before coming together to hear Professor Samir Gupta from Durham University give an update on Baby-OSCAR and other patent ductus arteriosus (PDA) trials. With no evidence for early targeted treatment of PDA with ibuprofen, PDA management remains a huge challenge and future trials need to rethink primary outcomes and their inclusion criteria.

Caroline Lee-Davey, Chief Executive of Bliss the charity for babies born premature or sick, presented on the topic of supporting non-birthing partners. She shared some very powerful videos from non-birthing partners who spoke of their experiences and gave real insight into their time on the neonatal unit. We must understand practice barriers and



The theme of this year's BAPM conference: hearts and minds.

inequalities and take care to encourage and empower both parents to be involved in their baby's care. As Caroline says, we all need to remember: "We don't just look after babies; we look after families."

Day one of the conference was brought to a close by Dr Mark Johnson, Consultant Neonatologist, and Sara Clarke, Specialist Neonatal Network Dietitian. Together, they talked about growing neonatal nutrition teams, the complexity of delivering nutrition in preterm babies and the role of the neonatal nutrition team. They spoke of their experiences in establishing a successful neonatal nutrition team and advised how others can go about this, even with limited resources.

The second day of the BAPM conference started early with breakfast workshops. In the family-integrated care workshop, individuals shared how their units have been making changes to support families and spoke of how they have addressed barriers and challenges in doing so. In parallel, a workshop on electronic prescribing provided a thought-provoking session on the advantages of and challenges in the implementation of a new digital system.

There lay ahead a great day with a series of talks beginning with Professor John Boulton, National Director of NHS Quality Improvement and Patient Safety. Professor Boulton delivered a fascinating lecture on

frameworks for safe, reliable and effective care. Topics covered included: a framework for clinical excellence; innovations in maternal and neonatal care; significant shifts in quality improvement (QI) at organisational level, and leadership culture. Leadership is everybody's job and helps to accelerate, sustain and grow QI. We were all challenged to consider our roles in QI and patient safety, including how to speak up.

Professor Chris Gale gave an update on COVID-19 outcomes in affected newborns, including indirect impact of maternal infection, transplacental transmission, postnatal acquisition and neonatal PIMS TS (paediatric inflammatory multisystem syndrome temporally associated with COVID-19). Maternal infection has the biggest effect, as detailed by data from the UK Obstetric Surveillance System (UKOSS) with one fifth of affected mothers having preterm deliveries, increasing the risk of neonatal unit admission. Support for BAPM's advice to keep babies and mums together and prioritise breastfeeding was emphasised and we shouldn't forget potential long-term impacts on neurodevelopmental outcomes. We eagerly await publication of the SINEPOST (SARS-CoV-2 infection in neonates or in pregnancy: outcomes at 18 months) follow up study.

Dr Katie Evans, Neonatal Grid Trainee and Chair of the national NeoTRIPS group, presented the outcomes of the latest Delphi survey of neonatal research priorities, which received input from various stakeholders including medical staff, parents and allied health professionals. Key areas identified were nutrition, feeding and family-integrated care. The top ranked research priorities were:

1. Routine fortification of human milk to improve necrotising enterocolitis (NEC) neurodevelopmental outcomes
2. Intact cord resuscitation
3. Early surgical intervention in NEC and survival and brain injury
4. Therapeutic hypothermia in mild hypoxic-ischaemic encephalopathy
5. NIPPV vs continuous positive airway pressure (CPAP) in <28-week gestation babies as a primary mode of respiratory support.

Sarah Fullwood, Lead Care-Coordinator North West Neonatal Operational Delivery Network, explained progress in establishing care coordinators within the networks. She talked about sharing of resources and collaborative work, and how parent advisory groups are helping to ensure the parent voice is heard. Innovations to support family-integrated care include neonatal network parent passports.



Dr Jacinta Cordwell, Consultant Clinical Psychologist from Oxford, spoke on the role of psychology on neonatal units, including support for babies, families and staff. Improving psychological care must include introduction to the 'parent infant mental health' model, supporting babies in neurodevelopmental care and future planning. Dr Cordwell informed us of a national education package to help staff think more psychologically with a focus on neonatal trauma and the impact on babies, family and staff.

Dr Janet Berrington from Newcastle upon Tyne delivered an exciting lecture on a controversial topic – should we be using probiotics in preterm babies? Dr Berrington took us through various guidelines, discussed how probiotics may impact on NEC, and presented the latest evidence on association with neonatal mortality and morbidity.

Aside from formal lectures, a Schwartz round led by clinical psychologist, Dr Julia Bird, was much appreciated by all conference delegates. There was opportunity to share stories, experiences and reflect. In the poster walks, attendees showcased work being carried out across the neonatal world.

The abstracts presented on day 2 included:

- implementation of a preterm neuroprotection bundle by Dr Alison Mintoft, Neonatal Grid Trainee from University College London Hospital
- a presentation of data on postnatal corticosteroid use in preterm infants – a population-based cohort study from 2010-2020 by Dr T'ng Chang Kwok, Neonatal Research Fellow from the University of Nottingham
- a summary of findings from the National Neonatal Audit Programme on



Dr Katie Gallagher giving the Peter Dunn Lecture.

trends in admissions of extreme preterm infants, 2016-2021 by Dr Katherine Pettinger from Bradford Teaching Hospitals NHSFT.

Dr Hena Syed-Sabir, clinical psychologist at Birmingham Children's Hospital, talked of caring for the carers and the challenges for staff in giving long-term compassionate care. She highlighted the importance of shared values as well as the challenges and rewards that our jobs offer and got us to think about work as 'psychological moving and handling'. She spoke of potential psychological trauma experienced at work and strategies to overcome it. Compassion-focused therapy helps both staff and parents. We learned about the importance of taking breaks and rejuvenating our senses with:

- 5 things to see
- 4 things to feel
- 3 things to hear

■ 2 things to smell

■ 1 thing to taste.

Next time you feel stressed try 30 seconds of calm, thinking of three good things, taking three slow bites and then three deep breaths.

The Peter Dunn Lecture was delivered by Dr Katie Gallagher, Senior Research Fellow from the Institute for Women's Health, University College London, on the topic of breaking bad news on neonatal units. Katie discussed challenges in difficult conversations with parents and how these may impact staff. She noted that outcomes that matter most to parents may differ from what staff assume. We need to provide consistency between healthcare professionals and to empower parents to make informed decisions.

The BAPM 2022 Hearts and Minds conference concluded with the awards ceremony for the free papers and poster prizes. Dr T'ng Chang Kwok won best oral presentation and Dr Maggie Frej won best poster presentation. The BAPM website gives details of the inspiring achievements of the 2022 Gopi Menon Award winners and shortlisted nominees ([www.bapm.org/pages/bapm-gopi-menon-awards-shortlist-2022](http://www.bapm.org/pages/bapm-gopi-menon-awards-shortlist-2022)).

All-in-all, this was an inspiring conference with excellent speakers covering a variety of topics. Delegates left with a great deal of knowledge and renewed motivation to carry on improving and providing high quality neonatal care.

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