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**REGULAR ARTICLES**

**Neonatology**

E499  Pulse oximetry could significantly enhance the early detection of critical congenital heart disease in neonatal intensive care units

_Xiao-jing Hu, Qu-ming Zhao, Xiao-jing Ma, Wei-li Yan, Xiao-ling Ge, Bing Jia, Fang Liu, Lin Wu, Ming Ye & Guo-ying Huang_

**Aim:** Limited data have been available regarding critical congenital heart disease (CHD) screening in neonatal intensive care unit (NICUs). This study evaluated the feasibility of screening for CHD by adding pulse oximetry (POX) to clinical evaluation in a NICU in Shanghai, China.

**Conclusion:** When pulse oximetry screening was added to clinical evaluation, it increased the number of critical CHD cases that were detected in our NICU. This method could provide a useful screening protocol for critical CHD cases.

E506  Chorioamnionitis at birth does not increase the risk of neurodevelopmental disability in premature infants with bronchopulmonary dysplasia

_Rani A. Bashir, Vineet Bhandari, Sukeer Vayalshrikkovil, Yacov Rebi, Amuchou Soraiham, Selphew Tang, Esra Al Asaad & Abhay Lodha_

**Aim:** To compare preterm infants with no bronchopulmonary dysplasia (BPD), BPD with chorioamnionitis (BPDCh) and BPD with no chorioamnionitis (BPDNC) for the association with neurodevelopmental disability (NDD) at three years corrected age.

**Conclusion:** Chorioamnionitis was not associated with any increase in the odds of NDD in infants with BPD at three years corrected age.

E513  Renal function and novel urinary biomarkers in infants with neonatal encephalopathy

_Deirdre U. Sweetman, Chike Onwuneme, William R. Watson, Amanda O’Neill, John E.A. Murphy & Eleanor J. Molloy_

**Aim:** Perinatal asphyxia is associated with multi-organ injury including acute kidney injury (AKI). New urinary biomarkers may detect more subtle renal injury.

**Conclusion:** Asphyxiated infants who develop acute kidney injury have significantly altered urinary biomarkers postnatally. Validation of neonatal AKI urinary biomarkers in a large prospective study is required. Long-term follow-up of infants post-asphyxial insult for chronic renal injury is advised.
Comparative heel stick study showed that newborn infants who had undergone repeated painful procedures showed increased short-term pain responses.

G. Gokulu, H. Bilgen, H. Otelmir, A. Sarıaz, A. Menicioğlu, K. Gocuyuner & E. Özek

**Aim:** We evaluated the short-term effect of repeated pain exposure on the pain responses of newborn infants using different pain assessment methods, as this area had been underresearched.

**Conclusion:** Babies who received more painful stimuli during the first few days of life showed greater pain responses during a subsequent heel prick.

Randomised control trial showed that delayed cord clamping and milking resulted in no significant differences in iron stores and physical growth parameters at one year of age.

Shivam Agarwal, Vijay Jaiswal, Dharamveer Singh, Prateek Jaiswal, Amit Garg & Amit Upadhyay

**Aim:** Placental redistribution has been shown to improve haematological outcomes in the immediate neonatal period and early infancy. This study compared the effects of delayed cord clamping (DCC) and umbilical cord milking (UCM) on haematological and growth parameters at 12 months of age.

**Conclusion:** Term-born Indian infants who had DCC at 60–90 seconds or UCM showed no significant differences in ferritin and haemoglobin levels and growth parameters at 12 months of age.

**Down’s Syndrome**

Down’s syndrome is a risk factor for severe lower respiratory tract infection due to respiratory syncytial virus.

Constanza Galleguillos, Barbara Galleguillos, Guillermo Larios, Gonzalo Menchaca, Louis Bont & José A. Castro-Rodriguez

**Aim:** Previous studies have suggested that Down’s syndrome is an independent risk factor for severe respiratory infection due to respiratory syncytial virus (RSV). We compared the clinical characteristics of children with and without Down’s syndrome hospitalised due to RSV.

**Conclusion:** Children with Down’s syndrome hospitalised due to RSV LRTI had longer hospital stays and worse clinical courses than controls, highlighting the need for RSV prophylaxis for children with Down’s syndrome, especially under one year of age.

**Obesity**

Multidisciplinary care management has a positive effect on paediatric obesity and social and individual factors are associated with better outcomes.

C. Carrière, C. Cabauwel, C. Badé, P. Barberger-Gateau, P. Barat & H. Thibault

**Aim:** The RePPop Aquitaine network, which was established in south-west France to prevent and treat paediatric obesity, has developed a multidisciplinary approach based on multicomponent lifestyle interventions and family-based actions. This study assessed the impact of its care management programme and investigated the factors associated with better outcomes.

**Conclusion:** This study confirmed that multidisciplinary treatment had a significant positive effect on paediatric obesity and that social and individual factors affected the efficiency of the care management.

**Anti-inflammatory Drugs**

National cross-sectional study of nonsteroidal anti-inflammatory drugs use highlights differences between parents and professionals and prompts safety concerns.

Nathalie Bertille, Gérard Poni, Elisabeth Fournier-Charrière, Babak Khooshnood & Martin Chalumeau

**Aim:** Controversy surrounding the safety of nonsteroidal anti-inflammatory drugs (NSAIDs) provides an opportunity to study parents’ and healthcare professionals’ differential use of over-the-counter drugs.

**Conclusion:** The differential use of NSAIDs by healthcare professionals and parents for clinical conditions with potential risks should prompt discussions about the safety of their over-the-counter status.

**Front Cover image:** Mother with six-day-old baby sleeping in a Wahakura safe sleep device. Photo: Guy Robinson, New Zealand.