Publications Working Group

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# American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN

Section on Neonatal-Perinatal Medicine

#### **ARTICLES OF INTEREST – October, 2023**

### Spontaneous resolution of post-hemorrhagic ventricular dilatation in preterm newborns and neurodevelopment Emilie Groulx-Boivin, Mariane Paquette, May Khairy, et al. Pediatr Res.

This multi-center retrospective cohort study included newborns born at ≤34 weeks with PHVD and evaluated the temporal evolution of post-hemorrhagic ventricular dilatation (PHVD). The newborns were divided into three groups: (Group 1) spontaneous resolution of PHVD, (Group 2) persistent PHVD without neurosurgical intervention, and (Group 3) progressive PHVD receiving neurosurgical intervention. Of 88 survivors with PHVD, 39% had a spontaneous resolution, 17% had persistent PHVD without intervention, and 44% had progressive PHVD receiving intervention. The median time between PHVD diagnosis and spontaneous resolution was 14.0 days (IQR 6.8-32.3) and between PHVD diagnosis and first neurosurgical intervention was 12.0 days (IQR 7.0-22.0). Group 1 had reduced severe NDI compared to Group 3 (15% vs 66%; p < 0.001).

Brain injury and long-term outcome after neonatal surgery for non-cardiac congenital anomalies Mark Aalten, Maria Luisa Tataranno, Jeroen Dudink, et al. Pediatr Res.

This article included three studies of 197 infants who underwent neonatal surgery for non-cardiac congenital anomalies (NCCAs) and evaluated brain injury and maturation abnormalities seen on magnetic resonance imaging (MRI) and its associations with neurodevelopment in neonates. The authors found that brain injury was found in n = 120 (50%) patients after NCCA surgery. Sixty (30%) were diagnosed with white matter injury. Cortical folding was delayed in the majority of cases. Brain injury and delayed brain maturation was associated with a decrease in neurodevelopmental outcome at 2 years of age.

### National, regional, and global estimates of preterm birth in 2020, with trends from 2010: a systematic analysis

Eric O Ohuma, Ann-Beth Moller, Ellen Bradley, et al. Lancet.

Preterm birth is the leading cause of neonatal mortality and is associated with long-term physical, neurodevelopmental, and socioeconomic effects. This study updated national preterm birth rates and trends, plus novel estimates by gestational age subgroups, to inform progress towards global health goals and targets, and aimed to update country, regional, and global estimates of preterm birth for 2020 in addition to trends between 2010 and 2020. An estimated 13.4 million newborn babies were born preterm (<37 weeks) in 2020 (9.9% of all births) compared with 13.8 million in 2010 (9.8% of all births) worldwide. There has been no measurable change in preterm birth rates over the last decade at a global level. Despite increasing facility birth rates and substantial focus on routine health data systems, there remain many missed opportunities to improve preterm birth data.

<u>Safety and efficacy of ceftaroline in neonates with staphylococcal late-onset sepsis: a case series analysis</u> Arnaud Callies, Lise Martin-Perceval, Lise Crémet, et al. *Pediatr Infect Dis J.* 

Treatment of late-onset neonatal staphylococcal sepsis is sometimes challenging with feared side effects of vancomycin, increasing minimal inhibitory concentrations and questions about catheter management. In this case series ceftaroline was administered as a compassionate treatment in 16 infants (gestational age of less than 32 weeks and less than 28 postnatal days), whose first-line treatment failed. The authors report 11 successes and no severe adverse drug reactions. Larger data are required to confirm these encouraging results.

# <u>Generalizability of the necrotizing enterocolitis surgery trial to the target population of eligible infants</u>

Matthew A Rysavy, Barry Eggleston, Issa J Dahabreh, et al. J Pediatr.

The Necrotizing Enterocolitis Surgery Trial assessed the difference in death or NDI at 18 to 22 months corrected age between initial laparotomy versus drainage in infants that birth weight  $\leq$ 1,000 grams, age  $\leq$ 8 weeks and 0 days, a decision to perform surgery for suspected NEC or Intestinal Perforation. Overall, there was no overall difference in death or NDI rates at 18 to 22 months corrected age between initial laparotomy versus drainage. The trial included 308 randomized infants. The target population included 382 (156 randomized and 226 eligible, non-randomized) infants. Compared with the target population, fewer randomized infants had necrotizing enterocolitis (31% vs 47%) or died before discharge (27% vs 41%). However, incidence of the primary composite outcome, death or neurodevelopmental impairment, was similar (69% vs 72%).

# National trends in preterm infant mortality in the United States by race and socioeconomic status, 1995-2020

Tim Venkatesan, Philippa Rees, Julian Gardiner, et al. JAMA Pediatr.

This paper characterizes trends in preterm infant mortality by maternal race and socioeconomic status to assess how inequalities in preterm mortality rates have changed over time. This was a retrospective longitudinal descriptive study using the US National Center for Health Statistics birth infant/death data set for 12,256,303 preterm infant births over 26 years, between 1995 and 2020. The average US preterm infant mortality rate (IMR) decreased from 33.71 per 1000 preterm births per year between 1995-1997, to 23.32 between 2018-2020. Black non-Hispanic infants were more likely to die following preterm births than White non-Hispanic; however, once born, extremely prematurely Black and Hispanic infants had a narrow survival advantage. The rate of decrease in preterm IMR was higher in Black infants than in White and Hispanic infants; however, the relative risk of preterm IMR among Black infants compared with White infants remained the same between 1995-1997 vs 2018-2020. The rate of decrease in preterm IMR was higher in nonsmokers compared with smokers, in those with high levels of education compared with those with intermediate or low, and in those who had received adequate antenatal care compared with those who did not. Over time, the relative risk of preterm mortality widened within each of these subgroups. This study found that between 1995 and 2020, US preterm infant mortality improved among all categories of prematurity. Inequalities in preterm infant mortality based on maternal race and ethnicity have remained constant while socioeconomic disparities have widened over time.

# Early glycemic state and outcomes of neonates with hypoxic-ischemic encephalopathy Ulrike Mietzsch, Thomas R Wood, Tai-Wei Wu, et al. *Pediatrics*.

This is a post hoc analysis of the High-dose Erythropoietin for Asphyxia and Encephalopathy trial assessing glycemic profiles in the first 12 hours after birth and their association with death or any NDI at 22 to 36 months in neonates with moderate/severe HIE undergoing therapeutic hypothermia. Hyperglycemia defined as blood glucose (BG) >200 mg/dL, hypoglycemia as BG <50 mg/dL, and euglycemia as 50 to 200 mg/dL. Hypoglycemic neonates had an increased aOR for both death and NDI, whereas hyperglycemic neonates had increased aOR for death, but not NDI.

Expressed breast milk and maternal expression of breast milk for the prevention and treatment of neonatal hypoglycemia: a systematic review and meta-analysis

Oluwatoyin Ibukun Oladimeji, Jane E Harding, Caroline A Crowther, et al. *Matern Health Neonatol Perinatol.* 

This study assessed the impact of EBM and maternal expression of BM for the prevention and treatment of neonatal hypoglycemia. 10 studies were identified that met criteria from the 5 databases and 4 clinical trial registries reviewed. The effect of EBM on neonatal hypoglycemia was not estimable. Although there is limited data, there was no difference in the risk of hypoglycemia among neonates whose mothers expressed breast milk compared to those whose mothers did not [RR (95%CI); one RCT: 0.92 (0.77, 1.10), high-certainty evidence; one cohort: 1.10 (0.74, 1.39), poor quality study].

Effect of oral chondroitin sulfate supplementation on acute brain injury in a murine necrotizing enterocolitis model

Krishna Manohar, Fikir M Mesfin, Jianyun Liu, et al. J Am Coll Surg.

Chondroitin sulfate (CS) is a glycosaminoglycan (GAG) in human breast milk that is absent in conventional formulas. We hypothesized that oral formula supplementation with CS during a murine model of experimental NEC would not only attenuate intestinal injury, but also brain injury. NEC was induced in mouse pups on postnatal day (PND) 5-8. Three conditions were studied: (1) breastfed controls, (2) NEC, and (3) NEC+enteral CS (formula+200 mg/kg/d of CS). Compared to NEC, mice treated with oral CS showed improved clinical outcomes, decreased intestinal injury, and attenuated microglial activation and deleterious cortical change. Oral CS supplementation improved both physiological, clinical, and developmental outcomes. These data suggest that CS is a safe compound for formula supplementation for the prevention of NEC.

# Perinatal azithromycin provides limited neuroprotection in an ovine model of neonatal hypoxic-ischemic encephalopathy

Jana Krystofova Mike, Yasmine White, Rachel S Hutchings, et al. Stroke.

The authors studied the pharmacokinetics, safety, and efficacy of perinatal azithromycin administration in near-term lambs following global ischemic injury to support earlier treatment approaches. Ewes and their lambs of both sexes (n=34, 141-143 days) were randomly assigned to receive azithromycin or placebo before delivery as well as postnatally. Lambs were subjected to severe global hypoxia-ischemia utilizing an acute umbilical cord occlusion model. While maternal azithromycin exhibited relatively low placental transfer, azithromycin-treated lambs recovered spontaneous circulation faster following the initiation of cardiopulmonary resuscitation and were extubated sooner. Azithromycin administration resulted in a systemic immunomodulatory effect, demonstrated by reductions in proinflammatory IL-6 (interleukin-6) levels. Perinatal azithromycin administration enhances neonatal resuscitation, attenuates neuroinflammation, and supports limited improvement of select histological outcomes in an ovine model of hypoxic-ischemic brain injury/encephalopathy. 3-year follow-up of a prospective, multicenter study of the Amplatzer Piccolo<sup>™</sup> Occluder for transcatheter patent ductus arteriosus closure in children ≥ 700 grams Brian H Morray, Shyam K Sathanandam, Thomas Forbes, et al. *J Perinatol.* 

Between June 2017 and February 2019, 200 children were enrolled in this U.S. study. PDA closure, survival, and device- or procedure-related events were evaluated. A total of 156 of the available 182 patients (86%) completed the study. The implant success rate was 95.5% (191/200). At 3 years, PDA closure was observed in 100% (33/33) of patients. Survival was >95% with 9 reported deaths. No deaths were adjudicated as device- or procedure-related. Notable events included aortic obstruction (2) requiring stent placement and tricuspid regurgitation (5), for which no interventions were required.

#### **OTHER NOTEWORTHY PUBLICATIONS – October 2023**

#### COVID-19

Safety and efficacy of ceftaroline in neonates with staphylococcal late-onset sepsis: a case series analysis bacterial infections and clinical outcomes among febrile infants up to 90 days old with Sars-Cov-2 infection: a multicenter cohort study https://pubmed.ncbi.nlm.nih.gov/37406214/

#### **Pediatrics**

Early glycemic state and outcomes of neonates with hypoxic-ischemic encephalopathy <u>https://pubmed.ncbi.nlm.nih.gov/37655394/</u>

#### Journal of Pediatrics

The mortality of congenital syphilis https://www.ncbi.nlm.nih.gov/pubmed/37536483 First three years' experience of mucopolysaccharidosis type-I newborn screening in California https://www.ncbi.nlm.nih.gov/pubmed/37516270 Neonatal thrombocytopenia: factors associated with the platelet count increment following platelet transfusion https://www.ncbi.nlm.nih.gov/pubmed/37572863 Who needs a second dose of exogenous surfactant? https://www.ncbi.nlm.nih.gov/pubmed/37271494 Ultrasonographic estimation of ventricular volume in infants born preterm with posthemorrhagic ventricular dilatation: a nested substudy of the randomized controlled early versus late ventricular intervention study (ELVIS) trial https://www.ncbi.nlm.nih.gov/pubmed/37353143 Grand rounds hyperbilirubinemia following phototherapy in glucose-6-phosphate dehydrogenase-deficient neonates: not out of the woods https://www.ncbi.nlm.nih.gov/pubmed/37169338 Complicated cellulitis is an independent predictor for increased length of stay in the neonatal intensive care unit https://www.ncbi.nlm.nih.gov/pubmed/37353147 Etiology and mechanism of intermittent hypoxemia episodes in spontaneously breathing extremely premature infants https://www.ncbi.nlm.nih.gov/pubmed/37473988 Generalizability of the necrotizing enterocolitis surgery trial to the target population of eligible infants https://www.ncbi.nlm.nih.gov/pubmed/37169336

Severe congenital heart defects and cerebral palsy

https://www.ncbi.nlm.nih.gov/pubmed/37473991

Outcomes of neonates with hypoxic-ischemic encephalopathy treated with magnesium sulfate: a systematic review with meta-analysis

https://www.ncbi.nlm.nih.gov/pubmed/37468038

The impact of intraventricular hemorrhage and periventricular leukomalacia on mortality and neurodevelopmental outcome in very preterm and very low birthweight infants: a prospective population-based cohort study

https://www.ncbi.nlm.nih.gov/pubmed/37402440

Preterm infants off positive pressure respiratory support have a higher incidence of occult cerebral hypoxia

https://www.ncbi.nlm.nih.gov/pubmed/37517651

### Pediatric Research

Brain injury and long-term outcome after neonatal surgery for non-cardiac congenital anomalies <u>https://pubmed.ncbi.nlm.nih.gov/37217607</u>

Current SIDS research: time to resolve conflicting research hypotheses and collaborate <u>https://pubmed.ncbi.nlm.nih.gov/37173404</u>

Impact of COVID-19 pandemic on mother and child health in Sub-Saharan Africa – a review <a href="https://pubmed.ncbi.nlm.nih.gov/37202529">https://pubmed.ncbi.nlm.nih.gov/37202529</a>

Parental cognitive stimulation in preterm-born children's neurocognitive functioning during the preschool years: a systematic review

https://pubmed.ncbi.nlm.nih.gov/37231307

Acute kidney injury decreases pulmonary vascular growth and alveolarization in neonatal rat pups <a href="https://pubmed.ncbi.nlm.nih.gov/37138027">https://pubmed.ncbi.nlm.nih.gov/37138027</a>

The hydrocortisone-responsive urinary metabolome of premature infants

https://pubmed.ncbi.nlm.nih.gov/37138028

Molsidomine decreases hyperoxia-induced lung injury in neonatal rats https://pubmed.ncbi.nlm.nih.gov/37179436

FGF21 modulates hippocampal cold-shock proteins and CA2-subregion proteins in neonatal mice with hypoxia–ischemia

https://pubmed.ncbi.nlm.nih.gov/37193753

Gene expression in the intestine of newborn piglets after hypoxia-reoxygenation <u>https://pubmed.ncbi.nlm.nih.gov/37208432</u>

Evaluation of heterogeneity in effect of therapeutic hypothermia by sex among infants with neonatal encephalopathy

https://pubmed.ncbi.nlm.nih.gov/37012412

Bayley trajectories predict school readiness better than single assessments in formerly very preterm preschoolers

https://pubmed.ncbi.nlm.nih.gov/37217606

Sustained lower bilirubin-binding affinity of albumin in extremely preterm infants https://pubmed.ncbi.nlm.nih.gov/36528748

Preterm infants variability in cerebral near-infrared spectroscopy measurements in the first 72-h after birth

https://pubmed.ncbi.nlm.nih.gov/37138026

Facial thermal response to non-painful stressor in premature and term neonates <u>https://pubmed.ncbi.nlm.nih.gov/37161075</u>

Spontaneous resolution of post-hemorrhagic ventricular dilatation in preterm newborns and neurodevelopment

https://pubmed.ncbi.nlm.nih.gov/37179437

Plasma serotonergic biomarkers are associated with hypoxemia events in preterm neonates <u>https://pubmed.ncbi.nlm.nih.gov/37188799</u>

Hypoxemia events in preterm neonates are associated with urine oxidative biomarkers <u>https://pubmed.ncbi.nlm.nih.gov/37188801</u>

Biomarkers estimating baseline mortality risk for neonatal sepsis: nPERSEVERE: neonate-specific sepsis biomarker risk model

https://pubmed.ncbi.nlm.nih.gov/36513805

Altered maturation in brainstem neural conduction in very premature babies with fetal growth restriction

https://pubmed.ncbi.nlm.nih.gov/36966269

The preterm gut microbiota and administration routes of different probiotics: a randomized controlled trial

https://pubmed.ncbi.nlm.nih.gov/37020105

Lipid profile after omega-3 supplementation in neonates with intrauterine growth retardation: a randomized controlled trial

https://pubmed.ncbi.nlm.nih.gov/37202530

Early exposures and inherent factors in premature newborns are associated with type 1 diabetes <a href="https://pubmed.ncbi.nlm.nih.gov/35488031">https://pubmed.ncbi.nlm.nih.gov/35488031</a>

Preceding risks and mortality outcomes of different neonatal acute kidney injury in preterm infants <u>https://pubmed.ncbi.nlm.nih.gov/37208430</u>

Family reflections: prematurity and the power of parent involvement in research <u>https://pubmed.ncbi.nlm.nih.gov/37460711</u>

### Archives of Disease in Childhood - Fetal & Neonatal Edition

No new content

#### Journal of Perinatology

Clarification of boundaries and scope of cardiac POCUS vs. Targeted Neonatal Echocardiography <a href="https://pubmed.ncbi.nlm.nih.gov/37391508/">https://pubmed.ncbi.nlm.nih.gov/37391508/</a>

Meconium aspiration syndrome: a comprehensive review

https://pubmed.ncbi.nlm.nih.gov/37543651/

Preterm lung and brain responses to mechanical ventilation and corticosteroids https://pubmed.ncbi.nlm.nih.gov/37169913/

Acetaminophen for the patent ductus arteriosus: has safety been adequately demonstrated? <u>https://pubmed.ncbi.nlm.nih.gov/37169914/</u>

3-year follow-up of a prospective, multicenter study of the Amplatzer Piccolo<sup>™</sup> Occluder for transcatheter patent ductus arteriosus closure in children ≥ 700 grams

https://pubmed.ncbi.nlm.nih.gov/37587183/

Patent ductus arteriosus (PDA) and response to late surfactant treatment in premature infants <a href="https://pubmed.ncbi.nlm.nih.gov/37160976/">https://pubmed.ncbi.nlm.nih.gov/37160976/</a>

Prophylactic indomethacin, antenatal betamethasone, and the risk of intestinal perforation in infants <28 weeks' gestation

https://pubmed.ncbi.nlm.nih.gov/36973384/

Neonatal performed echocardiography course: Can we face it?

https://pubmed.ncbi.nlm.nih.gov/36739361/

The association between patterns of early respiratory disease and diastolic dysfunction in preterm infants

https://pubmed.ncbi.nlm.nih.gov/36823313/

Use of vasopressors for septic shock in the neonatal intensive care unit

https://pubmed.ncbi.nlm.nih.gov/37055478/

Novel scoring tool of hypoxemic respiratory failure and pulmonary hypertension for defining severity of persistent pulmonary hypertension of newborn

https://pubmed.ncbi.nlm.nih.gov/37626160/

Cardiopulmonary physiological effects of diuretic therapy in preterm infants with chronic pulmonary hypertension

https://pubmed.ncbi.nlm.nih.gov/37550529/

Assessment of pulmonary artery size at birth as a prognostic factor in congenital diaphragmatic hernia: results of a multicenter study in Japan

https://pubmed.ncbi.nlm.nih.gov/37582931/

The Optimal State Scoring Tool: guidance for interdisciplinary care of infants with severe bronchopulmonary dysplasia and its relation to linear growth

https://pubmed.ncbi.nlm.nih.gov/37185366/

Associations of neighborhood social vulnerability with emergency department visits and readmissions among infants with bronchopulmonary dysplasia

https://pubmed.ncbi.nlm.nih.gov/37491473/

Approaches to evaluation of fluid balance and management of fluid overload in neonates among neonatologists: a Neonatal Kidney Collaborative survey

https://pubmed.ncbi.nlm.nih.gov/37481631/

Severe maternal morbidity rates in a US-based electronic health record database, 2018–2022 <a href="https://pubmed.ncbi.nlm.nih.gov/37640810/">https://pubmed.ncbi.nlm.nih.gov/37640810/</a>

Neonatal outcomes after vacuum-assisted cesarean delivery in a contemporary cohort <u>https://pubmed.ncbi.nlm.nih.gov/37076736/</u>

A quality improvement initiative for neonatal hypoglycemia screening and management in a level III neonatal intensive care unit

https://pubmed.ncbi.nlm.nih.gov/37532760/

Retrospective consent for neonatal intubations. Going with the flow? https://pubmed.ncbi.nlm.nih.gov/37626159/

#### **Neonatology**

Deep medullary vein thrombosis in newborns: a systematic literature review https://pubmed.ncbi.nlm.nih.gov/37379822/

Heart rate characteristics monitoring for late-onset sepsis in preterm infants: a systematic review <a href="https://pubmed.ncbi.nlm.nih.gov/37379804/">https://pubmed.ncbi.nlm.nih.gov/37379804/</a>

Application of artificial intelligence in the early detection of retinopathy of prematurity: review of the literature

https://pubmed.ncbi.nlm.nih.gov/37490881/

Effect of early erythropoietin on retinopathy of prematurity: a stratified meta-analysis <u>https://pubmed.ncbi.nlm.nih.gov/37369177/</u>

A meta-analysis of neurodevelopmental outcomes following intravitreal bevacizumab for the treatment of retinopathy of prematurity

https://pubmed.ncbi.nlm.nih.gov/37487481/

Symptomatic postnatal cytomegalovirus infection in less than 32-week preterm infants: 13-year retrospective multicenter case-control study

https://pubmed.ncbi.nlm.nih.gov/37393900/

Fluctuations in oxygen saturation during synchronized nasal intermittent positive pressure ventilation and nasal high-frequency oscillatory ventilation in very low birth weight infants: a randomized crossover trial

https://pubmed.ncbi.nlm.nih.gov/37393894/

Maternal, perinatal, and postnatal predisposing factors of hearing loss in full-term children: a matched case-control study

https://pubmed.ncbi.nlm.nih.gov/37321203/

The association of dexamethasone and hydrocortisone with cerebellar growth in premature infants <u>https://pubmed.ncbi.nlm.nih.gov/37379806/</u>

Heart rate changes following facemask placement in infants born at  $\geq$ 32+0 weeks of gestation <u>https://pubmed.ncbi.nlm.nih.gov/37531947/</u>

Echocardiographic assessment of pulmonary arterial hypertension following inhaled nitric oxide in infants with severe bronchopulmonary dysplasia

https://pubmed.ncbi.nlm.nih.gov/37573771/

Procalcitonin for detecting culture-positive sepsis in neonates: a prospective, multicenter study

#### https://pubmed.ncbi.nlm.nih.gov/37336195/

Learning-based longitudinal prediction models for mortality risk in very-low-birth-weight infants: a nationwide cohort study

https://pubmed.ncbi.nlm.nih.gov/37459839/

Neonatal thrombocytopenia as a presenting finding in de novo pyruvate kinase deficiency <a href="https://pubmed.ncbi.nlm.nih.gov/37473739/">https://pubmed.ncbi.nlm.nih.gov/37473739/</a>

How to control exposure to fifth-generation radiofrequencies in preterm newborns in incubator https://pubmed.ncbi.nlm.nih.gov/37343536/

#### American Journal of Perinatology

A retrospective review of social deprivation index and maternal outcomes with placenta accreta spectrum from a single referral center

https://www.ncbi.nlm.nih.gov/pubmed/37364598

Lethality of birth defects in live born infants categorized by gestational age and birth weight <a href="https://www.ncbi.nlm.nih.gov/pubmed/34634830">https://www.ncbi.nlm.nih.gov/pubmed/34634830</a>

Parent activation in the neonatal intensive care unit

https://www.ncbi.nlm.nih.gov/pubmed/34638138

Evaluation of the congenital hypothyroidism detection strategy in extremely preterm infants in western Andalusia

https://www.ncbi.nlm.nih.gov/pubmed/34464987

A survey of academic neonatologists on neonatal electrical cardioversion and defibrillation <u>https://www.ncbi.nlm.nih.gov/pubmed/34448175</u>

Early readmission following NICU discharges among a national sample: associated factors and spending

https://www.ncbi.nlm.nih.gov/pubmed/34634829

Decreased cerebral oxygenation in premature infants with progressive posthemorrhagic ventricular dilatation may help with timing of intervention

https://www.ncbi.nlm.nih.gov/pubmed/34674212

Lung volume head ratio: a potential parameter for prediction of respiratory distress in newborn

https://www.ncbi.nlm.nih.gov/pubmed/34544167

Mildly elevated bilirubin levels are associated with increased magnetic resonance imaging signal intensity in the basal ganglia of preterm neonates

https://www.ncbi.nlm.nih.gov/pubmed/34544169

A multistate decomposition analysis of cesarean rate variations, associated health outcomes, and financial implications in the United States

https://www.ncbi.nlm.nih.gov/pubmed/34666396

### Journal of Neonatal-Perinatal Medicine

No new content

#### Maternal Health, Neonatology and Perinatology

Expressed breast milk and maternal expression of breast milk for the prevention and treatment of neonatal hypoglycemia: a systematic review and meta-analysis https://pubmed.ncbi.nlm.nih.gov/37807052/

#### **Neoreviews**

Eyelid, orbital, and lacrimal disorders in the neonate https://pubmed.ncbi.nlm.nih.gov/37777617/ Regional anesthesia for neonates https://pubmed.ncbi.nlm.nih.gov/37777613/ Congenital neck masses https://pubmed.ncbi.nlm.nih.gov/37777610/ Neonatal surgical procedures in the intensive care unit versus the operating room

https://pubmed.ncbi.nlm.nih.gov/37777611/

Newborn with polyuria and hydrocephalus

https://pubmed.ncbi.nlm.nih.gov/37777618/

Refractory hypoxemia and systemic hypertension managed with extracorporeal membrane oxygenation https://pubmed.ncbi.nlm.nih.gov/37777612/

Declining rh(d) immune globulin during pregnancy

https://pubmed.ncbi.nlm.nih.gov/37777614/

Preterm infant with generalized crusted rash

https://pubmed.ncbi.nlm.nih.gov/37777616/

Prenatal diagnosis and postnatal management of a fetal pericardial mass

https://pubmed.ncbi.nlm.nih.gov/37777619/JAMA Pediatrics

# **BMC Pediatrics**

The Cohort of Indonesian Preterm Infants for Long-term Outcomes (CIPTO) study: a protocol <u>https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-023-04263-z.pdf</u> Troponin I, CK-MB, and inotropic score in hypoxic-ischemic encephalopathy and associated infant

mortality

<u>https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-023-04311-8.pdf</u> Oropharyngeal administration of colostrum targeting gut microbiota and metabolites in very preterm infants: protocol for a multicenter randomized controlled trial

https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-023-04346-x.pdf

Serial head circumference measurements should be used to classify congenital microcephaly <u>https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-023-04315-4.pdf</u>

Incidence and predictors of mortality among low birth weight neonates in the first week of life admitted to the neonatal intensive care unit in Northwestern Ethiopia comprehensive specialized hospitals, 2022. Multi-center institution-based retrospective follow-up study

<u>https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-023-04319-0.pdf</u> Communication in the neonatal ICU for Spanish speaking parents: a qualitative interview study <u>https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-023-04301-w.pdf</u>

# Pediatric Critical Care Medicine

No relevant articles

# **New England Journal of Medicine**

Automated insulin delivery in women with pregnancy complicated by type 1 diabetes <u>https://pubmed.ncbi.nlm.nih.gov/37796241/</u> Technology use and glycemic outcomes during pregnancy with type 1 diabetes <u>https://pubmed.ncbi.nlm.nih.gov/37796238/</u>

# Lancet

National, regional, and global estimates of preterm birth in 2020, with trends from 2010: a systematic analysis

https://pubmed.ncbi.nlm.nih.gov/37805217/

Home-based monitoring of ovulation to time frozen embryo transfers in the Netherlands (Antarctica-2): an open-label, nationwide, randomised, non-inferiority trial

https://pubmed.ncbi.nlm.nih.gov/37678290/

Expanding access to breastmilk banks

https://doi.org/10.1016/S0140-6736(23)02395-4

Growing heart in congenital hypopituitarism treated in adulthood

https://pubmed.ncbi.nlm.nih.gov/37898533/

The forgotten girls: the state of evidence for health interventions for pregnant adolescents and their newborns in low-income and middle-income countries

https://pubmed.ncbi.nlm.nih.gov/37837988/

# <u>JAMA</u>

Induced abortion and the risk of Rh sensitization <u>https://pubmed.ncbi.nlm.nih.gov/37750879/</u> American pediatrics: a retrospect and a forecast <u>https://pubmed.ncbi.nlm.nih.gov/37787804/</u> Early metformin in gestational diabetes: a randomized clinical trial <u>https://pubmed.ncbi.nlm.nih.gov/37786390/</u>

# JAMA Pediatrics

National trends in preterm infant mortality in the united states by race and socioeconomic status, 1995-2020 https://www.ncbi.nlm.nih.gov/pubmed/37669025

# <u>BMJ</u>

UK perinatal mortality rates increased in 2021 for first time in seven years <u>https://pubmed.ncbi.nlm.nih.gov/37722726/</u> Suboptimal gestational weight gain and neonatal outcomes in low and middle income countries: individual participant data meta-analysis <u>https://pubmed.ncbi.nlm.nih.gov/37734757/</u> Maternal and neonatal trauma during forceps and vacuum delivery must not be overlooked <u>https://pubmed.ncbi.nlm.nih.gov/37857419/</u> Management of epilepsy during pregnancy and lactation <u>https://pubmed.ncbi.nlm.nih.gov/37684052/</u> Pediatric Infectious Disease Journal

### Pediatric Infectious Disease Journal

Safety and efficacy of ceftaroline in neonates with staphylococcal late-onset sepsis: a case series analysis <a href="https://pubmed.ncbi.nlm.nih.gov/37463358/">https://pubmed.ncbi.nlm.nih.gov/37463358/</a>

Epidemiologic changes of neonatal early-onset sepsis after the implementation of universal maternal screening for group b streptococcus in Hong Kong

https://pubmed.ncbi.nlm.nih.gov/37406223/

Etiology of bacterial sepsis and isolate resistance patterns in hospitalized neonates in Zambia <a href="https://pubmed.ncbi.nlm.nih.gov/37364138/">https://pubmed.ncbi.nlm.nih.gov/37364138/</a>

Clinical and epidemiologic characteristics of infants hospitalized with respiratory syncytial virus infection during the 2022–2023 season in Mexico

https://pubmed.ncbi.nlm.nih.gov/37345924/

Neonatal salmonella meningitis with subdural empyema: a case report

https://pubmed.ncbi.nlm.nih.gov/37310891/

A case of encephalitis following rotavirus vaccine in an infant <a href="https://pubmed.ncbi.nlm.nih.gov/37343213/">https://pubmed.ncbi.nlm.nih.gov/37343213/</a>

# Pediatric Cardiology

Fetal pulmonary venous return: from basic research to the clinical value of doppler assessment https://www.ncbi.nlm.nih.gov/pubmed/37505268 Utility of screening fetal echocardiograms at a single institution following normal obstetric ultrasound in fetuses with Down syndrome https://www.ncbi.nlm.nih.gov/pubmed/37351603 Impact of prenatal diagnosis of critical congenital heart disease on preoperative and postoperative outcomes https://www.ncbi.nlm.nih.gov/pubmed/37289278

### Pediatric Neurology

Utility of brain injury biomarkers in children with congenital heart disease undergoing cardiac surgery

https://www.ncbi.nlm.nih.gov/pubmed/37657124

Improving methods of diagnosis and treatment of posthemorrhagic hydrocephalus in young children

https://www.ncbi.nlm.nih.gov/pubmed/37625173

Perinatal stroke in a Chinese neonatal center: clinical characteristics, long-term outcomes, and prognostic factors

https://www.ncbi.nlm.nih.gov/pubmed/37703655

#### **Obstetrics and Gynecology**

Strategies to promote maternal health equity: the role of perinatal quality collaboratives <a href="https://pubmed.ncbi.nlm.nih.gov/37678899/">https://pubmed.ncbi.nlm.nih.gov/37678899/</a>

Patient-led approaches to a vaginal birth after cesarean delivery calculator <a href="https://pubmed.ncbi.nlm.nih.gov/37734092/">https://pubmed.ncbi.nlm.nih.gov/37734092/</a>

#### American Journal of Obstetrics & Gynecology

Three-tiered fetal heart rate interpretation system and adverse neonatal and maternal outcomes: a systematic review and meta-analysis

https://pubmed.ncbi.nlm.nih.gov/37044237

Cell-free DNA screening for trisomy 21 in twin pregnancy: a large multicenter cohort study <u>https://pubmed.ncbi.nlm.nih.gov/37030426</u>

A comparison of criteria for defining metabolic acidemia in live-born neonates and its effect on predicting serious adverse neonatal outcomes

https://pubmed.ncbi.nlm.nih.gov/36972891

Risk of adverse perinatal outcomes in pregnancies with "small" fetuses not meeting Delphi consensus criteria for fetal growth restriction

https://pubmed.ncbi.nlm.nih.gov/37767605

The relationship between maternal anemia and electronic fetal monitoring patterns <u>https://pubmed.ncbi.nlm.nih.gov/37086877</u>

Risks of stillbirth, neonatal mortality, and severe neonatal morbidity by birthweight centiles associated with expectant management at term

https://pubmed.ncbi.nlm.nih.gov/37150282

Maternal report of cannabis screening and recommendations during prenatal care visits in the United States

https://pubmed.ncbi.nlm.nih.gov/37442248

### **Hospital Pediatrics**

Prevalence and predictors of early intervention referral among substance-exposed newborns <a href="https://pubmed.ncbi.nlm.nih.gov/37750209">https://pubmed.ncbi.nlm.nih.gov/37750209</a>

Laypeople's (mis)understanding of common medical acronyms https://pubmed.ncbi.nlm.nih.gov/37743804

#### **BASIC SCIENCE SELECTIONS**

Adipose stem cells derived exosomes alleviate bronchopulmonary dysplasia and regulate autophagy in neonatal rats

https://www.ncbi.nlm.nih.gov/pubmed/37817518

A predictive model for preterm infants with bronchopulmonary dysplasia based on ferroptosis-related IncRNAs

https://www.ncbi.nlm.nih.gov/pubmed/37784105

CircABPD1 alleviates oxidative lung injury of bronchopulmonary dysplasia through regulating miR-330-3p/HIF1alpha axis

https://www.ncbi.nlm.nih.gov/pubmed/37660980

Superior performance of biofilm versus planktonic Limosilactobacillus reuteri in protection of the intestines and brain in a piglet model of necrotizing enterocolitis <a href="https://www.ncbi.nlm.nih.gov/pubmed/37872187">https://www.ncbi.nlm.nih.gov/pubmed/37872187</a>

Effect of oral chondroitin sulfate supplementation on acute brain injury in a murine necrotizing enterocolitis model

https://www.ncbi.nlm.nih.gov/pubmed/37870229

Protective Effect of the SIRT1-Mediated NF-kappaB Signaling Pathway against Necrotizing Enterocolitis in Neonatal Mice

https://www.ncbi.nlm.nih.gov/pubmed/36379465

Perinatal azithromycin provides limited neuroprotection in an ovine model of neonatal hypoxic-ischemic encephalopathy

https://www.ncbi.nlm.nih.gov/pubmed/37846563

Long-term effect of indomethacin on a rat model of neonatal hypoxia ischemic encephalopathy through behavioral tests

https://www.ncbi.nlm.nih.gov/pubmed/37842754

#### ADDITIONAL JOURNAL SELECTIONS

Microbial signatures in amniotic fluid at preterm birth and association with

bronchopulmonary dysplasia

https://www.ncbi.nlm.nih.gov/pubmed/37845700

Impact of postnatal dexamethasone timing on preterm mortality and bronchopulmonary dysplasia: a propensity score analysis

https://www.ncbi.nlm.nih.gov/pubmed/37591537

Early life surfactant protein-D levels in bronchoalveolar lavage fluids of extremely preterm neonates

https://www.ncbi.nlm.nih.gov/pubmed/37489844

Impact of Transfer for Surgical Management of Preterm Necrotising Enterocolitis or Focal Intestinal Perforation

https://www.ncbi.nlm.nih.gov/pubmed/37100685

Antimicrobial Stewardship in Neonates with Necrotizing Enterocolitis: A Quality Improvement Initiative

https://www.ncbi.nlm.nih.gov/pubmed/37479571

Preceding risks and mortality outcomes of different neonatal acute kidney injury in preterm infants

https://www.ncbi.nlm.nih.gov/pubmed/37208430

Progress in the treatment of neonatal hypoxic-ischemic encephalopathy with umbilical cord blood mononuclear cells

https://www.ncbi.nlm.nih.gov/pubmed/37806836

Safety and efficacy of therapeutic hypothermia in neonates with mild hypoxic-ischemic encephalopathy

https://www.ncbi.nlm.nih.gov/pubmed/37884911

Troponin I, CK-MB, and inotropic score in hypoxic-ischemic encephalopathy and associated infant mortality

https://www.ncbi.nlm.nih.gov/pubmed/37845609

Association of EEG Background and Neurodevelopmental Outcome in Neonates With Hypoxic-Ischemic Encephalopathy Receiving Hypothermia

https://www.ncbi.nlm.nih.gov/pubmed/37816642

Umbilical cord blood hematological parameters in predicting early onset neonatal sepsis

(EOS) - a prospective cohort study

https://www.ncbi.nlm.nih.gov/pubmed/37856248

Early hyperglycemia is associated with increased incidence of severe retinopathy of prematurity in extremely low birth weight infants

https://www.ncbi.nlm.nih.gov/pubmed/37699520

Efficacy comparison of anti-vascular endothelial growth factor drugs for the treatment of type 1 retinopathy of prematurity: A network meta-analysis of randomised controlled trials

https://www.ncbi.nlm.nih.gov/pubmed/37815595

Outcomes for non-treatment-requiring infants evaluated for retinopathy of prematurity <a href="https://www.ncbi.nlm.nih.gov/pubmed/37722621">https://www.ncbi.nlm.nih.gov/pubmed/37722621</a>

A Multicenter Study of Retinopathy of Prematurity Follow-up Adherence <u>https://www.ncbi.nlm.nih.gov/pubmed/37399574</u>

Early readmission of exclusively breastmilk-fed infants born by means of normal birth or cesarean is multifactorial and associated with perinatal maternal mental health concerns <a href="https://www.ncbi.nlm.nih.gov/pubmed/37800358">https://www.ncbi.nlm.nih.gov/pubmed/37800358</a>