

**Publications Working Group**

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DEDICATED TO THE HEALTH OF ALL CHILDREN®

Section on Neonatal-Perinatal Medicine

**ARTICLES OF INTEREST – January 2024**

[Can red blood cell and platelet transfusions have a pathogenic role in bronchopulmonary dysplasia?](#)

Timothy M Bahr, Gregory L Snow, Thomas R Christensen, et al. *J Pediatr*.

This multihospital, retrospective study evaluated infants born  $\leq 29$  weeks or  $< 1000$  g who received red blood cell or platelet transfusions. Of the infants who received transfusions, 84 infants did not develop BPD and 595 did; 352 developed grade 1 (mild), 193 grade 2 (moderate), and 50 grade 3 (severe). For every transfusion, the odds of developing BPD increased by a factor of 2.27 (95% CI, 1.59-3.68;  $P < .001$ ). Of note, modeling predicted that complying with restrictive guidelines could reduce the transfusion rate by 20%-30% and moderate to severe BPD rate by  $\sim 4\%$ -6%.

[High-dose docosahexaenoic acid in newborns born at less than 29 weeks' gestation and behavior at age 5 years follow-up of a randomized clinical trial.](#)

Jacqueline F Gould, Rachel M Roberts, Peter J Anderson, et al. *JAMA Pediatr*.

This study was a 5-year follow-up of children from 10 Australian participating centers in a multi-center, blinded, parallel group randomized clinical trial of infants born at less than 29 weeks' gestation who received daily enteral emulsions providing 60 mg/kg/d of DHA or a soy-oil emulsion (with no DHA) from within the first 3 days of enteral feeding until 36 weeks' postmenstrual age or discharge home, whichever occurred first. Data was available for 731 children (76% of 958 surviving eligible children; 361 in the intervention group and 370 in the control group). Based on parent-completed questionnaires, there was no evidence for differences between the groups in Total Difficulties score or any secondary outcomes of behavior, executive functioning, or health.

[Ultrasound assessment of endotracheal tube depth in neonates: a prospective feasibility study](#)

Orly Levkovitz, Dana Schujovitzky, Rodica Stackievicz, et al. *Arch Dis Child Fetal Neonatal Ed*.

This is a single center prospective study that compared ultrasound assessment of ETT tip position versus ETT position on chest xray (the gold standard for the study). Ultrasound measurement of the ETT tip to right pulmonary artery (RPA) distance was used to determine ETT position according to one-fourth to three-fourths estimated tracheal length for weight. US evaluation of ETT-RPA distance demonstrated strong agreement with CXR position ( $\kappa=0.822$ ); sensitivity 78%, specificity 100%, PPV 100% and NPV 86%. No adverse events were encountered during US scans. The sample size was 33 intubated infants. Therefore, more research would be needed to support the interventions feasibility.

[Under immunization of very low birth weight infants at discharge from the neonatal intensive care Unit](#)

Veronica Quiett, Elizabeth Thompson, Sudha R Raman, et al. *J Perinatol*.

This is a cohort study using a clinical database for infants discharged from 2011 to 2020. The study's primary outcome was immunization status of infants at discharge, defined as receipt of DTaP, IPV, HiB, PC), and Hep B vaccinations. Underimmunization defined as <1 dose of each vaccine type for infants discharged at 60–119 days of age and <2 doses for each type when discharged at 120–179 days of age. Of infants discharged at 60–119 days of age, 14% were underimmunized and for those discharged at 120–179 days of age, 53% were underimmunized. Identifying underimmunization can help provide early identification of infants who can be at risk of underimmunization during childhood.

[Infant outcomes categorized by birth weight percentile for deliveries between 28 and 41 weeks of gestation](#)

Kazuma Onishi and Tetsuya Kawakita. *Obstet Gynecol*.

This population-based retrospective cohort study used publicly available U.S. birth certificate data and studied with association between gestational age and birth weight to infant death data from 2017 to 2019. Maternal–neonate pairs of singleton live births between 28 0/7 and 41 6/7 weeks of gestation were evaluated. Infants with major fetal anomalies, chromosomal disorders, missing data, and birth weight outliers were excluded. There were 10,459,388 births between 28 and 41 weeks of gestation. The patterns in the association between birth weight percentile and infant outcomes varied depending on gestational age. Infant mortality was significantly associated with higher and lower birth weight percentiles at 28–36 weeks of gestation, with the lowest risk observed in the 50th–less than the 75th percentile. At 37–41 weeks of gestation, infant mortality was associated with lower birth weight percentile, but higher birth weight percentiles were not significantly associated with increased mortality. The composite of severe infant morbidity was associated with higher and lower birth weight percentiles at 34–41 weeks of gestation compared with the 50th–less than the 75th percentile.

[Extracellular vesicles from mesenchymal umbilical cord cells exert protection against oxidative stress and fibrosis in a rat model of bronchopulmonary dysplasia](#)

Paola Bisaccia, Fabio Magarotto, Stefania D'Agostino, et al. *Stem Cells Transl Med*.

The authors investigated the effects of mesenchymal stromal cells-derived extracellular vesicles (MSC-EVs) on lung and brain compartment in an animal model of hyperoxia-induced BPD. Rat pups were intratracheally injected with MSC-EVs. Oxidative stress protection by MSC-EVs treatment was proved both in lung and in brain. The lung epithelial compartment ameliorated glycosaminoglycan and surfactant protein expression in MSC-EVs-injected rat pups compared to untreated animals. In conclusion, intratracheal administration of clinical-grade MSC-EVs protect from oxidative stress, improves pulmonary epithelial function, and counteracts the development of fibrosis.

[Melatonin alleviates necrotizing enterocolitis by reducing bile acid levels through the SIRT1/FXR signaling axis](#)

Jiahao Lai, Fei Li, Hongfu Li, et al. *Int Immunopharmacol*.

Bile acids (BAs) have increasingly been implicated in the onset and progression of necrotizing enterocolitis (NEC). The authors conducted transcriptome analysis on intestinal tissues from patients with NEC and validated these findings. Subsequently, they treated mice with melatonin alone or in combination with an agonist/inhibitor of Sirtuin 1 (SIRT1) to assess faecal and serum BA levels, the expression levels of BA transporters and regulators, and the extent of intestinal injury. The transcriptome results indicated dysregulation of BA metabolism and abnormal expression of BA transporters in patients with NEC, which were also observed in the NEC

mouse model. Melatonin effectively restored the aberrant expression of BA transporters, such as apical membrane sodium-dependent bile acid transporters (ASBT), ileal bile acid-binding protein (IBABP), and organic solute transporter-alpha (OST-alpha), by upregulating SIRT1 expression while reducing farnesoid X receptor (FXR) acetylation, consequently leading to decreased serum and faecal BA levels and mitigated NEC severity. These results highlight that melatonin holds promise for reducing BA levels and represents a promising therapeutic strategy for treating NEC.

[Early cardiac function and death, severe bronchopulmonary dysplasia and pulmonary hypertension in extremely preterm infants](#)

Shiran S Moore, Gabriela De Carvalho Nunes, Adrian Dancea, et al. *Pediatr Res.*

Association between early cardiac function and neonatal outcomes are scarcely reported. The aim of the current study was to describe this association with death, severe bronchopulmonary dysplasia (BPD) and BPD-related pulmonary hypertension (PH). Retrospective cohort study of 176 infants <29 weeks born between 2015 and 2019. Infants with clinically acquired echocardiography at ≤21 days after birth were included and data were extracted by an expert masked to outcomes. In extremely premature infants, altered ventricular function and increased pulmonary pressure indices within the first 21 days after birth, were associated with the combined outcome of death/severe BPD and death/BPD-related PH.

[Effect of non-pharmacological interventions on pain in preterm infants in the neonatal intensive care unit: a network meta-analysis of randomized controlled trials](#)

Yuwei Weng, Jie Zhang and Zhifang Chen. *BMC Pediatr.*

The authors sought to evaluate the effectiveness of different non-pharmacological interventions for pain management in preterm infants and provide high-quality clinical evidence. Randomized controlled trials of various non-pharmacological interventions for pain management in preterm infants were searched from PubMed, Web of Science, Embase, and the Cochrane Library from 2000 to the present (updated March 2023). The authors showed that there are notable variations in the effectiveness of different non-pharmacological interventions in terms of pain scores and oxygen saturation. However, there was no evidence of any improvement in heart rate.

[Considerations on the use of neonatal and pediatric resuscitation guidelines for hospitalized neonates and infants: on behalf of the american heart association emergency cardiovascular care committee and the american academy of pediatrics](#)

Taylor Sawyer, Mary E McBride, Anne Ades, et al. *Pediatrics.*

Trends in mortality and morbidities for infants born 24 to 28 weeks in the us: 1997–2021

Jeffrey D Horbar, Lucy T Greenberg, Jeffrey S Buzas, et al. *Pediatrics.*

<https://pubmed.ncbi.nlm.nih.gov/38053449/>

Analyses of data for 447 396 infants at 888 hospitals identified 3 time point segments for mortality, late onset sepsis, chronic lung disease, severe intraventricular hemorrhage, severe retinopathy of prematurity, and death or morbidity, and 4 for necrotizing enterocolitis. Mortality decreased from 2005 to 2021, but more slowly since 2012. Late-onset sepsis decreased from 1997 to 2021, but more slowly since 2012. Severe retinopathy of prematurity decreased from 2002 to 2021, but more slowly since 2011. Necrotizing enterocolitis, severe intraventricular hemorrhage, and death or morbidity were stable since 2015. Chronic lung disease has increased since 2012. Improvements in mortality and morbidity have slowed, stalled, or reversed in recent years. The article proposes a 3-part strategy to regain the pace of improvement: research; quality improvement; and follow through, practicing social as well as technical medicine to improve the health and well-being of infants and families.

## **OTHER NOTEWORTHY PUBLICATIONS – January, 2024**

### COVID-19

Effects of the COVID-19 pandemic on the outcomes of HIV-exposed neonates: a Zimbabwean tertiary hospital experience

<https://pubmed.ncbi.nlm.nih.gov/38183019/>

### Pediatrics

Trends in mortality and morbidities for infants born 24 to 28 weeks in the us: 1997–2021

<https://pubmed.ncbi.nlm.nih.gov/38053449/>

Transition to adulthood for extremely preterm survivors

<https://pubmed.ncbi.nlm.nih.gov/38124530/>

Maternal pre-pregnancy BMI, breastfeeding, and child BMI

<https://pubmed.ncbi.nlm.nih.gov/38111349/>

Breastfeeding and once-daily small-volume formula supplementation to prevent infant growth impairment

<https://pubmed.ncbi.nlm.nih.gov/38062778/>

Considerations on the use of neonatal and pediatric resuscitation guidelines for hospitalized neonates and infants: on behalf of the american heart association emergency cardiovascular care committee and the american academy of pediatrics

<https://pubmed.ncbi.nlm.nih.gov/38105696/>

### Journal of Pediatrics

We still don't know when to close a patent ductus arteriosus in infants born very premature

<https://pubmed.ncbi.nlm.nih.gov/37926295/>

Spectrum of disease in hospitalized newborns with congenital micrognathia: a cohort of 3,236 infants at North American tertiary-care intensive care units

<https://pubmed.ncbi.nlm.nih.gov/37879601/>

Three-year post-neonatal intensive care unit health care utilization among infants with congenital anomalies

<https://pubmed.ncbi.nlm.nih.gov/37852433/>

Effect of systemic hydrocortisone on brain abnormalities and regional brain volumes in ventilator-dependent infants born preterm: substudy of the SToP-BPD study

<https://pubmed.ncbi.nlm.nih.gov/37923196/>

Can red blood cell and platelet transfusions have a pathogenic role in bronchopulmonary dysplasia?

<https://pubmed.ncbi.nlm.nih.gov/37992802/>

Risk factors for admission hyperthermia and associated outcomes in infants born preterm

<https://pubmed.ncbi.nlm.nih.gov/37995929/>

### Pediatric Research

The neural exposome influences the preterm fetal-to-neonatal connectome

<https://pubmed.ncbi.nlm.nih.gov/37689773/>

Mesenchymal stem cell therapy in perinatal arterial ischemic stroke: systematic review of preclinical studies

<https://pubmed.ncbi.nlm.nih.gov/35906311/>

Quantitative impact of frenotomy on breastfeeding: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37608056/>

Safety and efficacy of adding postbiotics in infant formula: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37700163/>

Diaphragmatic electromyography in infants: an overview of possible clinical applications

<https://pubmed.ncbi.nlm.nih.gov/37660179/>

Effects of fetal growth restriction on the perinatal neurovascular unit and possible treatment targets

<https://pubmed.ncbi.nlm.nih.gov/37674023/>

National Pediatrician-Scientist Collaborative Workgroup comment on new ACGME requirements' impact on pediatric physician-scientists

<https://pubmed.ncbi.nlm.nih.gov/37684431/>

Grading the level of evidence of neonatal pharmacotherapy: midazolam and phenobarbital as examples

<https://pubmed.ncbi.nlm.nih.gov/37752246/>

Rectal temperature after hypoxia-ischemia predicts white matter and cortical pathology in the near-term ferret

<https://pubmed.ncbi.nlm.nih.gov/37684430/>

Extracorporeal life support without systemic anticoagulation: a nitric oxide-based non-thrombogenic circuit for the artificial placenta in an ovine model

<https://pubmed.ncbi.nlm.nih.gov/37087539/>

Genetic etiology of progressive pediatric neurological disorders

<https://pubmed.ncbi.nlm.nih.gov/37563452/>

Therapeutic hypothermia modulates the neurogenic response of the newborn piglet subventricular zone after hypoxia-ischemia

<https://pubmed.ncbi.nlm.nih.gov/37573381/>

Insulin-like growth factor 1 associated with altered immune responses in preterm infants and pigs

<https://pubmed.ncbi.nlm.nih.gov/37648745/>

Lung ultrasound detects regional aeration inhomogeneity in ventilated preterm lambs

<https://pubmed.ncbi.nlm.nih.gov/37591926/>

Investigating prenatal and perinatal factors on meconium microbiota: a systematic review and cohort study

<https://pubmed.ncbi.nlm.nih.gov/37591927/>

Novel pathogenic GATA6 variant associated with congenital heart disease, diabetes mellitus and necrotizing enterocolitis

<https://pubmed.ncbi.nlm.nih.gov/37700164/>

Comparison of hemodynamic effects of chest compression delivered via machine or human in asphyxiated piglets

<https://pubmed.ncbi.nlm.nih.gov/37741932/>

Neonatal resuscitation with continuous chest compressions and high frequency percussive ventilation in preterm lambs

<https://pubmed.ncbi.nlm.nih.gov/37726545/>

Interleukin-17A stimulation induces alterations in Microglial microRNA expression profiles

<https://pubmed.ncbi.nlm.nih.gov/37758861/>

Early EEG-burst sharpness and 2-year disability in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/37500756/>

Baseline azithromycin resistance in the gut microbiota of preterm born infants

<https://pubmed.ncbi.nlm.nih.gov/37550487/>

Establishing a regional registry for neonatal encephalopathy: impact on identification of gaps in practice

<https://pubmed.ncbi.nlm.nih.gov/37553453/>

Divergent neurodevelopmental profiles of very-low-birth-weight infants

<https://pubmed.ncbi.nlm.nih.gov/37626120/>

The beneficial effect of prophylactic hydrocortisone treatment in extremely preterm infants improves upon adjustment of the baseline characteristics

<https://pubmed.ncbi.nlm.nih.gov/37653218/>

Caffeine and kidney function at two years in former extremely low gestational age neonates

<https://pubmed.ncbi.nlm.nih.gov/37660176/>

Childhood growth outcomes 2 years after hypertensive versus normotensive pregnancy: a P4 study

<https://pubmed.ncbi.nlm.nih.gov/37674022/>

Predictive and diagnostic measures for kernicterus spectrum disorder: a prospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/37689774/>

\*\*\*Early cardiac function and death, severe bronchopulmonary dysplasia and pulmonary hypertension in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/37726544/>

The prevalence and impact of small intestine bacterial overgrowth in biliary atresia patients

<https://pubmed.ncbi.nlm.nih.gov/37726543/>

Cardiometabolic health in adults born with very low birth weight—a sibling study

<https://pubmed.ncbi.nlm.nih.gov/37758863/>

Maternal physical activity, sitting, and risk of non-cardiac birth defects

<https://pubmed.ncbi.nlm.nih.gov/37543708/>

Impact of low-level prenatal alcohol exposure and maternal stress on autonomic regulation

<https://pubmed.ncbi.nlm.nih.gov/37674025/>

Neurodevelopmental and behavioral outcomes of very preterm infants: latent profile analysis in the Environmental influences on Child Health Outcomes (ECHO) Program

<https://pubmed.ncbi.nlm.nih.gov/37700161/>

Lung ultrasound-guided best positive end-expiratory pressure in neonatal anesthesia: a proposed randomized, controlled study

<https://pubmed.ncbi.nlm.nih.gov/37648746/>

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

One-year survival and outcomes of infants born at 22 and 23 weeks of gestation in Sweden 2004–2007, 2014–2016 and 2017–2019

<https://pubmed.ncbi.nlm.nih.gov/37290903/>

Hypoglycaemia and hyperglycaemia in neonatal encephalopathy: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37316160/>

Neurodevelopment and healthcare utilisation at age 5–6 years in bronchopulmonary dysplasia: an EPIPAGE-2 cohort study

<https://pubmed.ncbi.nlm.nih.gov/37364896/>

Switch from intravenous-to-oral antibiotics in neonatal probable and proven early-onset infection: a prospective population-based real-life multicentre cohort study

<https://pubmed.ncbi.nlm.nih.gov/37369601/>

Predictive performance of multiple organ dysfunction in asphyxiated newborns treated with therapeutic hypothermia on 24-month outcome: a cohort study

<https://pubmed.ncbi.nlm.nih.gov/37369599/>

Mask ventilation using volume-targeted neonatal ventilator for neonatal resuscitation: a randomised cross-over simulation study

<https://pubmed.ncbi.nlm.nih.gov/37369598/>

Prevalence of symptomatic tracheal morbidities after fetoscopic endoluminal tracheal occlusion: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37419685/>

Family experiences of antenatal counselling of spina bifida: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/37433589/>

Randomised control trial of oxygen assist module in preterm infants on high-flow nasal cannula support

<https://pubmed.ncbi.nlm.nih.gov/37451840/>

Safety and feasibility of platelet transfusion through long catheters in the neonatal intensive care unit: an in vitro study

<https://pubmed.ncbi.nlm.nih.gov/37433587/>

Exhaled CO<sub>2</sub> monitoring to guide non-invasive ventilation at birth: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/37558397/>

Apnoea-triggered increase in fraction of inspired oxygen in preterm infants: a randomised cross-over study

<https://pubmed.ncbi.nlm.nih.gov/37640527/>

Factors associated with the increased incidence of necrotising enterocolitis in extremely preterm infants in Sweden between two population-based national cohorts (2004–2007 vs

2014–2016)

<https://pubmed.ncbi.nlm.nih.gov/37788898/>

Ultrasound assessment of endotracheal tube depth in neonates: a prospective feasibility study

<https://pubmed.ncbi.nlm.nih.gov/37553228/>

Continuous interstitial glucose monitoring for term newborns: analysis of the first day of life

<https://pubmed.ncbi.nlm.nih.gov/37580119/>

Parental perspectives about information and deferred versus two-stage consent in studies of neonatal asphyxia

<https://pubmed.ncbi.nlm.nih.gov/37648417/>

#### Journal of Perinatology

Differences in delivery hospitalization experiences during the COVID-19 pandemic by maternal race and ethnicity, Pregnancy Risk Assessment Monitoring System, 2020

<https://pubmed.ncbi.nlm.nih.gov/37660214/>

SARS-CoV-2 neutralizing antibody titers in maternal blood, umbilical cord blood, and breast milk

<https://pubmed.ncbi.nlm.nih.gov/38092879/>

Trends in COVID-19 diagnoses and outcomes in infants hospitalized in the neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/37452116/>

Impact of the COVID-19 pandemic on early intervention utilization and need for referral after NICU discharge in VLBW infants

<https://pubmed.ncbi.nlm.nih.gov/37414845/>

Molecular detection of bacteria, placental inflammation, and neonatal sepsis risk

<https://pubmed.ncbi.nlm.nih.gov/37700009/>

Underimmunization of very low birth weight infants at discharge from the neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/37880407/>

Changes in perceptions of antibiotic stewardship among neonatal intensive care unit providers over the course of a learning collaborative: a prospective, multisite, mixed-methods evaluation

<https://pubmed.ncbi.nlm.nih.gov/38001155/>

Feeding characteristics of healthy infants without reported feeding impairments throughout the first month of life

<https://pubmed.ncbi.nlm.nih.gov/37700008/>

Follow-up of a randomized trial optimizing neonatal nutrition in preterm very low birthweight infants: growth, serum adipokines, renal function and blood pressure

<https://pubmed.ncbi.nlm.nih.gov/37964083/>

Characteristics of esophageal refluxate and symptoms in infants compared between pre-treatment and on treatment with proton pump inhibitors

<https://pubmed.ncbi.nlm.nih.gov/37980392/>

Risk factors and epidemiology of spontaneous intestinal perforation among infants born at 22–24 weeks' gestational age

<https://pubmed.ncbi.nlm.nih.gov/37759034/>

Cholestasis is associated with a higher rate of complications in both medical and surgical necrotizing enterocolitis

<https://pubmed.ncbi.nlm.nih.gov/37805591/>

Association between neurodevelopmental outcomes and concomitant presence of NEC and IVH in extremely low birth weight infants

<https://pubmed.ncbi.nlm.nih.gov/37735208/>

A quality improvement initiative to reduce antibiotic use in transient tachypnea of the newborn

<https://pubmed.ncbi.nlm.nih.gov/38123798/>

#### Neonatology

No new articles

### American Journal of Perinatology

Less invasive surfactant administration: a viewpoint

<https://pubmed.ncbi.nlm.nih.gov/36539205>

Association between SARS-CoV-2 infection and adverse perinatal outcomes in a large health maintenance organization

<https://pubmed.ncbi.nlm.nih.gov/35738286>

Application of electrocardiogram localization during peripherally inserted central catheter line insertion into the persistent left superior vena cava of neonates

<https://pubmed.ncbi.nlm.nih.gov/34856614>

Correlation and prediction of oxygen index from oxygen saturation index in neonates with acute respiratory failure

<https://pubmed.ncbi.nlm.nih.gov/34666386>

Association of intrapartum drugs with spontaneous intestinal perforation: a single-center retrospective review

<https://pubmed.ncbi.nlm.nih.gov/34666387>

Lower vitamin D level as a risk factor for late onset neonatal sepsis: an observational case-control study

<https://pubmed.ncbi.nlm.nih.gov/34839468>

Contribution of concurrent comorbidities to sepsis-related mortality in preterm infants  $\leq 32$  weeks of gestation at an academic neonatal intensive care network

<https://pubmed.ncbi.nlm.nih.gov/34674193>

Impact on neonatal outcomes with late preterm and early term delivery in women with diabetes

<https://pubmed.ncbi.nlm.nih.gov/37696290>

Pregnant populations which benefit from vaginal progesterone for preventing preterm birth at  $< 34$  weeks and neonatal morbidities: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/35709736>

The effects of cannabis use during pregnancy on low birth weight and preterm birth: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/35901851>

Urinary n-terminal pro-brain natriuretic peptide in newborn infants with cardiac and pulmonary diseases

<https://pubmed.ncbi.nlm.nih.gov/34856611>

Breastfeeding intention, knowledge, and attitude of pregnant women in treatment for opioid use disorder

<https://pubmed.ncbi.nlm.nih.gov/34839473>

The Hassan neonatal morbidity composite scale and neonatal length of stay—a validation study

<https://pubmed.ncbi.nlm.nih.gov/34856613>

### Journal of Neonatal-Perinatal Medicine

No new articles

### Maternal Health, Neonatology and Perinatology

That head lag is impressive! Infantile botulism in the NICU: a case report

<https://pubmed.ncbi.nlm.nih.gov/38167130/>

Unconditional cash transfers for preterm neonates: evidence, policy implications, and next steps for research

<https://pubmed.ncbi.nlm.nih.gov/38183138/>

### Neoreviews

A call for early detection of cerebral palsy

<https://pubmed.ncbi.nlm.nih.gov/38161182/>

Nutritional needs of the infant with bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/38161180/>

Optimizing nutrition in neonates with kidney dysfunction



<https://pubmed.ncbi.nlm.nih.gov/38161179/>

Common clinical scenarios of systemic hypertension in the NICU

<https://pubmed.ncbi.nlm.nih.gov/38161177/>

A term neonate with encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/38161178/>

A newborn with inspiratory stridor

<https://pubmed.ncbi.nlm.nih.gov/38161181/>

Tachycardia in a premature neonate

<https://pubmed.ncbi.nlm.nih.gov/38161184/>

Fetal injury from maternal penetrating abdominal trauma in pregnancy

<https://pubmed.ncbi.nlm.nih.gov/38161183/>

Umbilical cord abnormality in a monochorionic-monoamniotic twin pregnancy

<https://pubmed.ncbi.nlm.nih.gov/38161185/>

#### JAMA Pediatrics

High-dose docosahexaenoic acid in newborns born at less than 29 weeks' gestation and behavior at age 5 years follow-up of a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/37983037/>

Maternal nativity and preterm birth

<https://pubmed.ncbi.nlm.nih.gov/37955913/>

Trends in prevalence of breastfeeding initiation and duration among US children, 1999 to 2018

<https://pubmed.ncbi.nlm.nih.gov/37955893/>

#### BMC Pediatrics

Treatment-related problems in neonates receiving parenteral nutrition: risk factors and implications for practice

<https://pubmed.ncbi.nlm.nih.gov/38172740/>

Postnatal treatment and evolution patterns of giant fetal hepatic hemangioma: a case series of 29 patients

<https://pubmed.ncbi.nlm.nih.gov/38172842/>

Effect of non-pharmacological interventions on pain in preterm infants in the neonatal intensive care unit: a network meta-analysis of randomized controlled trials

<https://pubmed.ncbi.nlm.nih.gov/38172771/>

Hematological profiles of newborns of mothers with hypertensive disorders of pregnancy delivered at the University of Gondar comprehensive specialized hospital: a comparative cross-sectional study

<https://pubmed.ncbi.nlm.nih.gov/38183053/>

Measurement of Bisphenol A Diglycidyl Ether (BADGE), BADGE derivatives, and Bisphenol F Diglycidyl Ether (BFDGE) in Japanese infants with NICU hospitalization history

<https://pubmed.ncbi.nlm.nih.gov/38191376/>

Health seeking behaviour and knowledge on neonatal danger signs among neonatal caregivers in Upper Denkyira East Municipality, Ghana

<https://pubmed.ncbi.nlm.nih.gov/38191444/>

Congenital cytomegalovirus infection in newborns suspected of congenital rubella syndrome in Iran: a cross-sectional study

<https://pubmed.ncbi.nlm.nih.gov/38200453/>

Continuous versus intermittent bolus infusion of calcium in preterm infants receiving total parenteral nutrition: a randomized blind clinical trial

<https://pubmed.ncbi.nlm.nih.gov/38216920/>

Too hot to thrive: a qualitative inquiry of community perspectives on the effect of high ambient temperature on postpartum women and neonates in Kilifi, Kenya

<https://pubmed.ncbi.nlm.nih.gov/38216969/>

The tortuous diagnosis of one case of neonatal hyperthyroidism

<https://pubmed.ncbi.nlm.nih.gov/38218773/>

Biochemical profiles and organ dysfunction in neonates with hypoxic-ischemic encephalopathy post-hoc analysis of the THIN trial

<https://pubmed.ncbi.nlm.nih.gov/38225562/>

Heparin versus normal saline for the care of peripheral intravenous catheters in pediatrics: a meta-analysis of randomized controlled trials

<https://pubmed.ncbi.nlm.nih.gov/38225601/>

Epidemiology, risk factors, clinical presentation and complications of late-onset neonatal sepsis among preterm neonates in Cyprus: a prospective case-control study

<https://pubmed.ncbi.nlm.nih.gov/38229029/>

The correlation between lung ultrasound scores and outcomes of high-flow nasal cannula therapy in infants with severe pneumonia

<https://pubmed.ncbi.nlm.nih.gov/38229006/>

Neonatal upper limb fractures – a narrative overview of the literature

<https://pubmed.ncbi.nlm.nih.gov/38243191/>

Using a new human milk fortifier to optimize human milk feeding among very preterm and/or very low birth weight infants: a multicenter study in China

<https://pubmed.ncbi.nlm.nih.gov/38243173/>

Predictors of time to full enteral feeding in low birth weight neonates admitted to neonatal intensive care unit: a prospective follow up study

<https://pubmed.ncbi.nlm.nih.gov/38245699/>

Up-to-date quality survey and evaluation of neonatal screening programs in China

<https://pubmed.ncbi.nlm.nih.gov/38245686/>

Exploration of programmed cell death-associated characteristics and immune infiltration in neonatal sepsis: new insights from bioinformatics analysis and machine learning

<https://pubmed.ncbi.nlm.nih.gov/38245687/>

Clinical characteristics of congenital heart defects in mild congenital anorectal malformation: single-centre experience

<https://pubmed.ncbi.nlm.nih.gov/38245711/>

Undernutrition in young children with congenital heart disease undergoing cardiac surgery in a low-income environment

<https://pubmed.ncbi.nlm.nih.gov/38262979/>

Long-term follow-up of neuropsychological complications in neonates undergoing extracorporeal membrane oxygenation: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/38267850/>

Length of hospital stay and factors associated with very-low-birth-weight preterm neonates surviving to discharge a cross-sectional study, 2022

<https://pubmed.ncbi.nlm.nih.gov/38279136/>

Associations between UGT1A1, SLCO1B1, SLCO1B3, BLVRA and HMOX1 polymorphisms and susceptibility to neonatal severe hyperbilirubinemia in Chinese Han population

<https://pubmed.ncbi.nlm.nih.gov/38279097/>

Short term effect of intravenous treprostinil in term and preterm infants with pulmonary hypertension

<https://pubmed.ncbi.nlm.nih.gov/38281939/>

### Pediatric Critical Care Medicine

Survival with favorable neurologic outcome and quality of cardiopulmonary resuscitation following in-hospital cardiac arrest in children with cardiac disease compared with noncardiac disease

<https://pubmed.ncbi.nlm.nih.gov/37678381/>

Performance of tools and measures to predict fluid responsiveness in pediatric shock and critical illness: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37462437/>

Dexmedetomidine withdrawal syndrome in children in the PICU: systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37855676/>

Pediatric death after withdrawal of life-sustaining therapies: a scoping review

<https://pubmed.ncbi.nlm.nih.gov/37678383/>

Venovenous extracorporeal membrane oxygenation initiation for pediatric acute respiratory distress syndrome with cardiovascular instability is associated with an immediate and sustained decrease in vasoactive-inotropic scores

<https://pubmed.ncbi.nlm.nih.gov/37462429/>

About centrifugal or roller blood pumps for neonatal venovenous extracorporeal membrane oxygenation

<https://pubmed.ncbi.nlm.nih.gov/38169341/>

New England Journal of Medicine

Two randomized trials of low-dose calcium supplementation in pregnancy

<https://www.ncbi.nlm.nih.gov/pubmed/38197817>

Syphilis complicating pregnancy and congenital syphilis (review article)

<https://www.ncbi.nlm.nih.gov/pubmed/38231625>

Lancet

No relevant articles

JAMA

No relevant articles

BMJ

No relevant articles

Pediatric Infectious Disease Journal

Group B streptococcal disease in infants in Japan (review article)

<https://www.ncbi.nlm.nih.gov/pubmed/37922509>

Pediatric Cardiology

Longitudinal strain vs. conventional echocardiographic parameters in the first week of life in healthy term newborns

<https://pubmed.ncbi.nlm.nih.gov/38062260>

Clinical prognosis of vocal cord paralysis after cardiothoracic surgery in infants

<https://pubmed.ncbi.nlm.nih.gov/38070026>

Outcomes and associated extracardiac malformations in neonates from Colombia with severe congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/37814158>

Reducing hyperoxia exposure in infants requiring veno-arterial extracorporeal membrane oxygenation after cardiac surgery

<https://pubmed.ncbi.nlm.nih.gov/37698698>

Pediatric Neurology

Hammersmith infant neurological examination subscores are predictive of cerebral palsy

<https://pubmed.ncbi.nlm.nih.gov/38134865>

Neurological and visual outcomes in infants and toddlers following therapeutic hypothermia for neonatal hypoxic-ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/38157718>

The association of therapeutic hypothermia with seizure burden in neonates with hypoxic-ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/38157720>

Obstetrics and Gynecology

Infant outcomes categorized by birth weight percentile for deliveries between 28 and 41 weeks of gestation

<https://www.ncbi.nlm.nih.gov/pubmed/37769317>

Antenatal corticosteroids at 21-23 weeks of gestation

<https://www.ncbi.nlm.nih.gov/pubmed/37708497>

Neonatal hypoxic-ischemic encephalopathy and hypothermia treatment (review)

<https://www.ncbi.nlm.nih.gov/pubmed/37797337>

Obstetric and neonatal outcomes after transferring more than one embryo in patients with preimplantation genetic testing

<https://www.ncbi.nlm.nih.gov/pubmed/37944144>

#### American Journal of Obstetrics & Gynecology

The end is where we start from: withdrawal of 17-alpha hydroxyprogesterone caproate to prevent recurrent preterm birth

<https://pubmed.ncbi.nlm.nih.gov/37798189/>

Incidence and causes of perinatal death in prenatally diagnosed vasa previa: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37321285/>

Clinical implications of crown-rump length discordance at 11 to 14 weeks in dichorionic twins

<https://pubmed.ncbi.nlm.nih.gov/37487855/>

Fetal insular measurements in pregnancy with estimated fetal weight <10th centile and childhood neurodevelopmental outcomes

<https://pubmed.ncbi.nlm.nih.gov/37442246/>

Third-trimester fetoscopic ablation therapy for types II and III vasa previa

<https://pubmed.ncbi.nlm.nih.gov/37741533/>

Adverse pregnancy outcomes and risk of type 2 diabetes in postmenopausal women

<https://pubmed.ncbi.nlm.nih.gov/37490991/>

#### Hospital Pediatrics

Dexmedetomidine during therapeutic hypothermia: a multicenter quality initiative

<https://pubmed.ncbi.nlm.nih.gov/38115800/>

Variation in length of stay by level of neonatal care among moderate and late preterm infants

<https://pubmed.ncbi.nlm.nih.gov/38058236/>

When to transfer: predictors of pediatric high flow nasal cannula failure at a community hospital

<https://pubmed.ncbi.nlm.nih.gov/38093648/>

Time to positive blood and cerebrospinal fluid cultures in hypothermic young infants

<https://pubmed.ncbi.nlm.nih.gov/38062772/>

Benchmarking pediatric palliative care delivery

<https://pubmed.ncbi.nlm.nih.gov/38044711/>

#### **BASIC SCIENCE SELECTIONS**

Antenatal endotoxin induces dysanapsis in experimental bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38207120>

IRF4 affects the protective effect of regulatory T cells on the pulmonary vasculature of a bronchopulmonary dysplasia mouse model by regulating FOXP3

<https://www.ncbi.nlm.nih.gov/pubmed/38195465>

Hyperoxia-induced airflow restriction and Renin-Angiotensin System expression in a bronchopulmonary dysplasia mouse model

<https://www.ncbi.nlm.nih.gov/pubmed/38163662>

Extracellular vesicles from mesenchymal umbilical cord cells exert protection against oxidative stress and fibrosis in a rat model of bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/37963808>

Melatonin alleviates necrotizing enterocolitis by reducing bile acid levels through the

SIRT1/FXR signaling axis

<https://www.ncbi.nlm.nih.gov/pubmed/38176339>

cGAS deficiency regulates the phenotypic polarization and glycolysis of microglia through lactylation in hypoxic-ischemic encephalopathy cell model

<https://www.ncbi.nlm.nih.gov/pubmed/38246965>

#### ADDITIONAL JOURNAL SELECTIONS

Types of home respiratory support in children with bronchopulmonary dysplasia and factors determining its duration: A scoping review

<https://www.ncbi.nlm.nih.gov/pubmed/38197530>

Estimating the effect of diuretics and inhaled corticosteroids for evolving bronchopulmonary dysplasia in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/38192005>

Predischarge death or lung transplantation in tracheostomy and ventilator dependent grade 3 bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38165155>

Breast-feeding as protective factor against bronchopulmonary dysplasia in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/38163989>

Cord blood cortisol level - a possible predictor for respiratory distress syndrome in preterm neonates

<https://www.ncbi.nlm.nih.gov/pubmed/38192132>

Gestational diabetes and late preterm birth: outcomes with and without exposure to antenatal corticosteroid

<https://www.ncbi.nlm.nih.gov/pubmed/38242498>

Correlation between the closure time of patent ductus arteriosus in preterm infants and long-term neurodevelopmental outcome

<https://www.ncbi.nlm.nih.gov/pubmed/38248896>

Adolescent kidney outcomes after extremely preterm birth and neonatal acute kidney injury: there may be more to the story

<https://www.ncbi.nlm.nih.gov/pubmed/38195965>

Targeted LC-MS/MS profiling of bile acids reveals primary/secondary bile acid ratio as a novel biomarker for necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/37938412>

Clostridium scindens exacerbates experimental necrotizing enterocolitis via upregulation of the apical sodium-dependent bile acid transporter

<https://www.ncbi.nlm.nih.gov/pubmed/37933481>

Retinopathy of prematurity screening: prevalence and risk factors of ophthalmic complications in non-treated preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/38212403>

Systemic exposure to aflibercept after intravitreal injection in premature neonates with retinopathy of prematurity: results from the FIREFLEYE randomized phase 3 study

<https://www.ncbi.nlm.nih.gov/pubmed/38200320>

Inflammatory and hematologic liver and platelet (HALP) scores in hypothermia-treated hypoxic-ischemic encephalopathy (HIE)

<https://www.ncbi.nlm.nih.gov/pubmed/38255385>