

Publications Working Group

[Ayan Rajgarhia](#), Page Editor - Children's Hospital of Orange County

Craig Nankervis - Nationwide Children's Hospital

Christopher Rouse - Mass General Brigham

Vineet Lamba - Sutter Medical Center Sacramento

Zeyar Htun - NYC Long Island School of Medicine

L. Corbin Downey - Atrium Health Wake Forest Baptist

American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN®

Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – April 2025

[Whole-body hypothermia for neonatal encephalopathy in preterm infants 33 to 35 weeks' gestation: a randomized clinical trial](#)

Roger G Faix, Abbot R Laptook, Seetha Shankaran, et al. *JAMA Pediatr*

This randomized multi-center trial included 168 infants born at 33 to 35 weeks' gestation with moderate or severe HIE at less than 6 hours after birth. Infants with hypothermia were maintained at 33.5 °C for 72 hours and then rewarmed while infants with normothermia were maintained at 37 °C. The primary outcome (composite of death or disability (moderate or severe) at 18 to 22 months' corrected age) occurred in 29 of 83 infants (35%) with hypothermia and 20 of 69 infants (29%) with normothermia. Bayesian analysis indicated 74% probability of increased death or disability and 87% probability of increased death with hypothermia. The authors concluded that among infants born at 33 to 35 weeks' gestation with HIE, hypothermia at less than 6 hours' age did not reduce death or disability at 18 to 22 months' corrected age.

[Changes in patent ductus arteriosus management and outcomes in infants born at 26-28 weeks' gestation](#)

Dinushan C Kaluarachchi, Matthew A Rysavy, Barbara T Do, et al. *J Pediatr*

This retrospective cohort study included 7,864 infants born between 2012 and 2021 in 19 hospitals in the NICHD Neonatal Research Network. During this time, there was a decrease in any PDA treatment from 21% to 16% ($P < .01$) and an increase in the primary composite outcome (surgical necrotizing enterocolitis, grade 2-3 bronchopulmonary dysplasia (BPD), severe intraventricular hemorrhage, or death) from 24% to 36% ($P < .01$).

Change in the primary outcome was driven by increased grade 2-3 BPD (13%-26%, $P < .01$), with grade 2 BPD accounting for most of this increase (10%-22%, $P < .01$). The authors noted, however, that stratified analyses showed that grade 2-3 BPD increased in all hospital groups, regardless of changes in PDA management.

[Validation of a machine learning algorithm for identifying infants at risk of hypoxic ischaemic encephalopathy in a large unseen data set](#)

Anne L Murray, Daragh S O'Boyle, Brian H Walsh, et al. *Arch Dis Child Fetal Neonatal Ed*

Using readily available clinical data, a retrospective review of the data over 5 years (N of 1191 infants who were > 36 weeks gestation with a blood gas measurement in the first hour of life) was conducted to validate previously reported machine learning (ML) algorithms to identify infants at risk of HIE immediately after birth. Two types of ML algorithms were used to calculate a probability index (PI): Logistic regression (LR) and random forest (RF) prediction algorithms from the BiHIVE2 cohort of infants. For the RF model, the AUROC (CI) for prediction of HIE was 0.926 (0.893–0.959, $p < 0.001$). The RF model, using the cut-off threshold of 0.30, identified 78.4% of mild HIE, 93% of moderate HIE and 100% of severe HIE cases. Using the LR model, the PI was calculated in the HIE versus non-HIE cohorts. The AUROC (CI) was 0.928 (0.892–0.964, $p < 0.001$). The LR model has slightly worse ability to identify cases: identifying 73% of mild HIE, 93% of moderate HIE and 100% of severe HIE cases using the same PI threshold cut-off of 0.30. This study shows the potential use of a support tool in aiding early-decision making for HIE.

[Gut pathogen colonization: a risk factor to bloodstream infections in preterm neonates admitted in the neonatal intensive care unit – a prospective cohort study](#)

Faiza Iqbal, N Siva, Padmaja A Shenoy, et al. *Neonatology*

This is a prospective cohort study that compared infants without sepsis (group A) and infants with sepsis (group B) on association between gut pathogen colonization and BSI. For group A, the first stool sample was taken on DOL4, and the second sample was taken on DOL14. For group B, the first stool sample was collected on the DOL4 (stool culture 1), and the second sample was obtained on the day when the Gram stain of blood culture bottles showed growth of pathogenic bacteria, confirming sepsis (stool culture 2). The analysis of gut microbiome colonization showed differences between group A and B. Group B was noted to have increased colonization with *K. pneumoniae* and *E. coli* and decreased colonization with *E. faecalis* and *Bifidobacterium* spp overall at both time points. In addition, there was persistent colonization of *K. pneumoniae* which could be a risk factor for development of bloodstream infections in preterm neonates. This study

suggests a potential pathway for certain microbes to translocate from gut to the bloodstream.

[Sodium butyrate attenuates experimental neonatal necrotizing enterocolitis by suppressing TLR4-mediated NLRP3 inflammasome-dependent pyroptosis](#)

Yanan Gao, Liting Yang, Hongya Wu, et al. *Food Funct.*

The protective effects of sodium butyrate (NaB) against necrotizing enterocolitis (NEC) have been documented, however, the underlying fundamental processes remain unknown. The authors used network pharmacology and confirmed a role for NaB in the attenuation of NEC and this was associated with the NLRP3 inflammasome and the NF-kappaB signaling pathway. These results were verified by proteome analysis in vivo, and molecular docking analysis was used to explore the potential underlying mechanisms, revealing a suppressive function of NaB on NEC, which may be caused by its interaction with the TLR4-mediated NF-kappaB signaling pathway. Results using assays involving the NLRP3 (MCC950) and TLR4 (TAK-242) inhibitors suggested that NaB protected intestinal cells from inflammatory injuries during NEC by suppressing the TLR4/MyD88/NF-kappaB/NLRP3/cleaved caspase-1/GSDMD inflammasome pathway. These findings indicated that NaB can be used as a potential modulatory and therapeutic candidate for the treatment of NEC.

[Intraamniotic vitamin D preserves lung development and prevents pulmonary hypertension in experimental bronchopulmonary dysplasia due to intraamniotic sFlt-1](#)

Michael W Cookson, Tania Gonzalez, Elisa M Bye, et al. *Am J Physiol Lung Cell Mol Physiol*

Preterm infants born to mothers with preeclampsia, a disease of vascular dysfunction, are at increased risk for bronchopulmonary dysplasia (BPD). The authors hypothesized that intraamniotic (IA) treatment with the biologically active form of vitamin D, 1,25 dihydroxyvitamin D [1,25(OH)(2)D], will preserve lung growth in an experimental model of BPD induced by antenatal exposure to soluble vascular endothelial growth factor receptor-1 [sFlt-1 (soluble fms-like tyrosine kinase 1)]. Intraamniotic (IA) treatment with 1,25(OH)(2)D in sFlt-1-exposed pups improved lung alveolar and vascular growth and function at 14 days of life. Pulmonary endothelial cells (PECs) orchestrate alveolar development, and the authors demonstrated that IA sFlt-1 exposure alone decreased in vitro growth and tube formation of PECs isolated from newborn pups and that PECs from pups coexposed to IA sFlt-1 and 1,25(OH)(2)D demonstrated increased growth and tube formation. 1,25(OH)(2)D may be a therapeutic option to improve lung development

through enhancement of VEGF signaling and preservation of early pulmonary endothelial growth in the newborn rat lung

[Standardized management of the first hour of premature infants: a meta-analysis available](#)

Sophie Tribolet, Sarah Dénes, Vincent Rigo, et al. *Pediatrics*

The article evaluates the impact of "Golden Hour" (GH) protocols—standardized care procedures implemented during the first hour after birth—on the outcomes of premature infants. By analyzing 18 cohort studies comprising over 5,100 infants, the authors found that GH protocols significantly reduced rates of hypothermia and shortened the time to intravenous infusion and surfactant administration. These protocols were also associated with a lower incidence of severe intraventricular hemorrhage and showed a trend toward reduced bronchopulmonary dysplasia, though no significant effect on mortality or glycemic control was observed. Despite some limitations such as study heterogeneity and overall low evidence certainty, the findings support GH protocols as a means to improve early stabilization and potentially reduce complications in preterm infants.

[Colonization of extended-spectrum beta-lactamase-producing bacteria in healthy pregnant women and its impact on perinatal care: A cross-sectional study](#)

Shigekatsu Hatanaka, Yukiko Ohashi, Tamae Mitsuhashi, et al. *J Neonatal Perinatal Med*

The article explores the prevalence of colonization by extended-spectrum beta-lactamase (ESBL)-producing bacteria in healthy pregnant women and assesses the potential for mother-to-newborn transmission. The study found a notable rate of colonization, raising concerns about the risk of neonatal infections with drug-resistant pathogens. The findings suggest the need for targeted surveillance and preventive strategies in perinatal care to manage and mitigate this risk effectively.

[The value of intestinal fatty acid binding protein as a biomarker for the diagnosis of necrotizing enterocolitis in preterm infants: a meta-analysis](#)

Li Ren, Mingyan Hei, Hailan Wu, et al. *BMC Pediatr*

Necrotizing enterocolitis (NEC) is a serious condition mainly affecting newborns, especially preterm or low birth weight ones, with a poor prognosis. The authors aimed to comprehensively evaluate the diagnostic value of intestinal-type fatty acid-binding protein (I-FABP) in NEC through meta-analysis. The present study encompassed 15 studies. I-FABP had a high diagnostic value for NEC, with a sensitivity at 0.78 (0.70-0.85), a specificity

of 0.85 (0.78-0.90), and the area under the curve value was 0.89 (0.86-0.91). The combined diagnostic odds ratio was 20.33 (10.90-37.90) indicating a high diagnostic potential with strong discriminatory power. The authors conclude that I-FABP played a crucial role in diagnosing NEC in premature infants.

[Betamethasone treatment-to-delivery interval, retreatment, and severe intraventricular hemorrhage in infants <28 weeks' gestation](#)

Ronald I Clyman, Melissa G Rosenstein, Melissa C Liebowitz, et al. *Am J Obstet Gynecol*

The authors aimed to determine if the risk for severe intraventricular hemorrhage in infants delivered at <28 weeks' gestation increases when the betamethasone treatment-to-delivery interval increases beyond 9 days and to determine if betamethasone retreatment before delivery decreases the rate of hemorrhage. The authors found that although betamethasone's benefits on severe intraventricular hemorrhage appear to wane after the first dose, retreatment with a second course seems to restore its beneficial effects. Encouraging earlier retreatment of women at high risk for delivery before 28 weeks was associated with a lower rate of severe intraventricular hemorrhages among infants delivered at <28 weeks' gestation.

OTHER NOTEWORTHY PUBLICATIONS – April 2025

Pediatrics

Procalcitonin and other inflammatory markers in febrile infants aged 60 days or younger

<https://pubmed.ncbi.nlm.nih.gov/40081451>

Birth prevalence of gastroschisis in the United States: 2016–2022

<https://pubmed.ncbi.nlm.nih.gov/40037545>

Standardized management of the first hour of premature infants: a meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/40132650>

Journal of Pediatrics

Changes in patent ductus arteriosus management and outcomes in infants born at 26-28 weeks' gestation

<https://pubmed.ncbi.nlm.nih.gov/39732160>

High-risk infant developmental outcome is associated with medical complexity and neighborhood opportunity

<https://pubmed.ncbi.nlm.nih.gov/39672373>

Neurodevelopmental outcomes after fetoscopic myelomeningocele repair

<https://pubmed.ncbi.nlm.nih.gov/39828055>

The relationship between hispanic ethnicity and outcomes for infants born extremely preterm

<https://pubmed.ncbi.nlm.nih.gov/39855622>

Physiologic pulmonary phenotyping of infants born preterm and post-discharge respiratory morbidity

<https://pubmed.ncbi.nlm.nih.gov/39855623>

Neurodevelopmental follow-up in children with intrauterine and perinatal exposure to Chikungunya virus

<https://pubmed.ncbi.nlm.nih.gov/39864503>

Data collection variability across neonatal hypoxic-ischemic encephalopathy registries

<https://pubmed.ncbi.nlm.nih.gov/39863078>

Bilateral primary congenital glaucoma in a newborn

<https://pubmed.ncbi.nlm.nih.gov/39824377>

Pediatric Research (March Content)

Tele-Neonatology—an exciting and potentially transformative tool for improving delivery room care

<https://pubmed.ncbi.nlm.nih.gov/40301528/>

Distinguishing neonatal culture-negative sepsis from rule-out sepsis with artificial intelligence-derived graphs

<https://pubmed.ncbi.nlm.nih.gov/39147905/>

Cardiorespiratory interactions during the transitional period in extremely preterm infants: a narrative review

<https://pubmed.ncbi.nlm.nih.gov/39179873/>

Methodological considerations on diffusion MRI tractography in infants aged 0–2 years: a scoping review

<https://pubmed.ncbi.nlm.nih.gov/39143201/>

Long-chain polyunsaturated fatty acids supplementation and sepsis: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/39300278/>

Systematic review of Apgar scores & cyanosis in Black, Asian, and ethnic minority infants

<https://pubmed.ncbi.nlm.nih.gov/39277651/>

Prevalence of hearing impairment in neonatal encephalopathy due to hypoxia-ischemia: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/38769399/>

Age-corrected development of preterm children: a population-based study

<https://pubmed.ncbi.nlm.nih.gov/39164388/>

Survey of vitamin D supplementation practices in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39191950/>

Placental abruption and the risk of necrotizing enterocolitis in neonates with birth weight ≥ 1500 grams; US national database study

<https://pubmed.ncbi.nlm.nih.gov/39179876/>

Heart rate patterns predicting cerebral palsy in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/37891365/>

Rapidly progressive necrotizing enterocolitis: Risk factors and a predictive model

<https://pubmed.ncbi.nlm.nih.gov/39147906/>

Bilirubinemia and retinopathy of prematurity in infants ≤ 29 weeks' gestational age

<https://pubmed.ncbi.nlm.nih.gov/39191947/>

Changes in skin barrier over the first four days of life: a cross-sectional study

<https://pubmed.ncbi.nlm.nih.gov/39215196/>

Prognostic value of serum high-mobility group box 1 in neonates with neonatal encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/39009766/>

Race as social determinant of growth and body composition among infants born very preterm

<https://pubmed.ncbi.nlm.nih.gov/39034355/>

Vasa vasorum enhancement on optical coherence tomography in Kawasaki disease

<https://pubmed.ncbi.nlm.nih.gov/39039326/>

Heart rate variability and cognitive functions in adolescents with complex congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/39080463/>

Long term follow-up of patients with patent ductus arteriosus after transcatheter closure

<https://pubmed.ncbi.nlm.nih.gov/38877281/>

Biomarker screening for pulmonary hypertension in VLBW infants at risk for bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/39217263/>

Perinatal arterial ischemic stroke diagnosed in infants receiving therapeutic hypothermia for hypoxic-ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/39191951/>

Neurodevelopmental outcomes in extremely preterm infants with placental pathologic evidence of fetal inflammatory response

<https://pubmed.ncbi.nlm.nih.gov/39112787/>

Maternal psychophysiology profiles: associations with prenatal opioid use, maternal emotion dysregulation, and newborn neurobehavior

<https://pubmed.ncbi.nlm.nih.gov/39097654/>

Control of breathing in preterm infants on incubator oxygen or nasal cannula oxygen

<https://pubmed.ncbi.nlm.nih.gov/39147903/>

Bifidobacterium regulates premature infant gut metabolites, reducing serum inflammatory factors: a randomised controlled trial

<https://pubmed.ncbi.nlm.nih.gov/39271904/>

Neurofilament light chain associates with IVH and ROP in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39317698/>

Quantitative plasma proteomic analysis in children after superior cavopulmonary anastomosis with pulmonary arteriovenous malformations

<https://pubmed.ncbi.nlm.nih.gov/39134758/>

Neuroserpin normalization by mesenchymal stem cell therapy after encephalopathy of prematurity in neonatal rats

<https://pubmed.ncbi.nlm.nih.gov/39085403/>

Slow rewarming after hypothermia does not ameliorate white matter injury after hypoxia-ischemia in near-term fetal sheep

<https://pubmed.ncbi.nlm.nih.gov/39103629/>

Perinatal hypoxia augments contractile impact of NADPH oxidase-derived ROS in early postnatal rat arteries

<https://pubmed.ncbi.nlm.nih.gov/39127838/>

The impact of breastfeeding on the preterm infant's microbiome and metabolome: a pilot study

<https://pubmed.ncbi.nlm.nih.gov/39138352/>

Phlebotomy-induced anemia reduces oxygen-induced retinopathy severity and dampens retinal developmental transcriptomic pathways in rats

<https://pubmed.ncbi.nlm.nih.gov/39379628/>

Family reflections: a whole person: navigating aging and cerebral palsy

<https://pubmed.ncbi.nlm.nih.gov/39824942/>

Family reflections: including a lifespan perspective in cerebral palsy care and research

<https://pubmed.ncbi.nlm.nih.gov/39827253/>

Archives of Disease in Childhood - Fetal & Neonatal Edition

Macronutrient concentrations in human milk beyond the first half year of lactation: a cohort study

<https://pubmed.ncbi.nlm.nih.gov/39532521/>

Cerebral injury and retinopathy as risk factors for blindness in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39332892/>

Neonatal hyperinsulinism: a retrospective study of presentation and management in a tertiary neonatal intensive care unit in the UK <https://pubmed.ncbi.nlm.nih.gov/39304222/>

Trends in sex differences in neurodevelopmental outcomes among extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39288987/>

Validation of a machine learning algorithm for identifying infants at risk of hypoxic ischaemic encephalopathy in a large unseen data set

<https://pubmed.ncbi.nlm.nih.gov/39251344/>

Fetal haemoglobin and oxygen requirement in preterm infants: an observational study

<https://pubmed.ncbi.nlm.nih.gov/39322316/>

Association between early pulmonary arterial pressure measurements and bronchopulmonary dysplasia or mortality in very preterm infants: a prospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/39389763/>

Intermittent sigh breaths during high-frequency oscillatory ventilation in preterm infants: a randomised crossover study

<https://pubmed.ncbi.nlm.nih.gov/39406472/>

Clinical and neuroimaging patterns of perinatal intracranial haemorrhage in fetuses and term-born neonates: a prospective observational cohort study

<https://pubmed.ncbi.nlm.nih.gov/39477526/>

Effect of an oral stimulation protocol on breastfeeding among preterm infants: a randomised controlled trial

<https://pubmed.ncbi.nlm.nih.gov/39547709/>

Delivery room dextrose gel for preterm hypoglycaemia (the GEHPPI study): a randomised placebo-controlled trial

<https://pubmed.ncbi.nlm.nih.gov/39515988/>

Young adult reflections on life experiences following preterm birth: a cross-sectional descriptive study

<https://pubmed.ncbi.nlm.nih.gov/39567212/>

Impact of visual distraction on neonatal mask ventilation: a simulation-based eye-tracking study

<https://pubmed.ncbi.nlm.nih.gov/39578042/>

Journal of Perinatology

The role of QI collaboratives in neonatology

<https://pubmed.ncbi.nlm.nih.gov/39384615/>

Strategies to reduce CMV infectivity in breastmilk to preterm babies – impact on transmission, nutrients, and bioactivity: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/40148583/>

Meta-analysis and Mendelian randomization study on the association between exposure to chlorinated disinfection byproducts and preterm birth risk

<https://pubmed.ncbi.nlm.nih.gov/39789297/>

Volatile organic compounds in exhaled breath of newborns: a pilot study

<https://pubmed.ncbi.nlm.nih.gov/39198557/>

Using umbilical cord tissue to identify prenatal ethanol exposure and co-exposure to other commonly misused substances

<https://pubmed.ncbi.nlm.nih.gov/39069544/>

Increased risk of severe neonatal opioid withdrawal syndrome in pregnancies with low placental ABCB1 DNA methylation

<https://pubmed.ncbi.nlm.nih.gov/39033231/>

Prediction of site-specific pharmacologic therapy among newborns with neonatal opioid withdrawal syndrome

<https://pubmed.ncbi.nlm.nih.gov/39406940/>

Buprenorphine vs. morphine: impact on neonatal opioid withdrawal syndrome (NOWS) outcomes in a single center retrospective study

<https://pubmed.ncbi.nlm.nih.gov/39003405/>

Outpatient tapering of buprenorphine in opioid use disorder pregnancies may improve neonatal outcomes

<https://pubmed.ncbi.nlm.nih.gov/39929991/>

Diagnostic accuracy and short-term implications of prenatally diagnosed vascular rings: a single center study

<https://pubmed.ncbi.nlm.nih.gov/40038539/>

Clinical utility of rapid whole genome sequencing in neonatal patients receiving extracorporeal membrane oxygenation (ECMO)

<https://pubmed.ncbi.nlm.nih.gov/39604575/>

Stabilization, respiratory care and survival of extremely low birth weight infants transferred on the first day of life

<https://pubmed.ncbi.nlm.nih.gov/38969826/>

Retrospective study of preterm infants exposed to inhaled nitric oxide in Kaiser Permanente Southern California: morbidity, mortality and follow-up

<https://pubmed.ncbi.nlm.nih.gov/39025953/>

Outcomes, safety and health economics of introduction of video laryngoscopy-assisted less invasive surfactant administration

<https://pubmed.ncbi.nlm.nih.gov/39578512/>

A pilot study of a virtual reality-based simulation platform for Neonatal Resuscitation Program training

<https://pubmed.ncbi.nlm.nih.gov/39402131/>

Reducing the percentage of surviving infants with acute symptomatic seizures discharged on anti-seizure medication

<https://pubmed.ncbi.nlm.nih.gov/39043995/>

A practical gestational age-based algorithm for timely detection of hypothyroidism in premature infants

<https://pubmed.ncbi.nlm.nih.gov/38734804/>

Continuous improvement of non-emergent neonatal intubations in a level IV NICU

<https://pubmed.ncbi.nlm.nih.gov/39025954/>

Neonatology

Growth and cognitive outcome in very preterm infants with postnatal cytomegalovirus infection

<https://pubmed.ncbi.nlm.nih.gov/39662062/>

Oscillatory blood pressure values in newborn infants: observational data over gestational ages

<https://pubmed.ncbi.nlm.nih.gov/39496234/>

Gut pathogen colonization: a risk factor to bloodstream infections in preterm neonates admitted in the neonatal intensive care unit – a prospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/39675351/>

Reference ranges for preductal oxygen saturation and heart rate in moderate and late preterm infants with deferred cord clamping <https://pubmed.ncbi.nlm.nih.gov/39581183/>

No short-term effect of low-dose nicotine on inflammation after global hypoxia in newborn piglets

<https://pubmed.ncbi.nlm.nih.gov/39317175/>

Neurodevelopmental changes and postnatal growth in the first 3 years of extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/39389049/>

Fifteen years of neonatal therapeutic hypothermia: clinical trends show unchanged post-rewarming outcomes despite reduction in hypoxic-ischemic encephalopathy severity

<https://pubmed.ncbi.nlm.nih.gov/39437752/>

Association between time with open ductus arteriosus and outcomes in congenital diaphragmatic hernia

<https://pubmed.ncbi.nlm.nih.gov/39504949/>

Characterizing the role of left ventricular indices and biventricular interaction in bronchopulmonary dysplasia-associated pulmonary hypertension in extreme prematurity

<https://pubmed.ncbi.nlm.nih.gov/39631380/>

Urinary lactate-to-creatinine ratio during the first days of life correlates with the degree of brain damage in premature infants

<https://pubmed.ncbi.nlm.nih.gov/39657616/>

Intravenous dextrose for the treatment of neonatal hypoglycaemia: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/39536722/>

American Journal of Perinatology

Clinical analysis of inhaled nitric oxide therapy in preterm infants at different gestational ages: a national retrospective multicenter study

<https://pubmed.ncbi.nlm.nih.gov/39379026>

Evaluating nutritional selection and outcomes in neonatal abstinence syndrome: a retrospective review

<https://pubmed.ncbi.nlm.nih.gov/39389555>

Maternal and infant morbidity and mortality in relation to delivery mode in a large U.S. health care claims database in 2019 and 2020

<https://pubmed.ncbi.nlm.nih.gov/39317208>

Social determinants of preterm birth amongst non-hispanic Black individuals

<https://pubmed.ncbi.nlm.nih.gov/39317209>

Development and evaluation of a rural longitudinal neonatal resuscitation program telesimulation program (MOOSE: Maine Ongoing Outreach Simulation Education)

<https://pubmed.ncbi.nlm.nih.gov/39326455>

Neonatal outcomes at 2 years following expectant management of previable premature prelabor rupture of membranes at a single center

<https://pubmed.ncbi.nlm.nih.gov/39333040>

Virulence potential of ESBL-producing escherichia coli isolated during the perinatal period

<https://pubmed.ncbi.nlm.nih.gov/39353616>

Journal of Neonatal-Perinatal Medicine

Impact of dexmedetomidine during hypothermia on initiation of enteral feeding in newborns with hypoxic-ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/39973519>

POCUS using the neo-ECHOTIP protocol plus the retract, advance, and position (RAP) technique to improve lower extremity catheter positioning in neonates

<https://pubmed.ncbi.nlm.nih.gov/39973518>

Predictive values of prognostic nutritional index and systemic immune-inflammatory index in the follow-up newborns of preeclamptic mothers

<https://pubmed.ncbi.nlm.nih.gov/39973521>

Ratio of non-protein calories to grams of amino acids and amino acid blood levels in preterm infants receiving parenteral nutrition

<https://pubmed.ncbi.nlm.nih.gov/39973522>

Gender differences in survival rates among extreme low birth weight infants: Insight from a 16-year, single-centre study

<https://pubmed.ncbi.nlm.nih.gov/40222894>

Colonization of extended-spectrum beta-lactamase-producing bacteria in healthy pregnant women and its impact on perinatal care: A cross-sectional study

<https://pubmed.ncbi.nlm.nih.gov/40152933>

National variation in delayed cord clamping implementation – A survey of the challenges in universal adoption of DCC in the United Kingdom

<https://pubmed.ncbi.nlm.nih.gov/39973520>

Point of care v/s central lab automated blood culture system in decreasing antibiotic usage in NICU: A randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/40222893>

Surgical NEC-associated cerebellar underdevelopment and PDA: Call for close monitoring and action

<https://pubmed.ncbi.nlm.nih.gov/39973523>

Ping-pong skull fracture in a neonate managed successfully with vacuum-assisted technique

<https://pubmed.ncbi.nlm.nih.gov/39973532>

Neonatal inpatient stays longer than one year: Who was admitted, what happened, and how much did it cost?

<https://pubmed.ncbi.nlm.nih.gov/39973529>

Infantile myofibromatosis: Small bumps pose big problems

<https://pubmed.ncbi.nlm.nih.gov/39973527>

Maternal Health, Neonatology and Perinatology

No new relevant articles

Neoreviews

State initiatives to improve care for infants with prenatal substance exposure

<https://pubmed.ncbi.nlm.nih.gov/40164206>

Eat, sleep, console approach: effectiveness, outcomes, and future considerations

<https://pubmed.ncbi.nlm.nih.gov/40164207>

Advances, nuances, and future directions in neonatal toxicology testing

<https://pubmed.ncbi.nlm.nih.gov/40164210>

High stakes: exploring the impact of cannabis use in pregnancy and lactation

<https://pubmed.ncbi.nlm.nih.gov/40164212>

Plans of safe care in substance-exposed infants: components, complexities, and collaboration

<https://pubmed.ncbi.nlm.nih.gov/40164209>

Cutaneous eschar in a growth-restricted extremely premature infant

<https://pubmed.ncbi.nlm.nih.gov/40164214>

Decoding the enigma of multiple neonatal deaths

<https://pubmed.ncbi.nlm.nih.gov/40164211>

Intrahepatic cholestasis of pregnancy and neonatal deliveries

<https://pubmed.ncbi.nlm.nih.gov/40164208>

White streak of hair: a thread to an unusual diagnosis in a mother-infant dyad

<https://pubmed.ncbi.nlm.nih.gov/40164213>

JAMA Pediatrics

Can vaginal seeding improve health outcomes of infants born by cesarean delivery?

<https://pubmed.ncbi.nlm.nih.gov/39928324>

NICHD Magnetic resonance brain imaging score in term infants with hypoxic-ischemic encephalopathy: a secondary analysis of a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/39960680>

Whole-body hypothermia for neonatal encephalopathy in preterm infants 33 to 35 weeks' gestation: a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/39992674>

Low to moderate prenatal alcohol exposure and facial shape of children at age 6 to 8 years

<https://pubmed.ncbi.nlm.nih.gov/39928322>

Maternal downward neighborhood income mobility and ensuing severe neonatal morbidity

<https://pubmed.ncbi.nlm.nih.gov/39960682>

BMC Pediatrics

Time series analysis for forecasting neonatal intensive care unit census and neonatal mortality

<https://pubmed.ncbi.nlm.nih.gov/40301778/>

Gut microbiome dysbiosis as a potential biomarker for liver metabolic disorders in neonatal hemolytic jaundice

<https://pubmed.ncbi.nlm.nih.gov/40301849/>

Evaluation of timed dexamethasone eye drops to prevent proliferative retinopathy of prematurity: a study protocol for a randomized intervention, multi-centre, double-blinded trial (DROPROP)

<https://pubmed.ncbi.nlm.nih.gov/40295974/>

Risk factors for invasive mechanical ventilation, extracorporeal membrane oxygenation, and mortality in children with severe adenovirus infection in the pediatric intensive care unit: a retrospective study

<https://pubmed.ncbi.nlm.nih.gov/40296021/>

Guidance strategies for infantile asymmetry prevention: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/40281500/>

Metabolism-related hepatokines change in biliary atresia: ANGPTL6 as a potential biomarker

<https://pubmed.ncbi.nlm.nih.gov/40281461/>

Prediction of significant congenital heart disease in infants and children using continuous wavelet transform and deep convolutional neural network with 12-lead electrocardiogram

<https://pubmed.ncbi.nlm.nih.gov/40275174/>

A new mortality score in preterm infants: the vasoactive inotropic score

<https://pubmed.ncbi.nlm.nih.gov/40264079/>

Mortality, morbidity and growth among moderately low birthweight infants in India, Malawi, and Tanzania

<https://pubmed.ncbi.nlm.nih.gov/40264138/>

Leukocyte adhesion deficiency type III in an infant presenting with intestinal perforation and low percentage of natural killer cells: first case report from Iran

<https://pubmed.ncbi.nlm.nih.gov/40263987/>

Analysis of the causes of redo pull-through for recurrent constipation and the risk factors affecting the prognosis of the Hirschsprung's disease: a single-center retrospective study and systematic review

<https://pubmed.ncbi.nlm.nih.gov/40264046/>

A case of complete atrioventricular septal defect in which extracorporeal membrane oxygenation could be removed after performing the bilateral Glenn procedure for severe cardiac dysfunction after tricuspid valve replacement: a case report

<https://pubmed.ncbi.nlm.nih.gov/40241091/>

Prevalence and perinatal risk factors of growth retardation in congenital diaphragmatic hernia survivors

<https://pubmed.ncbi.nlm.nih.gov/40229783/>

Placental histology for infants with hypoxic ischaemic encephalopathy compared with healthy controls: a case-control study

<https://pubmed.ncbi.nlm.nih.gov/40229702/>

Spinnaker-sail sign in full-term neonates with spontaneous pneumomediastinum: a case study and scoping literature review

<https://pubmed.ncbi.nlm.nih.gov/40229715/>

Family-centered care in neonatal and pediatric critical care units: a scoping review of interventions, barriers, and facilitators

<https://pubmed.ncbi.nlm.nih.gov/40223058/>

Kangaroo mother care among hospitalised neonates: evaluation of the validity of duration measurement methods compared to observation linked to the OMWaNA trial in Uganda

<https://pubmed.ncbi.nlm.nih.gov/40205609/>

Focus on physiotherapy and manual therapy for infants in Norway, a cross-sectional study on referral practice, and planned interventions

<https://pubmed.ncbi.nlm.nih.gov/40205420/>

Geographic equity in essential newborn care practices in Ethiopia: a cross-sectional study

<https://pubmed.ncbi.nlm.nih.gov/40205458/>

Clinical characteristics, and outcomes of severe neonatal thrombocytopenia: a retrospective cohort study in China

<https://pubmed.ncbi.nlm.nih.gov/40181295/>

Scoping review of clinical decision aids in the assessment and management of febrile infants under 90 days of age

<https://pubmed.ncbi.nlm.nih.gov/40181355/>

The effect of combined non-pharmacological interventions on venous blood sampling pain in preterm infants: a clinical trial study

<https://pubmed.ncbi.nlm.nih.gov/40181237/>

Unravelling a pediatric enigma: coexisting retroesophageal right subclavian artery and congenital colonic stenosis masquerading as cow's milk protein allergy and ileus in a neonate

<https://pubmed.ncbi.nlm.nih.gov/40175956/>

Cryptococcus albidus fungemia and probable meningitis in very preterm newborn: a case report and review of the literature

<https://pubmed.ncbi.nlm.nih.gov/40175917/>

Outcomes of neonatal hyperbilirubinemia and associated factors at a tertiary hospital in Ghana

<https://pubmed.ncbi.nlm.nih.gov/40175976/>

Pediatric Critical Care Medicine

Daily surveillance blood cultures in children supported with extracorporeal membrane oxygenation: single-center, retrospective cohort study, 2021–2023

<https://pubmed.ncbi.nlm.nih.gov/39918376/>

Severity of impaired oxygenation and conservative oxygenation targets in mechanically ventilated children: a post hoc subgroup analysis of the oxy-picu trial of conservative oxygenation

<https://pubmed.ncbi.nlm.nih.gov/39803991/>

Lancet

Strengthening health systems and accountability: Senegal's path to success in reproductive, maternal, newborn, and child health

<https://pubmed.ncbi.nlm.nih.gov/40222379/>

JAMA

Amid decreasing infant mortality, sleep-related infant deaths are on the rise

<https://pubmed.ncbi.nlm.nih.gov/40085105/>

Black maternal mortality remains disproportionately high

<https://pubmed.ncbi.nlm.nih.gov/40085116/>

BMJ

No relevant articles

Pediatric Infectious Disease Journal

Infantile *pasteurella multocida* meningitis: case report and review of the literature

<https://pubmed.ncbi.nlm.nih.gov/40063964/>

High rates of “watch” and “reserve” class antibiotics used to treat infections in neonates and infants in southeast Asia

<https://pubmed.ncbi.nlm.nih.gov/39961140/>

Dosing, toxicity and drug concentrations for ganciclovir/valganciclovir in preterm and low birthweight infants treated for cytomegalovirus

<https://pubmed.ncbi.nlm.nih.gov/40063966/>

Prevalence of anti-HIV antibodies at 12 months of age in infants exposed to HIV

<https://pubmed.ncbi.nlm.nih.gov/39823599/>

A comparison of clinical and laboratory features in neonatal proven sepsis and COVID-19

<https://pubmed.ncbi.nlm.nih.gov/40063969/>

Challenges of congenital HHV6 infection diagnosis and treatment: two case reports and literature review

<https://pubmed.ncbi.nlm.nih.gov/40063970/>

Effect of HIV and malaria in pregnancy on pertussis-specific antibodies and transplacental antibody transfer: a secondary analysis of a prospective cohort study in Mozambican pregnant women and their infants

<https://pubmed.ncbi.nlm.nih.gov/39637303/>

Pediatric Cardiology

Suboptimal imaging on obstetric ultrasound should prompt early referral for fetal echocardiography

<https://pubmed.ncbi.nlm.nih.gov/38831151/>

Machine learning quantification of pulmonary regurgitation fraction from echocardiography

<https://pubmed.ncbi.nlm.nih.gov/38730015>

Machine learning to predict outcomes of fetal cardiac disease: a pilot study

<https://pubmed.ncbi.nlm.nih.gov/38724761>

Experiences in tube weaning children with congenital heart disease and oral feeding aversion

<https://pubmed.ncbi.nlm.nih.gov/38744695>

Double jeopardy: a distinct mortality pattern among preterm infants with congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/38864860>

Perspectives of challenges in counseling for congenital heart defects

<https://pubmed.ncbi.nlm.nih.gov/38907869>

Transitional hemodynamics in neonates born through meconium-stained amniotic fluid: a prospective observational study

<https://pubmed.ncbi.nlm.nih.gov/38782782>

Brachiocephalic vein duplication: case report of a double left brachiocephalic vein in an infant

<https://pubmed.ncbi.nlm.nih.gov/38907036>

Pediatric Neurology

Added value of microvascular imaging for the diagnosis and monitoring of strokes in newborns and infants

<https://pubmed.ncbi.nlm.nih.gov/39908709>

Obstetrics and Gynecology

American Journal of Obstetrics & Gynecology

Substance use and use disorders during pregnancy and the postpartum period

<https://pubmed.ncbi.nlm.nih.gov/39798910/>

Pregnancy outcomes in type 2 diabetes: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/39662865/>

Z-score-based posttest risk as an alternative risk metric to positive predictive value following positive noninvasive prenatal screening

<https://pubmed.ncbi.nlm.nih.gov/39689779/>

Quantifying the association between doula care and maternal and neonatal outcomes

<https://pubmed.ncbi.nlm.nih.gov/39187115/>

Introduction of a nationwide first-trimester anomaly scan in the Dutch national screening program

<https://pubmed.ncbi.nlm.nih.gov/39067498/>

Implementing a bundle for evidence-based cesarean delivery may not be as beneficial as expected: a multicenter, pre- and post-study

<https://pubmed.ncbi.nlm.nih.gov/38599476/>

Characteristics, intrapartum cardiotocography patterns, and postnatal brain imaging findings for cerebral palsy subtypes

<https://pubmed.ncbi.nlm.nih.gov/39643073/>

Hospital Pediatrics

The effect of a brief medical huddle on patient and family experience during rounds

<https://pubmed.ncbi.nlm.nih.gov/40068809/>

“Like a hot potato”: breakdown of clinician-parent communication about newborn toxicology testing

<https://pubmed.ncbi.nlm.nih.gov/40058405/>

BASIC SCIENCE SELECTIONS

Inhibition of CHI3L1 attenuates excessive autophagy in intestinal epithelial cells to reduce the severity of necrotizing enterocolitis <https://www.ncbi.nlm.nih.gov/pubmed/40188090>

Sodium butyrate attenuates experimental neonatal necrotizing enterocolitis by suppressing TLR4-mediated NLRP3 inflammasome-dependent pyroptosis

<https://www.ncbi.nlm.nih.gov/pubmed/40223745>

PHD3-mediated inhibition of retinal neovascularization in retinopathy of prematurity

<https://www.ncbi.nlm.nih.gov/pubmed/39915892>

Intercellular adhesion molecule (ICAM)-1 is required to control *Toxoplasma gondii* infection in uterine tissues and establish a successful gestation in a murine model of congenital toxoplasmosis

<https://www.ncbi.nlm.nih.gov/pubmed/40204594>

Sodium propionate protects against bronchopulmonary dysplasia by inhibiting IL-17-mediated apoptosis of alveolar epithelial cells

<https://www.ncbi.nlm.nih.gov/pubmed/40188136>

Intraamniotic vitamin D preserves lung development and prevents pulmonary hypertension in experimental bronchopulmonary dysplasia due to intraamniotic sFlt-1

<https://www.ncbi.nlm.nih.gov/pubmed/40125892>

Other noteworthy publications

Outcomes of ventilator-dependent children with severe bronchopulmonary dysplasia and tracheobronchomalacia

<https://www.ncbi.nlm.nih.gov/pubmed/40243389>

High-dose docosahexaenoic acid for bronchopulmonary dysplasia severity in very preterm infants: a collaborative individual participant data meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/40180500>

Efficacy of probiotic supplementation in preventing necrotizing enterocolitis in preterm infants: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/40204632>

Surgical treatment of perforated necrotizing enterocolitis and spontaneous intestinal perforation in extremely low birth weight premature infants- is resection and primary anastomosis a safe option?

<https://www.ncbi.nlm.nih.gov/pubmed/39923746>

A pilot study on dynamic multimodal neuromonitoring for predicting neurodevelopmental outcomes in neonatal hypoxic ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/40174575>

Automated neuroprognostication via machine learning in neonates with hypoxic-ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/39655476>

Prophylactic fetal creatine supplementation improves post-asphyxial eeg recovery and reduces seizures in fetal sheep: implications for hypoxic-ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/39644170>

Association of the ADRB2 rs1042714 variant with retinopathy of prematurity highlights the importance of the renin-angiotensin-aldosterone system

<https://www.ncbi.nlm.nih.gov/pubmed/40175432>

Implementation of standardized feeding pathways for infants with gastroschisis to improve patient outcomes: A quality improvement project in a level IV surgical NICU

<https://www.ncbi.nlm.nih.gov/pubmed/39319372>

Prevalence and perinatal risk factors of growth retardation in congenital diaphragmatic hernia survivors

<https://www.ncbi.nlm.nih.gov/pubmed/40229783>

Observed/expected lung-to-head ratio and total lung volumes that identify fetuses with severe congenital diaphragmatic hernia in a North American fetal center

<https://www.ncbi.nlm.nih.gov/pubmed/40169913>

Intentional delivery versus expectant management in preterm prelabour rupture of membranes at 28-34 weeks of gestation - A prospective observational study

<https://www.ncbi.nlm.nih.gov/pubmed/40250831>

Safety and efficacy of extended expectant management in preterm premature rupture of membrane between 32 and 34 weeks of pregnancy-A randomization control trial

<https://www.ncbi.nlm.nih.gov/pubmed/40250040>