

#### **Publications Working Group**

[Ayan Rajgarhia](#), Page Editor - Children's Hospital of Orange County  
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Vineet Lamba - University of Tennessee Health Science Center  
Zeyar Htun - NYC Long Island School of Medicine  
L. Corbin Downey - Atrium Health Wake Forest Baptist

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Section on Neonatal-Perinatal Medicine

### **ARTICLES OF INTEREST – July 2024**

#### [The landscape of resource utilization after resuscitation of 22-, 23-, and 24-weeks' gestation infants](#)

Cassandra C Daisy, Camille Fonseca, Allison Schuh, et al. *J Pediatr*.

In this multicenter, retrospective cohort study the authors sought to compare estimated healthcare resources needed to care for 22 through 24 weeks' gestation infants. The study included 1505 live in-born and out-born infants 22 through 24 weeks' gestational age at delivery from 6 pediatric tertiary care hospitals from 2011 through 2020. Median NICU length of stay for each gestational age was used as a proxy for hospital resource utilization, and the number of comorbidities and medical technology use for each infant were used as estimates of future medical care needs. The authors found that compared with 23- and 24-week infants, 22-week infants did not use a disproportionate amount of hospital resources. Twenty-two-week infants should not be excluded from resuscitation based on concern for increased hospital care and medical technology requirements. As overall resuscitation efforts and survival rates increase for 22-week infants, future research will be needed to assess the evolution of these results.

#### [Neonatal outcomes since the implementation of no routine endotracheal suctioning of meconium-stained nonvigorous neonates](#)

Mehwish Sheikh, Vishakha Nanda, Rajeev Kumar, et al. *Am J Perinatol*.

In this single-center retrospective cohort study the authors aimed to evaluate the effect of the 2015 Neonatal Resuscitation Program recommendations of no routine endotracheal suctioning for meconium-stained nonvigorous neonates on the incidence of meconium aspiration syndrome (MAS) and death. Nonvigorous neonates born at gestational age > 37 weeks were divided into period 1, n = 95 (before the new guidelines) and prospective period 2, n = 91 (after the new guidelines). Primary outcomes included MAS and death while secondary outcomes included respiratory NICU admission, length of NICU stay, and feeding difficulties. The authors found that nonvigorous neonates born through MSAF who did not undergo ET suctioning soon after birth did not have increased incidence of MAS or death but had increased NICU respiratory admissions. A large multi-center RCT may give more clear verdict on the outcomes of these newborns.

### [Early bubble CPAP protocol implementation and rates of death or severe BPD](#)

Gabriela de Carvalho Nunes, Caio Barbosa de Oliveira, Marco Zeid, et al. *Pediatrics*.

This study included infants with gestational age <32 weeks and birth weight <1250 g who were treated with bubble CPAP as the primary respiratory support in the delivery room+NICU and compared them to infants pre-implementation. Infants were categorized into 4 periods, including pre-implementation (P0: 2012-2014 (n=90)), and post-implementation (P1: 2014-2016 (n=91), P2: 2016-2018 (n=128), P3: 2018-2020 (n=131)). The authors found that more infants were free of BPD ( $P < .001$ ), and the rates of death and severe BPD decreased significantly: P1 = OR 1.21 (95% confidence interval [CI] 0.56-2.67), P2 = OR 0.45 (95% CI 0.20-0.99), and P3 = OR 0.37 (95% CI 0.15-0.84). Delivery room intubation decreased from 66% (P0) to 24% (P3) in the entire cohort ( $P < .001$ ) and from 96% (P0) to 40% (P3) in infants <26 weeks of age ( $P < .001$ ). While the need for NICU intubation was similar ( $P = .98$ ), there was a significant decrease in the need for surfactant ( $P = .001$ ), which occurred at higher FiO<sub>2</sub> (P0 = 0.35 vs P3 = 0.55,  $P < .001$ ).

### [Neonatal opioid withdrawal syndrome treatment guidelines and birth hospital utilization](#)

Phillip D Hahn, Dionne A Graham, Al Ozonoff, et al. *Pediatrics*.

This study examined birth hospitalization data for newborns diagnosed with neonatal opioid withdrawal syndrome (NOWS) who discharged from 2019 to 2022 from the Pediatric Health Information System, before and after the time of the November 2020 release of the AAP guidelines for NOWS management (recommending nonpharmacologic treatment as the first-line approach). The authors included 824 newborns with NOWS from 11 hospitals (n = 434 pre, n = 390 post). The use of pharmacologic treatment was significantly lower in the postguidelines period (59.0% pre versus 50.3% post;  $P = .01$ ). Median length of stay was similar pre and post ( $P = .55$ ). NICU admission was significantly lower in the postguidelines period (78.6% pre versus 46.7% post;  $P < .001$ ). After the guidelines were released, the majority of hospitals were able to reduce pharmacologic treatment (8 of 11; 73%) and NICU use (10 of 11; 91%).

### [Transplantation of alveolar macrophages improves the efficacy of endothelial progenitor cell therapy in mouse model of bronchopulmonary dysplasia](#)

Afzaal Nadeem Mohammed, Fatemeh Kohram, Ying-Wei Lan, et al. *Am J Physiol Lung Cell Mol Physiol*.

Published studies demonstrated that the number of endothelial progenitor cells (EPC) is decreased in mouse and human BPD lungs and that adoptive transfer of EPC is an effective approach in reversing the hyperoxia-induced lung damage in mouse model of BPD. Several studies reported the successful application of macrophage therapy in accelerating the regenerative capacity of damaged tissues and enhancing the therapeutic efficacy of other transplantable progenitor cells. In the present study, the authors explored the efficacy of combined cell therapy with EPC and resident alveolar macrophages (rAM) in hyperoxia-induced BPD mouse model. Adoptive transfer of rAM in combination with EPC enhanced the therapeutic efficacy of EPC as evidenced by increased retention of EPC, increased capillary density, improved arterial oxygenation, and alveolarization in hyperoxia-injured lungs. Dual therapy with EPC and rAM has promise in human BPD.

[Cell-permeable JNK-inhibitory peptide regulates intestinal barrier function and inflammation to ameliorate necrotizing enterocolitis](#)

Chaozhi Bu, Mengyuan Hu, Yinglin Su, et al. *J Cell Mol Med*.

Treatment with JNK-inhibitory peptide (CPJIP) led to a notable reduction in p-JNK expression in IEC-6 cells and NEC mice. Following LPS stimulation, the expression of RNA and protein of claudin-1, claudin-3, claudin-4 and occludin was significantly decreased, with this decrease being reversed by CPJIP administration, except for claudin-3, which remained consistent in NEC mice. Moreover, the expression levels of the inflammatory factors TNF- $\alpha$ , IL-1 $\beta$  and IL-6 were markedly elevated, a phenomenon that was effectively mitigated by the addition of CPJIP in both IEC-6 cells and NEC mice. CPJIP administration resulted in improved survival rates, ameliorated microscopic intestinal mucosal injury, and increased the total length of the intestines and colon in NEC mice. Furthermore, our results revealed that CPJIP effectively inhibited intestinal cell apoptosis and promoted cell proliferation in the intestine. This study represents the first documentation of CPJIP's ability to enhance the expression of tight junction components, suppress inflammatory responses, and rescue intestinal cell fate by inhibiting JNK activation, ultimately mitigating intestinal severity.

[Prevalence of bradycardia in 4876 newborns in the first minute after birth and association with positive pressure ventilation: a population-based cross-sectional study](#)

Siren Rettedal, Amalie Kibsgaard, Jan Terje Kvaløy, et al. *Arch Dis Child Fetal Neonatal Ed*.

This population-based cross-sectional study was conducted on 4876 newborns  $\geq 28$  weeks' gestation with the primary objective to determine the prevalence of bradycardia in the first minute after birth and association with positive pressure ventilation (PPV). Heart rate (HR) was captured immediately after birth and continuously for the first minute(s). Time of birth was registered on a tablet. Provision of PPV was captured using video. Of 4876 included newborns, 164 (3.4%) did not breathe (two-thirds) or breathed ineffectively (one-third) and received PPV at birth. The prevalence of first measured HR  $< 100$  and  $< 60$  beats/minute at median 16 s was 16.3% and 0.6%, respectively. HR increased in most cases. At 60 s, 3.7% had HR  $< 100$  beats/minute, of which 82% did not require PPV. In total, 25% of newborns had some registered HR  $\geq 100$  beats/minute during the first minute, of which 95% did not require PPV. This study suggests that bradycardia with HR  $< 100$  bpm in the first minute of life is frequent, but mostly self-resolved.

[Higher fluid and lower caloric intakes: associated risk of severe bronchopulmonary dysplasia in ELBW infants](#)

Danielle Kolitz, Lynn Przystac, Richard Tucker, et al. *J Perinatol*.

This case-control study uses multiple logistic regression analysis with generalized estimating equations (GEE) to adjust for matching to examine nutritional intake profiles and growth trajectories of extremely low birth weight (ELBW) infants who develop severe bronchopulmonary dysplasia (BPD). The study cohort consisted of 224 infants: 120 who developed severe BPD and 104 infants who did not develop severe BPD. Cumulative and mean fluid intakes were higher ( $p = 0.003$ ) and caloric intakes lower ( $p < 0.0001$ ) through week two in infants who developed severe BPD ( $n = 120$ ) versus those without severe BPD ( $n = 104$ ). Mean caloric intake through week 12 was lower in infants who developed severe BPD ( $102 \pm 10.1$  vs.  $107 \pm 8.5$  kcal/kg/day,  $p < 0.0001$ ). Lower mean caloric intake through week 12 was associated with increased risk of developing severe BPD. Linear growth reduced the odds of BPD by  $\sim 30\%$

for each Z-score point.

## **OTHER NOTEWORTHY PUBLICATIONS – July 2024**

### Pediatrics

Neonatal opioid withdrawal syndrome treatment guidelines and birth hospital utilization

<https://pubmed.ncbi.nlm.nih.gov/38899388>

Hospital quality indicators for opioid-exposed infants: results from an expert consensus panel

<https://pubmed.ncbi.nlm.nih.gov/38853654>

Management of pustules and vesicles in afebrile infants ≤60 days evaluated by dermatology

<https://pubmed.ncbi.nlm.nih.gov/38910522>

Early bubble CPAP protocol implementation and rates of death or severe BPD

<https://pubmed.ncbi.nlm.nih.gov/38887808>

Potentially better practices for follow through in neonatal intensive care units

<https://pubmed.ncbi.nlm.nih.gov/38872618>

Factors associated with perinatal hepatitis C screening among exposed children: 2016–2020

<https://pubmed.ncbi.nlm.nih.gov/38867693>

Acute kidney injury in neonates: a meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/38872621>

Maternal vitamin D supplementation and infantile rickets: secondary analysis of a randomized trial

<https://pubmed.ncbi.nlm.nih.gov/38726565>

Autism spectrum disorder diagnoses and congenital cytomegalovirus

<https://pubmed.ncbi.nlm.nih.gov/38808409>

Enhancing NICU care and communication: perspectives of moderately preterm infant parents

<https://pubmed.ncbi.nlm.nih.gov/38716568>

Neonatal and obstetrical outcomes of pregnancies complicated by alloimmunization

<https://pubmed.ncbi.nlm.nih.gov/38784990>

Core outcome set for necrotizing enterocolitis treatment trials

<https://pubmed.ncbi.nlm.nih.gov/38726575>

Antimicrobial stewardship programs in neonates: a meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/38766702>

Reducing NICU unplanned extubations from tube dislodgement

<https://pubmed.ncbi.nlm.nih.gov/38770574>

### Journal of Pediatrics

Propofol washout of neurosedatives in critically ill neonates

<https://doi.org/10.1016/j.jpeds.2024.114115>

Evolving concepts in care for congenital cytomegalovirus (cCMV) infection: better outcomes for more babies!

<https://pubmed.ncbi.nlm.nih.gov/38575056/>

Challenges and opportunities in high-risk infant follow-up: progress from the 2022 networking session at the pediatric academic societies

<https://pubmed.ncbi.nlm.nih.gov/38479638/>

The future of neonatal cerebral oxygenation monitoring: directions after the SafeBoosC-III trial

<https://pubmed.ncbi.nlm.nih.gov/38492916/>

The combined contributions of newborn stress and parenting stress on toddler language development <https://pubmed.ncbi.nlm.nih.gov/38460711/>

Proteomics-based mapping of bronchopulmonary dysplasia-associated changes in noninvasively accessible oral secretions

<https://pubmed.ncbi.nlm.nih.gov/37839510/>

Readmission after neonatal intensive care unit discharge: the importance of social drivers of health

<https://pubmed.ncbi.nlm.nih.gov/38494087/>

Growth trajectories over the first year of life among early-treated infants with human immunodeficiency virus and infants who are human immunodeficiency virus-exposed uninfected

<https://pubmed.ncbi.nlm.nih.gov/38508485/>

Use of latent class analysis to predict intensive care unit admission and mortality in children with a major congenital anomaly

<https://pubmed.ncbi.nlm.nih.gov/38494089/>

Predictors of invasive bacterial infection in febrile infants aged 2 to 6 months in the emergency department

<https://pubmed.ncbi.nlm.nih.gov/38508484/>

Successful and rapid reduction in neurosedative and analgesic medications in complex infants with severe bronchopulmonary dysplasia after tracheostomy placement: experience with 24-hour propofol infusions

<https://pubmed.ncbi.nlm.nih.gov/38554746/>

### Pediatric Research

Record, reflect and refine: using video review as an initiative to improve neonatal care

<https://pubmed.ncbi.nlm.nih.gov/38356026/>

Unveiling the impact of maternal gestational diabetes mellitus on cord blood CD71+ erythroid cell transcriptome

<https://pubmed.ncbi.nlm.nih.gov/38519796/>

The effect of vibrotactile stimulation on hypoxia-induced irregular breathing and apnea in preterm rabbits

<https://pubmed.ncbi.nlm.nih.gov/38356025/>

Comparison of positive pressure ventilation devices during compliance changes in a neonatal ovine model

<https://pubmed.ncbi.nlm.nih.gov/38218928/>

Tetralogy of Fallot: variants of MYH6 gene promoter and cellular functional analyses

<https://pubmed.ncbi.nlm.nih.gov/38135727/>

Arginine-NO metabolites are associated with morbidity in single ventricle infants undergoing stage 2 palliation

<https://pubmed.ncbi.nlm.nih.gov/38565916/>

Associations between human milk oligosaccharides and infant growth in a Bangladeshi mother-infant cohort

<https://pubmed.ncbi.nlm.nih.gov/38052861/>

Sample entropy correlates with intraventricular hemorrhage and mortality in premature infants early in life

<https://pubmed.ncbi.nlm.nih.gov/38365874/>

Growth and micronutrient status parameters of Nigerian preterm infants consuming preterm formula or breastmilk

<https://pubmed.ncbi.nlm.nih.gov/38195937/>

Postnatal acetaminophen exposure and neurodevelopmental outcomes at 18–21 months corrected gestational age in preterm infants <29 weeks gestation: a retrospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/38057580/>

New insights and potential biomarkers for intraventricular hemorrhage in extremely premature infant, case-control study

<https://pubmed.ncbi.nlm.nih.gov/38467704/>

An exploratory study of clinical factors associated with IGF-1 and IGFBP-3 in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/38191823/>

Corpus callosum long-term biometry in very preterm children related to cognitive and motor outcomes

<https://pubmed.ncbi.nlm.nih.gov/38225451/>

Detection and quantitative analysis of patient-ventilator interactions in ventilated infants by deep learning networks

<https://pubmed.ncbi.nlm.nih.gov/38316942/>

Falls in oxygen saturations accompany electrographic seizures in term neonates: an observational study

<https://pubmed.ncbi.nlm.nih.gov/38365870/>

Postnatal growth and neurodevelopment at 2 years' corrected age in extremely low birthweight infants

<https://pubmed.ncbi.nlm.nih.gov/38337041/>

Early developmental trajectory of children with prenatal alcohol and opioid exposure

<https://pubmed.ncbi.nlm.nih.gov/35948606/>

Overexpression of miR-22-3p and miR-29c-3p in CFU-Hill colonies is related to senescence process among children with low birth weight

<https://pubmed.ncbi.nlm.nih.gov/38499628/>

Wearable fiber-free optical sensor for continuous monitoring of neonatal cerebral blood flow and oxygenation

<https://pubmed.ncbi.nlm.nih.gov/38503982/>

Epigenetic associations in HPA axis genes related to bronchopulmonary dysplasia and antenatal steroids

<https://pubmed.ncbi.nlm.nih.gov/38480856/>

Impact of trajectories of maternal postpartum depression on infants' socioemotional development

<https://pubmed.ncbi.nlm.nih.gov/37337109/>

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

Prevalence of bradycardia in 4876 newborns in the first minute after birth and association with positive pressure ventilation: a population-based cross-sectional study

<https://www.ncbi.nlm.nih.gov/pubmed/37940377>

Early and exclusive enteral nutrition in infants born very preterm

<https://www.ncbi.nlm.nih.gov/pubmed/38135494>

Fetal single ventricle journey to first postnatal procedure: a multicentre UK cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/38123956>

Randomised crossover study on pulse oximeter readings from different sensors in very preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/38129130>

Non-invasive high-frequency oscillatory ventilation (NHFOV) versus nasal continuous positive airway pressure (NCPAP) for preterm infants: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/38228382>

Assessing the influence of abdominal compression on time to return of circulation during resuscitation of asphyxiated newborn lambs: a randomised preclinical study

<https://www.ncbi.nlm.nih.gov/pubmed/38123977>

Prevalence and early surgical outcome of congenital diaphragmatic hernia in the Netherlands: a population-based cohort study from the European Pediatric Surgical Audit

<https://www.ncbi.nlm.nih.gov/pubmed/38195217>

Dextrose gel prophylaxis for neonatal hypoglycaemia and neurocognitive function at early school age: a randomised dosage trial

<https://www.ncbi.nlm.nih.gov/pubmed/38307710>

Sustained inflation and chest compression versus 3:1 chest compression to ventilation ratio during cardiopulmonary resuscitation of asphyxiated newborns (SURV1VE): A cluster randomised controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/38212104>

Parent-reported health outcomes at preschool age in preterm survivors: a population-based cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/38135493>

Doxapram for apnoea of prematurity and neurodevelopmental outcomes at age 5–6 years

<https://www.ncbi.nlm.nih.gov/pubmed/38228381>

Continuous non-invasive measurement of cardiac output in neonatal intensive care using regional impedance cardiography: a prospective observational study

<https://www.ncbi.nlm.nih.gov/pubmed/38123965>

### Journal of Perinatology

The relationship between severe hypertensive diseases of pregnancy and moderate-severe bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38431755>

Higher fluid and lower caloric intakes: associated risk of severe bronchopulmonary dysplasia in ELBW infants

<https://www.ncbi.nlm.nih.gov/pubmed/38459372>

Prophylactic early low-dose hydrocortisone and survival without bronchopulmonary dysplasia among extremely preterm infants born at 22–27 weeks' gestation

<https://www.ncbi.nlm.nih.gov/pubmed/38459373>

Prescribing practices of inhaled corticosteroids for premature infants in the neonatal intensive care unit

<https://www.ncbi.nlm.nih.gov/pubmed/38297180>

In-hospital mortality and length of hospital stay in infants requiring tracheostomy with bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38066226>

Evaluating caregiver-clinician communication for tracheostomy placement in the neonatal intensive care unit: a qualitative inquiry

<https://www.ncbi.nlm.nih.gov/pubmed/37833495>

Identifying barriers and facilitators to care for infants with bronchopulmonary dysplasia after NICU discharge: a prospective study of parents and clinical stakeholders

<https://www.ncbi.nlm.nih.gov/pubmed/38278963>

The impact of early tracheostomy on neurodevelopmental outcomes of infants with severe bronchopulmonary dysplasia exposed to postnatal corticosteroids

<https://www.ncbi.nlm.nih.gov/pubmed/38158399>

Assessing the role of tracheostomy placement in bronchopulmonary dysplasia with pulmonary hypertension

<https://www.ncbi.nlm.nih.gov/pubmed/38316933>

Managing established bronchopulmonary dysplasia without using routine blood gas measurements

<https://www.ncbi.nlm.nih.gov/pubmed/38654082>

Measuring practice preference variation for quality improvement in neonatal respiratory care

<https://www.ncbi.nlm.nih.gov/pubmed/38589537>

Late preterm antenatal steroid use and infant outcomes in a single center

<https://www.ncbi.nlm.nih.gov/pubmed/38499754>

The effect of family integrated care on preparing parents with premature infants hospitalized in the neonatal intensive care unit for discharge

<https://www.ncbi.nlm.nih.gov/pubmed/38499753>

Does Bisphenol-A play a role in the development of neural tube defects?

<https://www.ncbi.nlm.nih.gov/pubmed/38499756>

Glucose-6-phosphate dehydrogenase deficiency and neonatal indirect hyperbilirubinemia: a retrospective cohort study among 40,305 consecutively born babies

<https://www.ncbi.nlm.nih.gov/pubmed/38480787>

Clinical and economic impacts of a modified-observational screening approach to well-appearing infants born to mothers with chorioamnionitis

<https://www.ncbi.nlm.nih.gov/pubmed/38155229>

Social distancing and extremely preterm births in the initial COVID-19 pandemic period

<https://www.ncbi.nlm.nih.gov/pubmed/38388715>

Neonatology

No July Issue

American Journal of Perinatology

Neonatal outcomes are similar between patients with resolved and those with persistent oligohydramnios

<https://pubmed.ncbi.nlm.nih.gov/38423121/>

Clinical outcome of monochorionic diamniotic twins with intrauterine growth restriction

<https://pubmed.ncbi.nlm.nih.gov/38154467/>

Comparison of breastfeeding success by mode of delivery

<https://pubmed.ncbi.nlm.nih.gov/35863374/>

Fetal echocardiographic findings to predict early surgical repair and neonatal outcomes in fetuses with isolated coarctation of the aorta

<https://pubmed.ncbi.nlm.nih.gov/35858644/>

Clinical correlates of moderate-to-severe bronchopulmonary dysplasia in preterm infants following surgical necrotizing enterocolitis

<https://pubmed.ncbi.nlm.nih.gov/35858647/>

A dose-limited dexamethasone and bubble continuous positive airway pressure in ventilation-dependent extremely premature infants

<https://pubmed.ncbi.nlm.nih.gov/35981559/>

Neonatal outcomes since the implementation of no routine endotracheal suctioning of meconium-stained nonvigorous neonates

<https://pubmed.ncbi.nlm.nih.gov/36170887/>

Newborn weight loss tool and readmission for hyperbilirubinemia

<https://pubmed.ncbi.nlm.nih.gov/36580979/>

Risk factors for mortality or major morbidities of very preterm infants: a study from Thailand

<https://pubmed.ncbi.nlm.nih.gov/36669757/>

Correlation of polymorphonuclear cell burden and microbial growth to the inflammatory cytokines in tracheal aspirates from ventilated preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36773600/>

Risk factors for postpartum depression and severe distress among mothers of very preterm infants at NICU discharge

<https://pubmed.ncbi.nlm.nih.gov/37072014/>

Relationship between ventricular size on latest ultrasonogram and the Bayley scores  $\geq$  18 months in extremely low gestational age neonates: a retrospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/36933551/>

Withdrawing assisted nutrition in neonates: a survey on attitudes and insights in Argentina

<https://pubmed.ncbi.nlm.nih.gov/37003254/>

Comparing intubation rates in the delivery room by interface

<https://pubmed.ncbi.nlm.nih.gov/37257487/>

Reference ranges and development patterns of fetal myocardial function using speckle tracking echocardiography in healthy fetuses at 17 to 24 weeks of gestation

<https://pubmed.ncbi.nlm.nih.gov/37164318/>

Prenatal weight change trajectories and perinatal outcomes among twin gestations

<https://pubmed.ncbi.nlm.nih.gov/37164320/>

#### Journal of Neonatal-Perinatal Medicine

Comparison of prognosis between hyperbilirubinemic infants with and without hypernatremia

<https://pubmed.ncbi.nlm.nih.gov/38759028/>

Evaluation of systemic inflammatory indices in the diagnosis of early onset neonatal sepsis in very low birth weight infants

<https://pubmed.ncbi.nlm.nih.gov/38607767/>

Hyperbilirubinemia screening and treatment in neonates born prior to 35 weeks of gestation

<https://pubmed.ncbi.nlm.nih.gov/38427505/>

Implications of maternal vitamin D administration for the neonatal respiratory distress syndrome: a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/38759029/>

Association of hypermagnesemia at birth and admission hypothermia in pre-term infants: a secondary analysis of a prospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/38607766/>

A quality improvement strategy to reduce unintended extubation in the very low birth weight infant: a case report

<https://pubmed.ncbi.nlm.nih.gov/38457156/>

Heart rate and oxygen saturation patterns in very low birth weight infants with early onset sepsis and histologic chorioamnionitis

<https://pubmed.ncbi.nlm.nih.gov/38578905/>

Morphological and clinical findings in placentas and newborns with a history of tobacco, alcohol, and other substance abuse during pregnancy

<https://pubmed.ncbi.nlm.nih.gov/38640173/>

Effect of early total enteral feeding vs incremental feeding in small for gestational age very low birth weight infants: a randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/38640177/>

Surfactant administration methods for premature newborns: LISA vs. INSURE comparative analysis

<https://pubmed.ncbi.nlm.nih.gov/38759030/>

Covid-19 infection in pregnant women: auditory evaluation in infants

<https://pubmed.ncbi.nlm.nih.gov/38701165/>

Indocyanine green lymphography in the congenital chylothorax and chylous ascites

<https://pubmed.ncbi.nlm.nih.gov/38640176/>

A rare case of methemoglobinemia in a preterm newborn with unclear etiology

<https://pubmed.ncbi.nlm.nih.gov/38640175>

Preterm infant with necrotizing enterocolitis and arteritis secondary to streptococcus gallolyticus subspecies pasteurianus

<https://pubmed.ncbi.nlm.nih.gov/38669486>

Tumour lysis syndrome in a neonate with transient abnormal myelopoiesis

<https://pubmed.ncbi.nlm.nih.gov/38728206>

Postnatal cytomegalovirus infection and pulmonary vascular disease in extremely premature infants: a case series

<https://pubmed.ncbi.nlm.nih.gov/38728205>

Severe pulmonary hypertension and circulatory failure associated with Congenital syphilis. Case report

<https://pubmed.ncbi.nlm.nih.gov/38640174/>

#### Maternal Health, Neonatology and Perinatology

Perinatal mortality and its predictors in Beni City, Democratic Republic of Congo: a cross-sectional study

<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-024-00184-6.pdf>

Pre and perinatal predictors on autism spectrum disorders: a case-control study in the west of Iran

<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-024-00183-7.pdf>

National chlorhexidine coverage and factors associated with newborn umbilical cord care in Bangladesh and Nepal: a cross-sectional analysis using household data

<https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-024-00182-8.pdf>

#### Neoreviews

The why and how of family-centered care

<https://pubmed.ncbi.nlm.nih.gov/38945966>

Cardiac development and related clinical considerations

<https://pubmed.ncbi.nlm.nih.gov/38945970>

Bronchopulmonary dysplasia-associated pulmonary hypertension: basing care on physiology

<https://pubmed.ncbi.nlm.nih.gov/38945971>

A term neonate with refractory hypercalcemia

<https://pubmed.ncbi.nlm.nih.gov/38945969>

A term neonate with ambiguous genitalia

<https://pubmed.ncbi.nlm.nih.gov/38945973>

Persistent cyanosis in a newborn

<https://pubmed.ncbi.nlm.nih.gov/38945964>

Maternal graves disease and neonatal thyroid disease

<https://pubmed.ncbi.nlm.nih.gov/38945965>

A febrile neonate with hyperferritinemia

<https://pubmed.ncbi.nlm.nih.gov/38945968>

Prenatal diagnosis of Beckwith-Wiedemann syndrome with omphalocele

<https://pubmed.ncbi.nlm.nih.gov/38945972>

Follow-up of a term infant with a prenatal diagnosis of double-outlet right ventricle

<https://pubmed.ncbi.nlm.nih.gov/38945967>

#### JAMA Pediatrics

Evolution of gene therapy for inborn errors of immunity

<https://pubmed.ncbi.nlm.nih.gov/38767875/>

Effect of low-dose iron supplementation on early development in breastfed infants: a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/38739382/>

Mandatory child protective services reporting for substance-exposed newborns and peripartum outcomes: a difference-in-differences analysis

<https://pubmed.ncbi.nlm.nih.gov/38709513/>

#### **BMC Pediatrics**

Determinants of stillbirth among deliveries conducted at west Shoa zone public hospitals, central Ethiopia: a case-control study

<https://pubmed.ncbi.nlm.nih.gov/39068401/>

The role of community health and nutrition volunteers in improving the health and nutrition status of infant and young children in remote areas, Hajjah, Yemen

<https://pubmed.ncbi.nlm.nih.gov/39068418/>

Robot-assisted resection of choledochal cyst in neonates

<https://pubmed.ncbi.nlm.nih.gov/39049018/>

Hypothermia in preterm infants admitted to low-resource neonatal units in northern Nigeria: an observational study of occurrence and risk factors

<https://pubmed.ncbi.nlm.nih.gov/39049058/>

Clinical phenotype of pulmonary vascular disease requiring treatment in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39033281/>

Whole-body hypothermia in mild neonatal encephalopathy: protocol for a multicentre phase III randomised controlled trial

<https://pubmed.ncbi.nlm.nih.gov/39026197/>

The transition from tube feeding to oral feeding algorithm in preterm infants: case-control study

<https://pubmed.ncbi.nlm.nih.gov/39009988/>

Time to recovery and predictors among admitted preterm neonates in the neonatal intensive care units of public hospitals of Addis Ababa, Ethiopia, 2021

<https://pubmed.ncbi.nlm.nih.gov/39010049/>

Association of cord blood Ang-1 and sCD105 levels with bronchopulmonary dysplasia in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39010003/>

The effect of cesarean delivery on the neonatal gut microbiome in an under-resourced population in the Bronx, NY, USA

<https://pubmed.ncbi.nlm.nih.gov/38997672/>

#### **Pediatric Critical Care Medicine**

Pao<sub>2</sub> and mortality in neonatal extracorporeal membrane oxygenation: retrospective analysis of the extracorporeal life support organization registry, 2015–2020\*

<https://pubmed.ncbi.nlm.nih.gov/38511990/>

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

Nirsevimab and hospitalization for RSV bronchiolitis

<https://pubmed.ncbi.nlm.nih.gov/38986058/>

#### **Lancet**

No new articles

## JAMA

No new articles

## BMJ

Covid-19 infection and vaccination during first trimester and risk of congenital anomalies: Nordic registry based study

<https://pubmed.ncbi.nlm.nih.gov/39019547/>

## Pediatric Infectious Disease Journal

Neonatal sepsis due to multidrug-resistant bacteria at a tertiary teaching hospital in Ethiopia

<https://pubmed.ncbi.nlm.nih.gov/38656939/>

## Pediatric Cardiology

No new content

## Pediatric Neurology

Brain network characterization of preterm infants with bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/38733855/>

Postnatal cerebral hemodynamics and placental vascular malperfusion lesions in neonates with congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/38733857/>

Assessing the role of asthma on the relationship between neurodevelopmental disabilities and adverse birth outcomes

<https://pubmed.ncbi.nlm.nih.gov/38776595/>

Epidemiology of spinal muscular atrophy based on the results of a large-scale pilot project on 202,908 newborns

<https://pubmed.ncbi.nlm.nih.gov/38781723/>

Fetal cerebral ventriculomegaly: a narrative review and practical recommendations for pediatric neurologists

<https://pubmed.ncbi.nlm.nih.gov/38761643/>

## Obstetrics and Gynecology

No new articles

## American Journal of Obstetrics & Gynecology

Neonatal outcomes associated with in utero cannabis exposure: a population-based retrospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/38029850/>

## Hospital Pediatrics

The rounds efficiency index: a novel physics-based construct for patient- and family-centered rounds

<https://pubmed.ncbi.nlm.nih.gov/38841773/>

## **BASIC SCIENCE SELECTIONS**

Effect of oridonin on experimental animal model of bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/39014931>

Association of cord blood Ang-1 and sCD105 levels with bronchopulmonary dysplasia in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/39010003>

Transplantation of alveolar macrophages improves the efficacy of endothelial progenitor cell therapy in mouse model of bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/38772902>

PC (16:0/14:0) ameliorates hyperoxia-induced bronchopulmonary dysplasia by upregulating claudin-1 and promoting alveolar type II cell repair

<https://www.ncbi.nlm.nih.gov/pubmed/38740281>

Nanoengineered therapeutic strategies targeting SNHG1 for mitigating microglial ischemia-reperfusion injury implications for hypoxic-ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/39043303>

N-Acetylcysteine alleviates necrotizing enterocolitis by depressing SESN2 expression to inhibit ferroptosis in intestinal epithelial cells

<https://www.ncbi.nlm.nih.gov/pubmed/39037665>

Cell-permeable JNK-inhibitory peptide regulates intestinal barrier function and inflammation to ameliorate necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/39031467>

Reduced expression of REG4 as a sign of altered goblet cell function in necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/39008984>

Macrophage alpha7nAChR alleviates the inflammation of neonatal necrotizing enterocolitis through mTOR/NLRP3/IL-1beta pathway

<https://www.ncbi.nlm.nih.gov/pubmed/38996778>

Human umbilical cord mesenchymal stem cells derived-exosomes on VEGF-A in hypoxic-induced mice retinal astrocytes and mice model of retinopathy of prematurity

<https://www.ncbi.nlm.nih.gov/pubmed/39026907>

#### Other relevant articles

Antibiotics and beyond: Unraveling the dynamics of bronchopulmonary dysplasia in very preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/39023342>

Nissen Fundoplication in Infants With Severe Bronchopulmonary Dysplasia: A Propensity-Matched Analysis

<https://www.ncbi.nlm.nih.gov/pubmed/38795558>

Early postnatal high-dose fat-soluble enteral vitamin A supplementation for moderate or severe bronchopulmonary dysplasia or death in extremely low birthweight infants (NeoVitaA): a multicentre, randomised, parallel-group, double-blind, placebo-controlled, investigator-initiated phase 3 trial

<https://www.ncbi.nlm.nih.gov/pubmed/38643780>

Association between viral infection and bronchopulmonary dysplasia in preterm infants: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/38634889>

Coagulation profiles and percentiles in neonates with hypoxic-ischemic encephalopathy undergoing therapeutic hypothermia: A step toward more accurate transfusion thresholds

<https://www.ncbi.nlm.nih.gov/pubmed/39022989>

Assessment of inflammatory biomarkers to identify surgical/death necrotizing enterocolitis in preterm infants without pneumoperitoneum

<https://www.ncbi.nlm.nih.gov/pubmed/39012349>

Excellent accuracy of trained neonatal nurses in the detection of referral-warranted retinopathy of prematurity within an established telemedicine screening programme

<https://www.ncbi.nlm.nih.gov/pubmed/39034445>

Tear fluid cytokine analysis: a non-invasive approach for assessing retinopathy of prematurity severity

<https://www.ncbi.nlm.nih.gov/pubmed/38985404>