

**Publications Working Group**

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American Academy  
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DEDICATED TO THE HEALTH OF ALL CHILDREN®

Section on Neonatal-Perinatal Medicine

**ARTICLES OF INTEREST – February 2024**

[Prophylactic oropharyngeal surfactant for preterm newborns at birth - a randomized clinical trial](#)

Madeleine C Murphy, Jan Miletin, Claus Klingenberg, et al. *JAMA Pediatr.*

This randomized clinical trial found that administration of prophylactic oropharyngeal surfactant to newborns born before 29 weeks' GA did not reduce the rate of intubation in the first 120 hours of life. These findings suggest that administration of surfactant into the oropharynx immediately after birth in addition to CPAP should not be routinely used.

[Morbidity and mortality of twins and triplets compared to singleton infants delivered between 26–34 weeks gestation in the United States](#)

Sara Khan, Ryan Kilpatrick, Daniel K Benjamin, et al. *J Perinatol.*

This retrospective analysis of inborn infants discharged from a neonatal intensive care units (NICU) managed by the Pediatrix Medical Group between 2010 and 2018 aims to describe in-hospital morbidities and mortality among twins and triplets delivered at  $\geq 26$  to  $\leq 34$  weeks gestational age (GA) while controlling for prematurity and growth restriction. Inclusion and exclusion criteria were pre-specified. Infants with gestational age (GA)  $\geq 26$  to  $\leq 34$  weeks were included. Infants born from higher order ( $>3$ ) multiple gestation pregnancy or missing discharge status were excluded. Infants with documented diagnosis of twin-to-twin transfusion syndrome or major congenital anomalies expected to cause substantial long-term developmental impact or surgical intervention early in life were excluded. Out of 1,433,061 infants screened, 247,437 infants met inclusion criteria and were included in the analysis. After adjusting for GA, SGA status, sex, prenatal steroid exposure, and PROM, twins and triplets had lower odds of requiring respiratory support postnatal days 0 or 1, receiving surfactant, hyperbilirubinemia requiring phototherapy, seizure, EOS, death prior to discharge, and discharge with respiratory support compared to singletons. Twins, though not triplets, were less likely to experience Grade 3 or 4 IVH and LOS. Twins, though not triplets, had higher odds of PDA needing procedural intervention, inguinal hernia, and ROP treatment. There was no detected difference in adjusted odds of pneumothorax, NEC, VLOS, tracheostomy, gastrostomy tube placement, and BPD. Mortality rates for singletons, twins and triplets were 1.2%, 0.7% and 0.8%, respectively. The results from this study seem to suggest that singletons experience greater morbidity and mortality compared to twins and triplets born  $\geq 26$  weeks to  $\leq 34$  weeks GA, except PDA requiring procedural intervention, ROP requiring treatment, and longer length of stay. A major limitation of the study is that a large number of infants with twin-to-twin transfusion were excluded and the study team did not have access to chorionicity and amnionicity of the multiple gestation infants.

[Transpyloric feeding is associated with adverse in-hospital outcomes in infants with severe bronchopulmonary dysplasia](#)

Jonathan C Levin, Matthew J Kielt, Lystra P Hayden, et al. *J Perinatol*.

This retrospective multi-center cohort study of preterm infants <32 weeks with sBPD receiving enteral feedings was conducted at centers participating in the BPD collaborative with the aim of estimating the association of transpyloric feeding (TPF) with the composite outcome of tracheostomy or death for patients with severe bronchopulmonary dysplasia (sBPD). The exposure variable of TPF was defined in the registry as receiving jejunal feeding at one or more of the three key timepoints assessed – 36 weeks, 44 weeks, or 50 weeks PMA. The primary outcome of the study was the composite outcome of death or tracheostomy. Among the 1039 included patients, 129 (12%) were exposed to TPF at one or more of the three key timepoints; 59/931 (6%) at 36 weeks PMA, 74/588 (13%) at 44 weeks PMA, and 45/337 (13%) at 50 weeks PMA. Infants exposed to TPF at any of the key timepoints were more likely to be invasively ventilated, require higher ventilator pressures at each of the key timepoints, and require higher FiO<sub>2</sub> at 36 and 44 weeks PMA. In adjusted analyses, controlling for GA, SGA, male sex, FiO<sub>2</sub> at 36 weeks, and invasive ventilation at 36 weeks PMA, TPF was associated with an increased adjusted odds of tracheostomy or death (aOR 3.5, 95% CI 2.0–6.1, p < 0.001). TPF was also associated with an increased odds of prolonged length of stay (discharge PMA > 56.4 weeks) or death (aOR 3.1, 95% CI 1.9–5.2, p < 0.001) and placement of tracheostomy (aOR 4.0, 95% CI 2.2–7.3, p < 0.001) and gastrostomy or jejunostomy (aOR 4.9, 95% CI 2.6–8.6, p < 0.001) among survivors, but was not associated with an increased odds of death alone (aOR 1.5, 95% CI 0.5–3.5). The results from this study suggest that the use of TPF after 36 weeks PMA was associated with adverse in-hospital outcomes, including: (1) tracheostomy or death prior to discharge, (2) prolonged length of stay or death prior to discharge, and (3) tracheostomy and gastrostomy or jejunostomy among survivors. A major limitation of this study is the authors did not have the information on the indication for the use of TPF.

[Advances in the care of infants with prenatal opioid exposure and neonatal opioid withdrawal syndrome](#)

Margarida Mascarenhas, Elisha M Wachman, Iyra Chandra, et al. *Pediatrics*.

This review summarizes major advances and provides an overview of NOWS care to promote the implementation of best practices. Standardization of the clinical diagnosis of NOWS is reviewed and commonly used assessment strategies are discussed, to include the new function-based assessment Eat, Sleep, and Console approach. Nonpharmacologic and pharmacologic treatment modalities are presented, highlighting the use of higher calorie and low lactose formula, vibrating crib mattresses, morphine compared with methadone, buprenorphine compared with morphine or methadone, the use of ondansetron, and symptom-triggered dosing compared with scheduled dosing. Finally maternal, infant, environmental, and genetic factors associated with NOWS severity are highlighted as well as emerging recommendations on postdelivery hospitalization follow-up and developmental surveillance.

[2023 American Heart Association and American Academy of Pediatrics focused update on neonatal resuscitation: an update to the American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care](#)

Nicole K Yamada, Edgardo Szlyd, Marya L Strand, et al. *Pediatrics*.

This focused update to the neonatal resuscitation guidelines is based on 4 systematic reviews recently completed under the direction of the International Liaison Committee on Resuscitation Neonatal Life Support Task Force on umbilical cord management in preterm, late preterm, and term newborn infants, and the optimal devices and interfaces used for administering positive-pressure ventilation during resuscitation of newborn infants. These recommendations provide new guidance on the use of intact umbilical cord milking (depending on gestational age), device selection for administering positive-

pressure ventilation (T-piece preferred with self-inflating bag as backup), and an additional primary interface for administering positive-pressure ventilation (such as a supraglottic airway).

[Feasibility and Safety of Sildenafil to Repair Brain Injury Secondary to Birth Asphyxia \(SANE-01\): A randomized, double-blind, placebo-controlled phase Ib clinical trial](#)

Pia Wintermark, Anie Lapointe, Robin Steinhorn, et al. *J Pediatr*.

In this randomized, double-blind, placebo-controlled phase Ib clinical trial in neonates with moderate or severe neonatal encephalopathy (NE), displaying brain injury on day-2 magnetic resonance imaging despite therapeutic hypothermia (TH) were randomized (2:1) to 7-day sildenafil or placebo. Outcomes included feasibility and safety (primary outcomes), pharmacokinetics (secondary), and day-30 neuroimaging and 18-month neurodevelopment assessments (exploratory). The rate of death or survival to 18 months with severe neurodevelopmental impairment was 57% (4/7) in the sildenafil group and 100% (3/3) in the placebo group. The authors conclude that sildenafil was safe and well-absorbed in neonates with NE treated with TH, however, optimal dosing needs to be established and evaluation of a larger number of neonates through subsequent phases II and III trials is required to establish efficacy.

[Prophylactic oropharyngeal surfactant for preterm newborns at birth: a randomized clinical trial](#)

Madeleine C Murphy, Jan Miletin, Claus Klingenberg, et al. *JAMA Pediatr*.

In this randomized, clinical trial the authors sought to assess whether giving prophylactic oropharyngeal surfactant to preterm newborns at birth would reduce the rate of intubation for respiratory failure. Newborns born before 29 weeks of gestation were randomly assigned to receive oropharyngeal surfactant at birth in addition to CPAP or CPAP alone. The primary outcome was intubation in the delivery room for bradycardia and/or apnea or in the neonatal intensive care unit for prespecified respiratory failure criteria within 120 hours of birth. The authors found that administration of prophylactic oropharyngeal surfactant to newborns born before 29 weeks' GA did not reduce the rate of intubation in the first 120 hours of life. These findings suggest that administration of surfactant into the oropharynx immediately after birth in addition to CPAP should not be routinely used.

[Oral administration of bone marrow-derived mesenchymal stem cells attenuates intestinal injury in necrotizing enterocolitis](#)

Yeong Seok Lee, Yong Hoon Jun and Juyoung Lee. *Clin Exp Pediatr*.

This study aimed to determine the optimal dose of intraperitoneally administered bone marrow-derived mesenchymal stem cells (BM-MSCs) and investigate the therapeutic potential of orally administered BM-MSCs in NEC. Neonatal mice were fed maternal breast milk for the first 2 days of life. On day 3, the neonatal mice were randomly divided into control, negative control, and BM-MSC-treated groups. High-dose ( $1 \times 10^6$  cells) or low-dose ( $1 \times 10^5$  cells) BM-MSCs were administered intraperitoneally 1 or 3 times between days 6 and 8 to treat the NEC. The orally administered group received a low dose of BM-MSCs on day 6. Tissue injury, apoptosis, and inflammatory marker levels were significantly reduced after BM-MSC administration. Oral administration was as effective as intraperitoneal administration, even at a low dose ( $1 \times 10^5$  cells) of BM-MSCs. The oral administration of BM-MSCs is a promising treatment option for NEC in infants.

### [Aquaporin 4 mediates the effect of iron overload on hydrocephalus after intraventricular Hemorrhage](#)

Ying Li, Ding Nan, Ran Liu, et al. *Neurocrit Care*.

Iron overload plays an important role in hydrocephalus development following intraventricular hemorrhage (IVH). Aquaporin 4 (AQP4) participates in the balance of cerebrospinal fluid secretion and absorption. This study investigated the role of AQP4 in the formation of hydrocephalus caused by iron overload after IVH. There were three parts to this study. Sprague-Dawley rats received an intraventricular injection of 100 microl autologous blood or saline control. Second, rats had IVH and were treated with deferoxamine (DFX), an iron chelator, or vehicle. Third, rats had IVH and were treated with 2-(nicotinamide)-1,3,4-thiadiazole (TGN-020), a specific AQP4 inhibitor, or vehicle. Rats underwent imaging to assess lateral ventricular volume and intraventricular iron deposition at 7, 14, and 28 days after intraventricular injection. Intraventricular injection of autologous blood caused a significant ventricular dilatation, iron deposition, and ventricular wall damage. AQP4 located in the periventricular area mediated the effect of iron overload on hydrocephalus after IVH.

### [Neurodevelopmental outcomes of extremely preterm infants fed donor milk or preterm infant formula a randomized clinical trial](#)

Tarah T. Colaizy, Brenda B. Poindexter, Scott A. McDonald, et al. *JAMA*.

This is a double blinded, RCT assessing neurodevelopmental outcomes among extremely preterm infants comparing donor human milk with preterm formula for those infants who received minimal maternal breastmilk. 483 infants were randomized. The study assessed neurodevelopment at 22 to 26 months' corrected age. The adjusted mean BSID cognitive score was 80.7 (SD, 17.4) for the donor milk group vs 81.1 (SD, 16.7) for the preterm formula group; mean BSID language and motor scores also did not differ. However, there was higher incidence of NEC in the preterm formula group, slower weight gain in the donor milk group, and no difference for mortality. Neurodevelopmental outcomes at 22 to 26 months' corrected age did not differ between infants fed donor milk or preterm formula.

## **OTHER NOTEWORTHY PUBLICATIONS – February 2024**

### **COVID-19**

Neonatal outcomes after COVID-19 vaccination in pregnancy

<https://pubmed.ncbi.nlm.nih.gov/38319332/>

### **Pediatrics**

Corrected age at Bayley assessment and developmental delay in extreme preterms

<https://pubmed.ncbi.nlm.nih.gov/38186292>

Marijuana use and breastfeeding: a survey of newborn nurseries

<https://pubmed.ncbi.nlm.nih.gov/38247374>

Transfer patterns among infants born at 28 to 34 weeks' gestation

<https://pubmed.ncbi.nlm.nih.gov/38268423>

The prematurity paradox: reevaluating the kindergarten readiness of former preterm infants

<https://pubmed.ncbi.nlm.nih.gov/38186291>

Formula for a crisis: systemic inequities highlighted by the US infant formula shortage

<https://pubmed.ncbi.nlm.nih.gov/38196392>

Advances in the care of infants with prenatal opioid exposure and neonatal opioid withdrawal syndrome

<https://pubmed.ncbi.nlm.nih.gov/38178779>

2023 American Heart Association and American Academy of Pediatrics focused update on neonatal resuscitation: an update to the American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care

<https://pubmed.ncbi.nlm.nih.gov/37970665>

Neonatal opioid withdrawal syndrome following prenatal use of supplements containing tianeptine

<https://pubmed.ncbi.nlm.nih.gov/38213293>

Child health needs and the neonatal–perinatal medicine workforce: 2020–2040

<https://pubmed.ncbi.nlm.nih.gov/38300002>

### **Journal of Pediatrics**

Improving neonatal patient outcomes using simulation-based education

<https://pubmed.ncbi.nlm.nih.gov/38096976/>

Diuretic tolerance to repeated-dose furosemide in infants born very preterm with bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/37918519/>

Neonatal hypoxic-ischemic encephalopathy spectrum: severity-stratified analysis of neuroimaging modalities and association with neurodevelopmental outcomes

<https://pubmed.ncbi.nlm.nih.gov/38061422/>

Shape of pulmonary artery doppler flow profile and right ventricular hemodynamics in neonates

<https://pubmed.ncbi.nlm.nih.gov/38052293/>

Time to reaching target cooling temperature and 2-year outcomes in infants with hypoxic-ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/38006967/>

Perioperative brain injury in relation to early neurodevelopment among children with severe congenital heart disease: results from a European collaboration

<https://pubmed.ncbi.nlm.nih.gov/37995930/>

Normative magnetic resonance imaging data increase the sensitivity to brain volume abnormalities in the classification of fetal alcohol spectrum disorder

<https://pubmed.ncbi.nlm.nih.gov/38065282/>

Clinical decision support for improved neonatal care: the development of a machine learning model for the prediction of late-onset sepsis and necrotizing enterocolitis

<https://pubmed.ncbi.nlm.nih.gov/38065281/>

Unbound bilirubin and acute bilirubin encephalopathy in infants born late preterm and term with significant hyperbilirubinemia

<https://pubmed.ncbi.nlm.nih.gov/38135027/>

A dyadic framework of care for opioid-exposed birthing persons and their infants and children

<https://pubmed.ncbi.nlm.nih.gov/38142930/>

Variations in site-specific costs for infants born extremely preterm in Canadian neonatal intensive care units

<https://pubmed.ncbi.nlm.nih.gov/38096975/>

Secular trends in patent ductus arteriosus management in infants born preterm in the national institute of child health and human development neonatal research network

<https://pubmed.ncbi.nlm.nih.gov/38135028/>

Annular erythema of infancy

<https://pubmed.ncbi.nlm.nih.gov/38008213/>

### **Pediatric Research**

Neurodevelopmental outcomes in preterm or low birth weight infants with germinal matrix-intraventricular hemorrhage: a meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/37935882/>

Aberrant colon metabolome and the sudden infant death syndrome

<https://pubmed.ncbi.nlm.nih.gov/37833530/>

Effects of pasteurization on osteopontin concentrations in human breastmilk

<https://pubmed.ncbi.nlm.nih.gov/37833533/>

Metabolic and fecal microbial changes in adult fetal growth restricted mice

<https://pubmed.ncbi.nlm.nih.gov/37935884/>

Sustained inflation improves initial lung aeration in newborn rabbits with a diaphragmatic hernia

<https://pubmed.ncbi.nlm.nih.gov/37952056/>

Predicting mental and psychomotor delay in very pre-term infants using machine learning

<https://pubmed.ncbi.nlm.nih.gov/37500755/>

Music for pain relief of minor procedures in term neonates

<https://pubmed.ncbi.nlm.nih.gov/37640940/>

Developmental trajectories of late preterm infants and predictors of academic performance

<https://pubmed.ncbi.nlm.nih.gov/37626121/>

Blood pressure normative values in preterm infants during postnatal transition

<https://pubmed.ncbi.nlm.nih.gov/37667035/>

Neonatal mortality and video assessment of resuscitation in four district hospitals in Pemba, Tanzania

<https://pubmed.ncbi.nlm.nih.gov/37770540/>

Factors that determine first intubation attempt success in high-risk neonates

<https://pubmed.ncbi.nlm.nih.gov/37777605/>

Functional characterization of two novel NKX2-1 frameshift variants that cause pulmonary surfactant dysfunction

<https://pubmed.ncbi.nlm.nih.gov/37935886/>

Seizures after initiation of rewarming in cooled infants with hypoxic ischaemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/37914821/>

Antisecretory factor in breastmilk is associated with reduced incidence of sepsis in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/38001236/>

sTREM2 in the prognostic evaluation of acute lung injury after cardiac surgery in infants

<https://pubmed.ncbi.nlm.nih.gov/38007519/>

Cohort selection and the estimation of racial disparity in mortality of extremely preterm neonates

<https://pubmed.ncbi.nlm.nih.gov/37580552/>

Breastfeeding and neurodevelopment in infants with prenatal alcohol exposure

<https://pubmed.ncbi.nlm.nih.gov/37845525/>

Markers of platelet activation foR identification of late onset sEpsis in infaNTs: PARENT study protocol

<https://pubmed.ncbi.nlm.nih.gov/37758864/>

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

Haemodynamic assessment and management of hypotension in the preterm [Review]

<https://www.ncbi.nlm.nih.gov/pubmed/37173119>

Clinical outcomes of Staphylococcus capitis isolation from neonates, England, 2015–2021: a retrospective case–control study

<https://www.ncbi.nlm.nih.gov/pubmed/37751992>

Advance care planning in perinatal settings: national survey of implementation using Normalisation Process Theory

<https://www.ncbi.nlm.nih.gov/pubmed/37709497>

Two-year neurodevelopmental data for preterm infants born over an 11-year period in England and Wales, 2008–2018: a retrospective study using the National Neonatal Research Database

<https://www.ncbi.nlm.nih.gov/pubmed/37788897>

Neuroimaging in infants with congenital cytomegalovirus infection and its correlation with outcome: emphasis on white matter abnormalities

<https://www.ncbi.nlm.nih.gov/pubmed/37739774>

Identifying effect modifiers of systemic hydrocortisone treatment initiated 7–14 days after birth in ventilated very preterm infants on long-term outcome: secondary analysis of a randomised controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/37722765>

First-year growth trajectory and early nutritional requirements for optimal growth in infants with congenital diaphragmatic hernia: a retrospective cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/37666658>

Preliminary results on validity and reliability from two prospective cohort studies on a new Neonatal Coma Score



<https://www.ncbi.nlm.nih.gov/pubmed/37652673>

Congenital duodenal obstruction repair with and without transanastomotic tube feeding: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/37923385>

Neurodevelopmental outcomes at age 3 years after moderate preterm, late preterm and early term birth: the Japan Environment and Children's Study

<https://www.ncbi.nlm.nih.gov/pubmed/37709498>

2% chlorhexidine gluconate aqueous versus 2% chlorhexidine gluconate in 70% isopropyl alcohol for skin disinfection prior to percutaneous central venous catheterisation: the ARCTIC randomised controlled feasibility trial

<https://www.ncbi.nlm.nih.gov/pubmed/37907266>

Neurodevelopmental outcomes of preterm neonates receiving rescue inhaled nitric oxide in the first week of age: a cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/37890983>

Volume-targeted mask ventilation during simulated neonatal resuscitation

<https://www.ncbi.nlm.nih.gov/pubmed/37775257>

Prolonged use of closed-loop inspired oxygen support in preterm infants: a randomised controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/37827816>

### **Journal of Perinatology**

Delirium in the NICU [Review]

<https://www.ncbi.nlm.nih.gov/pubmed/37684547>

Efficacy and safety of dexmedetomidine for analgesia and sedation in neonates: a systematic review

<https://www.ncbi.nlm.nih.gov/pubmed/37845426>

The effect of demographic, financial and hospital factors on the length of stay of preterm infants: a US national database study

<https://www.ncbi.nlm.nih.gov/pubmed/38007592>

The association of maternal country/region of origin and nativity with infant mortality rate among Hispanic preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/38233581>

The effect of fertility treatment and socioeconomic status on neonatal and post-neonatal mortality in the United States

<https://www.ncbi.nlm.nih.gov/pubmed/38212435>

Impact of corticosteroid exposure on preterm labor in neonates eventually born at term

<https://www.ncbi.nlm.nih.gov/pubmed/38040875>

Declining birth rates, increasing maternal age and neonatal intensive care unit admissions

<https://www.ncbi.nlm.nih.gov/pubmed/38012436>

Resuscitation, survival and morbidity of extremely preterm infants in California 2011–2019

<https://www.ncbi.nlm.nih.gov/pubmed/37689808>

Increasing trends in a low 5-min Apgar score among (near) term singletons: a Dutch nationwide cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/37853089>

Quality, outcome, and cost of care provided to very low birth weight infants in California

<https://www.ncbi.nlm.nih.gov/pubmed/37805592>

Morbidity and mortality of twins and triplets compared to singleton infants delivered between 26–34 weeks gestation in the United States

<https://www.ncbi.nlm.nih.gov/pubmed/37989884>

Comparison of laryngeal mask airway and endotracheal tube placement in neonates

<https://www.ncbi.nlm.nih.gov/pubmed/37503152>

Tidal volume delivery during nasal intermittent positive pressure ventilation: infant cannula vs. nasal continuous positive airway pressure prongs

<https://www.ncbi.nlm.nih.gov/pubmed/38129599>

Predictors of successful extubation from volume-targeted ventilation in extremely preterm neonates

<https://www.ncbi.nlm.nih.gov/pubmed/38123799>

Peri-extubation settings in preterm neonates: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/38216677>

Evaluation of lung volumes and gas exchange in surfactant-deficient rabbits between variable and fixed servo pressures during high-frequency jet ventilation

<https://www.ncbi.nlm.nih.gov/pubmed/38007593>

Lung ultrasound score as a tool to predict severity of bronchopulmonary dysplasia in neonates born  $\leq 25$  weeks of gestational age

<https://www.ncbi.nlm.nih.gov/pubmed/38087005>

Multi-dose enteral L-citrulline administration in premature infants at risk of developing pulmonary hypertension associated with bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/37907796>

The effect of bethanechol on tracheobronchomalacia in preterm infants with bronchopulmonary dysplasia: a retrospective cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/37848605>

Association of the respiratory severity score with bronchopulmonary dysplasia-associated pulmonary hypertension in infants born extremely preterm

<https://www.ncbi.nlm.nih.gov/pubmed/37853090>

Does faster weight trajectory lead to improved neurodevelopmental outcomes in ELBW infants with bronchopulmonary dysplasia?

<https://www.ncbi.nlm.nih.gov/pubmed/37898685>

Transpyloric feeding is associated with adverse in-hospital outcomes in infants with severe bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38218908>

Use of an airway bundle to reduce unplanned extubations in a neonatal intensive care unit

<https://www.ncbi.nlm.nih.gov/pubmed/38242961>

## **Neonatology**

Diagnostic accuracy of urinary n terminal pro-b type natriuretic peptides for hemodynamically significant-patent ductus arteriosus in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/37899032>

Early versus late caffeine therapy administration in preterm neonates: an updated systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/37989113>

External validation of a multivariate model for targeted surfactant replacement

<https://www.ncbi.nlm.nih.gov/pubmed/37883936>

Neuro-specific and immuno-inflammatory biomarkers in umbilical cord blood in neonatal hypoxic-ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/37778335>

Hospital variation in mortality and failure to rescue after surgery for high-risk neonatal diagnoses

<https://www.ncbi.nlm.nih.gov/pubmed/37844560>

Parental experiences of neonatal care: a nationwide study on determinants of excellence

<https://www.ncbi.nlm.nih.gov/pubmed/37844545>

Enhanced category-based risk assessment for neonatal early-onset sepsis: a prospective observational study

<https://www.ncbi.nlm.nih.gov/pubmed/37906986>

Long-term neurodevelopmental impairment among very preterm infants with sepsis, meningitis, and intraventricular hemorrhage

<https://www.ncbi.nlm.nih.gov/pubmed/37866353>



Outcomes at 18–24 months of infants with birth weight under 500 g born in Korea during 2013–2017: a nationwide cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/37866355>

Clinical features, diagnosis, and treatment of congenital and neonatal tuberculosis: a retrospective study

<https://www.ncbi.nlm.nih.gov/pubmed/38011837>

Associations of high-sensitive cardiac troponin t in healthy newborns and prolonged second stage of labor, neonatal and maternal factors: a prospective study

<https://www.ncbi.nlm.nih.gov/pubmed/38016439>

Magnetic resonance imaging-based reference values for two-dimensional quantitative brain metrics in a cohort of extremely preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/37866350>

Aortic steal correlates with acute organ dysfunction and short-term outcomes in neonates with vein of galen malformation

<https://www.ncbi.nlm.nih.gov/pubmed/37906988>

Neonatal respiratory support utilization in low- and middle-income countries: a registry-based observational study

<https://www.ncbi.nlm.nih.gov/pubmed/38048757>

Risk factors for neurodevelopmental impairment at 2- and 5-years corrected age in preterm infants with established bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/37852207>

Acinar dysplasia in a full-term newborn with a nkx2.1 variant

<https://www.ncbi.nlm.nih.gov/pubmed/37852207>

### **American Journal of Perinatology**

Diagnostic role of systemic inflammatory indices in infants with moderate-to-severe hypoxic ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/34666380/>

High-frequency positive pressure ventilation as primary rescue strategy for patients with congenital diaphragmatic hernia: a comparison to high-frequency oscillatory ventilation

<https://pubmed.ncbi.nlm.nih.gov/34918327/>

Comparison of perinatal outcomes between patients with suspected complex and simple gastroschisis

<https://pubmed.ncbi.nlm.nih.gov/34666388/>

Complement activation fragments in cervicovaginal fluid are associated with intra-amniotic infection/inflammation and spontaneous preterm birth in women with preterm premature rupture of membranes

<https://pubmed.ncbi.nlm.nih.gov/34666383/>

Neonatal therapy staffing in the united states and relationships to neonatal intensive care unit type and location, level of acuity, and population factors

<https://pubmed.ncbi.nlm.nih.gov/34695863/>

Improving consistency and accuracy of neonatal amplitude-integrated electroencephalography

<https://pubmed.ncbi.nlm.nih.gov/34695864/>

Early diagnosis of prediabetes among pregnant women that develop gestational diabetes mellitus and its influence on perinatal outcomes

<https://pubmed.ncbi.nlm.nih.gov/34710943/>

Enhancing interpretation of one-time body composition measurement at near-term gestation in preterm infants: an exploratory study

<https://pubmed.ncbi.nlm.nih.gov/35973800/>

### **Journal of Neonatal-Perinatal Medicine**

No new content

### **Maternal Health, Neonatology and Perinatology**

Dietary supplement use among lactating mothers following different dietary patterns – an online survey  
<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-023-00171-3.pdf>

Association between social relationship of mentors and depressive symptoms in first-time mothers during the transition from pregnancy to 6-months postpartum  
<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-024-00175-7.pdf>

Evaluating mean platelet volume and platelet distribution width as predictors of early-onset pre-eclampsia: a prospective cohort study  
<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-024-00174-8.pdf>

Examination of risk factors for high Edinburgh postnatal depression scale scores: a retrospective study at a single university hospital in Japan  
<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-024-00176-6.pdf>

### **Neoreviews**

Potential neurologic manifestations of COVID-19 infection in neonates  
<https://pubmed.ncbi.nlm.nih.gov/38296786>

Congenital anomalies of the kidneys and urinary tract  
<https://pubmed.ncbi.nlm.nih.gov/38296785>

Nephrocalcinosis in neonates  
<https://pubmed.ncbi.nlm.nih.gov/38296790>

Renal tubular acidosis in the neonate  
<https://pubmed.ncbi.nlm.nih.gov/38296789>

Lactic acidosis in a neonate with ventriculomegaly and hypoplasia of the corpus callosum  
<https://pubmed.ncbi.nlm.nih.gov/38296788>

A preterm infant with pneumoperitoneum  
<https://pubmed.ncbi.nlm.nih.gov/38296792>

One bone in two pieces: does it have to be a fracture?  
<https://pubmed.ncbi.nlm.nih.gov/38296787>

Elevation of maternal serum  $\alpha$ -fetoprotein: implications for the neonate  
<https://pubmed.ncbi.nlm.nih.gov/38296791>

A 3-day-old neonate with generalized edema and a bullous rash  
<https://pubmed.ncbi.nlm.nih.gov/38296793>

### **JAMA Pediatrics**

Lack of effect for oropharyngeal surfactant for preterm neonates—method or timing?  
<https://pubmed.ncbi.nlm.nih.gov/38079155/>

Two-year autism risk screening and 3-year developmental outcomes in very preterm infants  
<https://pubmed.ncbi.nlm.nih.gov/38147347/>

Maternal vaccine effectiveness against influenza-associated hospitalizations and emergency department visits in infants  
<https://pubmed.ncbi.nlm.nih.gov/38109102/>

### **BMC Pediatrics**

Risk factors of multidrug-resistant organisms neonatal sepsis in Surabaya tertiary referral hospital: a single-center study  
<https://pubmed.ncbi.nlm.nih.gov/38424519/>

The impact of blood lactic acid levels on retinopathy of prematurity morbidity  
<https://pubmed.ncbi.nlm.nih.gov/38424517/>

Factors influencing necrotizing enterocolitis in premature infants in China: a systematic review and meta-analysis  
<https://pubmed.ncbi.nlm.nih.gov/38418993/>

Risk factor analysis and nomogram prediction model construction for NEC complicated by intestinal perforation  
<https://pubmed.ncbi.nlm.nih.gov/38413889/>

Magnitude of neonatal asphyxia and its predictors among newborns at public hospitals of Wolaita Zone in Southern Ethiopia, 2023

<https://pubmed.ncbi.nlm.nih.gov/38413908/>

Rare complication – skin atrophy – after systemic conservative therapy of infantile hemangioma

<https://pubmed.ncbi.nlm.nih.gov/38395819/>

The association between sex and neonatal respiratory distress syndrome

<https://pubmed.ncbi.nlm.nih.gov/38373935/>

### **Pediatric Critical Care Medicine**

No relevant articles

### **New England Journal of Medicine**

No new articles

### **Lancet**

No new articles

### **JAMA**

Neurodevelopmental outcomes of extremely preterm infants fed donor milk or preterm infant formula a randomized clinical trial

<https://jamanetwork.com/journals/jama/fullarticle/2814657>

### **JAMA Pediatrics**

Prophylactic oropharyngeal surfactant for preterm newborns at birth - a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/38079168/>

### **BMJ**

No new articles

### **Pediatric Infectious Disease Journal**

Experience with a vancomycin-sparing empiric antibiotic guideline for late-onset sepsis in a level-4 neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/38108378/>

### **Pediatric Cardiology**

Postoperative morbidity and interstage hemodynamics following stage i palliation in patients with turner syndrome and hypoplastic left heart syndrome

<https://pubmed.ncbi.nlm.nih.gov/38153546/>

The neonatal QRS complex and its association with left ventricular mass

<https://pubmed.ncbi.nlm.nih.gov/38151605/>

Neonatal outcomes of critical congenital heart defects: a multicenter epidemiological study of Turkish neonatal society

<https://pubmed.ncbi.nlm.nih.gov/38153547/>

The association of gestational age and size with management strategies and outcomes in symptomatic neonatal tetralogy of fallot

<https://pubmed.ncbi.nlm.nih.gov/38167967/>

Applying the hybrid concept as a bridge to transplantation in infants without hypoplastic left heart syndrome

<https://pubmed.ncbi.nlm.nih.gov/37707592/>

Intracardiac three-dimensional image as surgical decision-making tool of congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/38017199/>

Persistent left superior vena cava with and without right superior vena cava: significance of prenatal diagnosis

<https://pubmed.ncbi.nlm.nih.gov/38103069/>

The impact of nasal intubation on feeding outcomes in neonates requiring cardiac surgery: a randomized control trial

<https://pubmed.ncbi.nlm.nih.gov/37853163/>

Lower socioeconomic status is associated with an increased incidence and spectrum of major congenital heart disease and associated extracardiac pathology

<https://pubmed.ncbi.nlm.nih.gov/37870603/>

Tricuspid atresia with absent pulmonary valve with nearly discontinuous branch pulmonary arteries

<https://pubmed.ncbi.nlm.nih.gov/37955720/>

### **Pediatric Neurology**

Disruption of cerebellar granular layer as a consequence of germinal matrix intraventricular hemorrhage in extreme prematurity: an acute direct mechanism too?

<https://pubmed.ncbi.nlm.nih.gov/38176224/>

Resting-state functional magnetic resonance imaging network association with mortality, epilepsy, cognition, and motor two-year outcomes in suspected severe neonatal acute brain injury

<https://pubmed.ncbi.nlm.nih.gov/38198979/>

Impact of a national follow-up program on the age at diagnosis for cerebral palsy

<https://pubmed.ncbi.nlm.nih.gov/38211417/>

Frequency of cerebellar abnormalities associated with the differing magnetic resonance imaging patterns of term hypoxic-ischemic injury in children

<https://pubmed.ncbi.nlm.nih.gov/38232653/>

Ferritin as an effective predictor of neurological outcomes in children with acute necrotizing encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/38295717/>

Evaluating the safety and efficacy of erythropoietin therapy for neonatal hypoxic-ischemic encephalopathy: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/38171084/>

### **Obstetrics and Gynecology**

No new articles

### **American Journal of Obstetrics & Gynecology**

No relevant articles

### **Hospital Pediatrics**

Care models and discharge services for children with medical complexity

<https://pubmed.ncbi.nlm.nih.gov/38196385/>

### **BASIC SCIENCE SELECTIONS**

Implication of m6A methylation regulators in the immune microenvironment of bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38393623>

Circulating microvesicles miR139-3p from bronchopulmonary dysplasia aggravates pulmonary vascular simplification by targeting 4E binding protein 1

<https://www.ncbi.nlm.nih.gov/pubmed/38388205>

Lysine demethylase KDM3A alleviates hyperoxia-induced bronchopulmonary dysplasia in mice by promoting ETS1 expression

<https://www.ncbi.nlm.nih.gov/pubmed/38286256>

Cellular senescence contributes to the progression of hyperoxic bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/37874230>

Oral administration of bone marrow-derived mesenchymal stem cells attenuates

intestinal injury in necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/38369803>

Melatonin alleviates necrotizing enterocolitis by reducing bile acid levels through the SIRT1/FXR signalling axis

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

NLRP3 activation in macrophages promotes acute intestinal injury in neonatal necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/37389784>

Hyperpolarized (13) C magnetic resonance imaging in neonatal hypoxic-ischemic encephalopathy: First investigations in a large animal model

<https://www.ncbi.nlm.nih.gov/pubmed/38317333>

IL1R2 promotes retinal angiogenesis to participate in retinopathy of prematurity by activating the HIF1alpha/PFKFB3 pathway

<https://www.ncbi.nlm.nih.gov/pubmed/38097102>

Aquaporin 4 mediates the effect of iron overload on hydrocephalus after intraventricular hemorrhage

<https://www.ncbi.nlm.nih.gov/pubmed/37208490>

### **ADDITIONAL JOURNAL SELECTIONS**

Correlation between early postnatal body weight changes and lung ultrasound scores as predictors of bronchopulmonary dysplasia in preterm infants: A secondary analysis of a prospective study

<https://www.ncbi.nlm.nih.gov/pubmed/38363393>

Family integrated care shortens the duration of home oxygen therapy in infants with bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38113903>

Respiratory culture growth and 3-years lung health outcomes in children with bronchopulmonary dysplasia and tracheostomies

<https://www.ncbi.nlm.nih.gov/pubmed/37937895>

Acute kidney injury in neonates with hypoxic ischemic encephalopathy based on serum creatinine decline compared to KDIGO criteria

<https://www.ncbi.nlm.nih.gov/pubmed/38326648>

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

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

Use of hand-held optical coherence tomography during retinopathy of prematurity screening demonstrates an increased outer retina from early postmenstrual age in preterm infants with retinopathy of prematurity

<https://www.ncbi.nlm.nih.gov/pubmed/37824817>

Creation of a rating scale to teach Less Invasive Surfactant Administration (LISA) in simulation

<https://www.ncbi.nlm.nih.gov/pubmed/38355497>

Valganciclovir in infants with hearing loss and clinically inapparent congenital cytomegalovirus infection: a nonrandomized controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/38336204>

The effect of valganciclovir on secondary prevention of congenital cytomegalovirus infection, following primary maternal infection acquired periconceptionally or in the first trimester of pregnancy. An individual patient data meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/37473793>