

Publications Working Group

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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – May, 2023

[Neurodevelopmental consequences of preterm punctate white matter lesions: a systematic review](#)

Clara Adriana Maria de Bruijn, Stefano Di Michele, Maria Luisa Tataranno et al. *Pediatr Res*.

This analysis included nine studies with a total of 1655 preterm infants in which punctate white matter lesions (PWML) on MRI around term-equivalent age and neurodevelopmental outcome at ≥ 12 months were reported. Mean incidence of isolated PWML was 22.1%. All studies showed a relationship between PWML and motor delay at ≥ 12 months. Six studies showed a significantly higher incidence of cerebral palsy in preterm infants with PWML. Two studies found a significant correlation between cognitive and behavioral outcomes and PWML. Finally, there was a directly proportional relationship between the number of lesions and the severity of impairments.

[Neurological examination at 32-weeks postmenstrual age predicts 12-month cognitive outcomes in very preterm-born infants](#)

Isabel U Huf, Emmah Baque, Paul B Colditz et al. *Pediatr Res*.

This prospective cohort study evaluated 119 infants (73 males; median 28.4 weeks gestational age at birth) who underwent early (30-32 weeks postmenstrual age) and term equivalent age Hammersmith Neonatal Neurological Examination (HNNE). At twelve months, 104 participants completed Bayley III Scales of Infant and Toddler Development. The authors found that early HNNE assessment had moderate diagnostic accuracy for cognitive outcomes at 12 months corrected age in infants born < 31 weeks gestation. Early HNNE at 30-32 weeks had stronger predictive validity than HNNE at term equivalent age. The authors concluded that early HNNE may provide an early marker for risk-stratification to optimise the planning of post-discharge support and follow-up services for infants born preterm.

[Prophylactic surfactant nebulisation for the early aeration of the preterm lung: a randomised clinical trial](#)

Vincent D Gaertner, Stefan Minocchieri, Andreas D Waldmann, et al. *Arch Dis Child Fetal Neonatal Ed*.

Parallel, randomised clinical trial, conducted between March 2021 and January 2022 to determine whether prophylactic surfactant nebulisation (SN) improves early lung aeration. Data from 35 infants were collected, and primary outcome data were analysed from 32 infants ($n=16$ /group) between 26 0/7 and 31 6/7 weeks of gestation. Prophylactic SN in the delivery room did not significantly affect end-expiratory lung impedance from birth to 30 min after birth and showed only minimal effects on lung physiology. Prophylactic SN in the DR was feasible. There were no differences in clinical outcomes.

[Exposure to umbilical cord management approaches and death or neurodevelopmental impairment at 22–26 months' corrected age after extremely preterm birth](#)

Sara C Handley, Neha Kumbhat, Barry Eggleston, et al. *Arch Dis Child Fetal Neonatal Ed.*

The goal of this study was to compare death or severe neurodevelopmental impairment (NDI) at 22-26 months' corrected age (CA) among extremely preterm infants following exposure to different forms of umbilical cord management. Infants born <27 weeks' gestation in 2016-2018 without severe congenital anomalies who received active treatment after birth and underwent neurodevelopmental assessments between 22 and 26 months' CA. Compared with Immediate cord clamping, delayed cord clamping exposure was associated with lower death or severe NDI at 22-26 months' CA among extremely preterm infants, which was not mediated by severe IVH.

[COMFORTneo scale: a reliable and valid instrument to measure prolonged pain in neonates?](#)

Naomi J Meesters, Tinne Dilles, Joost van Rosmalen, et al. *J Perinatol.*

In this prospective observational study, the authors studied the reliability and validity of the COMFORTneo scale which is designed to measure neonatal prolonged pain. They evaluated four clinimetric properties of the COMFORTneo scale from NICU nurses' assessments of neonates' pain. Pain scores using N-PASS were correlated with COMFORTneo scores to evaluate construct validity. They found that COMFORTneo can be used to reliably and validly assess pain in NICU patients.

[Effects of prophylactic probiotics supplementation on infants born very preterm or very low birth weight](#)

Arpitha Chiruvolu, Heather Hendrikson, Rachael Hanson et al. *J Perinatol.*

The authors sought to evaluate the effects of guideline-driven prophylactic supplementation of a multi-strain neonatal intensive care unit-specific probiotic product on infants born very preterm (VP) or very low birth weight (VLBW). They compared a prospective cohort of 125 infants born in one year after implementation who received probiotics to a retrospective cohort of eligible 126 VP or VLBW infants who did not receive probiotics. The primary outcome of interest was necrotizing enterocolitis (NEC). They found that, although nonsignificant, prophylactic probiotics supplementation in infants born VP or VLBW was associated with reduction of NEC.

[Early antibiotic use and neonatal outcomes among preterm infants without infections](#)

Weiyin Yu, Lan Zhang, Shujuan Li, et al. *Pediatrics.*

This is a multi-center cohort that assessed if early antibiotics exposure in preterm infants without infection was associated with adverse morbidities (BPD, ROP PVL, NEC, LOS) and late antibiotic use (<7 days of age). The study had a total of 21,540 infants, of whom 18,302 (85%) received early antibiotics. Early antibiotic was related to increased BPD, late antibiotic use, and late antibiotic use rate without a decrease in death or any morbidity. In addition, exposure to broad-spectrum antibiotics showed larger effect size on the outcomes than narrow-spectrum antibiotics. Therefore, judicious use of and antimicrobial stewardship on early antibiotics may improve neonatal outcomes and overall antibiotic use.

[The metabolic and lipidomic profiling of the effects of tracheal occlusion in a rabbit model of congenital diaphragmatic hernia](#)

Zachary E Easton, Timothy R H Regnault, Martina Mudri, et al. *J Pediatr Surg.*

Fetal tracheal occlusion (TO) reverses the pulmonary hypoplasia associated with congenital diaphragmatic hernia (CDH), but its mechanism of action remains poorly understood. CDH was created in fetal rabbits at 23 days, TO at 28 days and lung collection at 31 days (Term approximately 32 days). Lung-body weight ratio (LBWR) was significantly lower in CDH while CDH + TO was similar to controls ($p = 0.003$). Mean terminal bronchiole density (MTBD) was significantly higher in CDH fetuses and restored to control and sham levels in CDH + TO ($p < 0.001$). CONCLUSION: CDH + TO

reverses pulmonary hypoplasia in the CDH rabbit, in association with a specific metabolic and lipid signature.

[MSC-EXO and tempol ameliorate bronchopulmonary dysplasia in newborn rats by activating HIF-1alpha](#)

Juanmei Wang, Aimin Zhang, Furong Huang, et al. *Pediatr Pulmonol*.

This study investigates the effect of the combination of mesenchymal stem cells-derived exosomes (MSC-EXO) and tempol on BPD and analyzes its mechanism. The authors successfully extracted and identified MSC-EXO. In BPD rats, tidal volume, minute ventilation, peak inspiratory flow, and dynamic pulmonary compliance decreased, alveoli were simplified, and the number of interalveoli small vessels, blood vessel density decreased. Moreover, radical alveolar count, CD31, TAOC, and SOD decreased, and MLI, alpha-SMA, MDA, IL-1beta, IL-17, IL-6, and IFN-gamma increased, which was reversed by the combination of MSC-EXO and tempol treatment after combined treatment. Combined treatment could improve lung tissue injury, promote pulmonary vascular remodeling, restore lung function, and inhibit oxidative stress in BPD rats. These effects were achieved through activation of HIF-1alpha.

[A randomized trial of an exclusive human milk diet in neonates with single ventricle Physiology](#)

Cynthia L Blanco, Amy Hair, Lindsey B Justice, et al. *J Pediatr*.

This randomized controlled trial was conducted to determine whether weight gain velocity (g/kg/day) 30 days after the initiation of feeds after cardiac surgery and other clinical outcomes improve in infants with single ventricle physiology fed an exclusive human milk diet compared with a mixed human and bovine diet. Term neonates 7 days of age or younger with single ventricle physiology and anticipated cardiac surgical palliation within 30 days of birth were enrolled at 10 US centers. 107 neonates (exclusive human milk = 55, control = 52) were enrolled. The human milk group received human milk fortified once feeds reached 60ml/kg/day and control group received standard fortification with formula once enteral feeds reached 100ml/kg/day. The study results show the exclusive human milk showed improved growth (12 g/day [IQR, 5-18 g/day] vs 8 g/day [IQR, 0.4-14 g/day], respectively; P = .03). Necrotizing enterocolitis of all Bell stages was higher in the control group (15.4 % vs 3.6%, respectively; P = .04). Other major morbidities and length of hospital stay and mortality were similar between the groups.

[Assessment of corticosteroid therapy and death or disability according to pretreatment risk of death or bronchopulmonary dysplasia in extremely preterm infants](#)

Erik A Jensen, Laura Elizabeth Wiener, Matthew A Rysavy, et al. *JAMA Netw Open*.

Jensen and colleagues conducted this cohort study on 482 matched pairs of infants from 45 participating US hospitals in the NICHD Neonatal Research Network Generic Database to assess whether risk of death or neurodevelopmental disability associated with systemic corticosteroid vary according to the estimated pretreatment probability of death or grade 2 or 3 BPD in extremely preterm infants. Infants were included in the cohort if they were born at less than 27 weeks' gestation between April 1, 2011, and March 31, 2017; survived the first 7 postnatal days; and had 2-year death or developmental follow-up data collected between January 2013 and December 2019. The risk of death or disability associated with corticosteroid therapy was inversely associated with the estimated pretreatment probability of death or grade 2 or 3 BPD. This risk transitioned from estimated net harm to benefit when the pretreatment risk of death or grade 2 or 3 BPD exceeded 53% (95% CI, 44%-61%).

OTHER NOTEWORTHY PUBLICATIONS – May, 2023

COVID-19

Clinical characteristics and outcomes of SARS-CoV-2 positive neonates born to persons with SARS-CoV-2 infection in pregnancy in Los Angeles County, California, May 22, 2020–February 22, 2021

<https://pubmed.ncbi.nlm.nih.gov/36795577/>

Nirmatrelvir–Ritonavir (Paxlovid) for mild coronavirus disease 2019 (COVID-19) in pregnancy and lactation

<https://pubmed.ncbi.nlm.nih.gov/36928334/>

Sars-Cov-2 exposure from health care workers to infants: effects and outcomes

<https://www.ncbi.nlm.nih.gov/pubmed/34450672>

Adverse effects of COVID-19 pandemic on a multicenter randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/36581761/>

Developmental screening of full-term infants at 16 to 18 months of age after in-utero exposure to maternal SARS-CoV-2 infection

<https://pubmed.ncbi.nlm.nih.gov/36932135/>

Comparing maternal substance use and perinatal outcomes before and during the COVID-19 pandemic

<https://pubmed.ncbi.nlm.nih.gov/36746986/>

Pediatrics

Early antibiotic use and neonatal outcomes among preterm infants without infections

<https://pubmed.ncbi.nlm.nih.gov/37042203/>

Respiratory outcomes for ventilator-dependent children with bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/37122061/>

Real-time intubation and ventilation feedback: a randomized controlled simulation study

<https://pubmed.ncbi.nlm.nih.gov/37038898/>

Journal of Pediatrics

Cost-effectiveness of newborn screening for phenylketonuria and congenital hypothyroidism

<https://www.ncbi.nlm.nih.gov/pubmed/36495999>

Healthcare costs of major morbidities associated with prematurity in US children's hospitals

<https://www.ncbi.nlm.nih.gov/pubmed/36509157>

Evolution of ultrasound-assessed lung aeration and gas exchange in respiratory distress syndrome and transient tachypnea of the neonate

<https://www.ncbi.nlm.nih.gov/pubmed/36493883>

Association of postnatal growth changes and neurodevelopmental outcomes in preterm neonates of <29 weeks' gestation

<https://www.ncbi.nlm.nih.gov/pubmed/36509160>

Substance exposure and adverse neonatal outcomes: a population-based cohort study

<https://www.ncbi.nlm.nih.gov/pubmed/36513212>

Diagnostic performance and patient outcomes with c-reactive protein use in early-onset sepsis evaluations

<https://www.ncbi.nlm.nih.gov/pubmed/36529283>

A randomized trial of an exclusive human milk diet in neonates with single ventricle physiology

<https://www.ncbi.nlm.nih.gov/pubmed/36528055>

Pediatric Research

Sirolimus for diffuse intestinal infantile hemangioma with PHACE features: systematic review

<https://pubmed.ncbi.nlm.nih.gov/36180586>

Neurodevelopmental consequences of preterm punctate white matter lesions: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/36085366>

Multisystem inflammatory syndrome in children (MIS-C) and neonates (MIS-N) associated with COVID-19: optimizing definition and management

<https://pubmed.ncbi.nlm.nih.gov/36050390>

In the developing cerebral cortex: axonogenesis, synapse formation, and synaptic plasticity are regulated by SATB2 target genes

<https://pubmed.ncbi.nlm.nih.gov/36028553>

Pilot dose-ranging of rhIGF-1/rhIGFBP-3 in a preterm lamb model of evolving bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/36030318>

A glucocorticoid-receptor agonist ameliorates bleomycin-induced alveolar simplification in newborn rats

<https://pubmed.ncbi.nlm.nih.gov/36068343>

Early molecular markers of ventilator-associated pneumonia in bronchoalveolar lavage in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36071239>

Infection of the murine placenta by *Listeria monocytogenes* induces sex-specific responses in the fetal brain

<https://pubmed.ncbi.nlm.nih.gov/36127406>

Perinatal exposure to UDCA prevents neonatal cholestasis in Cyp2c70^{-/-} mice with human-like bile acids

<https://pubmed.ncbi.nlm.nih.gov/36151295>

Quantitative lung ultrasound detects dynamic changes in lung recruitment in the preterm lamb

<https://pubmed.ncbi.nlm.nih.gov/36167816>

Metabolomic profiling of intrauterine growth-restricted preterm infants: a matched case-control study

<https://pubmed.ncbi.nlm.nih.gov/36085367>

The association between BMI trajectories and bronchopulmonary dysplasia among very preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36414708>

Characterization of SARS-CoV-2 antibodies in human milk from 21 women with confirmed COVID-19 infection

<https://pubmed.ncbi.nlm.nih.gov/36434204>

Neurodevelopmental correlates of caudate volume in children born at risk of neonatal hypoglycaemia

<https://pubmed.ncbi.nlm.nih.gov/36513807>

Neurometabolic changes in neonates with congenital heart defects and their relation to neurodevelopmental outcome

<https://pubmed.ncbi.nlm.nih.gov/35995938>

A mixed methods study of perceptions of bias among neonatal intensive care unit staff

<https://pubmed.ncbi.nlm.nih.gov/36038641>

Postnatal abnormality in brainstem neural conduction in neonatal bronchopulmonary dysplasia survivors

<https://pubmed.ncbi.nlm.nih.gov/36042331>

Cardiorespiratory measures shortly after extubation and extubation outcomes in extremely preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36057645>

Thermoregulation and golden hour practices in extremely preterm infants: an international survey

<https://pubmed.ncbi.nlm.nih.gov/36075989>

Metabolomic and exposomic biomarkers of risk of future neurodevelopmental delay in human milk

<https://pubmed.ncbi.nlm.nih.gov/36109618>

Neurological examination at 32-weeks postmenstrual age predicts 12-month cognitive outcomes in very preterm-born infants

<https://pubmed.ncbi.nlm.nih.gov/36151299>

Practice variations for fetal and neonatal congenital heart disease within the Children's Hospitals Neonatal Consortium

<https://pubmed.ncbi.nlm.nih.gov/36167818>

Caregiver-reported newborn term and preterm motor abilities: psychometrics of the PediaTracTM Motor domain

<https://pubmed.ncbi.nlm.nih.gov/36180587>

Prenatal and child vitamin D levels and allergy and asthma in childhood

<https://pubmed.ncbi.nlm.nih.gov/36057646>

Dynamic change, influencing factors, and clinical impact of cellular components in human breast milk

<https://pubmed.ncbi.nlm.nih.gov/36151297>

Outcomes of Babies with Opioid Exposure (OBOE): protocol of a prospective longitudinal cohort study

<https://pubmed.ncbi.nlm.nih.gov/36042329>

Archives of Disease in Childhood - Fetal & Neonatal Edition

Diversity and trends of human milk banking: a scoping review from 1946 to 2021

<https://pubmed.ncbi.nlm.nih.gov/36207059/>

Prophylactic surfactant nebulisation for the early aeration of the preterm lung: a randomised clinical trial

<https://pubmed.ncbi.nlm.nih.gov/36424125/>

Exposure to umbilical cord management approaches and death or neurodevelopmental impairment at 22–26 months' corrected age after extremely preterm birth

<https://pubmed.ncbi.nlm.nih.gov/36253076/>

Do newborn infants exhale through the CPAP system? Secondary analysis of a randomised cross-over trial

<https://pubmed.ncbi.nlm.nih.gov/36261145/>

Diaphragm electrical activity during weaning of nasal high-flow therapy in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36223982/>

Nasal high-flow therapy to optimise stability during intubation: the NOSI pilot trial

<https://pubmed.ncbi.nlm.nih.gov/36307187/>

Predicting the likelihood of lower respiratory tract Ureaplasma infection in preterms

<https://pubmed.ncbi.nlm.nih.gov/36261143/>

Mortality and neurodevelopmental outcomes of infants with spontaneous intestinal perforation: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/36328412/>

Changes in the growth of very preterm infants in England 2006–2018

<https://pubmed.ncbi.nlm.nih.gov/36307188/>

Mechanisms affecting the gut of preterm infants in enteral feeding trials: a nested cohort within a randomised controlled trial of lactoferrin

<https://pubmed.ncbi.nlm.nih.gov/36396443/>

Effect of clinical chorioamnionitis on breathing effort in premature infants at birth: a retrospective case–control study

<https://pubmed.ncbi.nlm.nih.gov/36418158/>

Grade 3 school performance among children born preterm: a population-based cohort study

<https://pubmed.ncbi.nlm.nih.gov/36456174/>

Outcome at early school age and adolescence after hypothermia-treated hypoxic–ischaemic encephalopathy: an observational, population-based study

<https://pubmed.ncbi.nlm.nih.gov/36600485/>

Targeted screening for congenital cytomegalovirus infection: clinical, audiological and neuroimaging findings

<https://pubmed.ncbi.nlm.nih.gov/36549893/>

Continuous glucose monitoring during therapeutic hypothermia for hypoxic ischaemic encephalopathy: a feasibility study

<https://pubmed.ncbi.nlm.nih.gov/36600516/>

Dexmedetomidine affects cerebral activity in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/35288449/>

Letter: Lactate acidosis and hypoglycaemia in twin anaemia polycythemia sequence donors

<https://pubmed.ncbi.nlm.nih.gov/35788032/>

Letter: Reliability of respiratory function monitor interpretation for neonatal resuscitation

<https://pubmed.ncbi.nlm.nih.gov/35835540/>

Unusual skin and eyelid changes in a neonate with pseudohypoaldosteronism

<https://pubmed.ncbi.nlm.nih.gov/34911729/>

Extreme preterm neonate with fetal warfarin syndrome

<https://pubmed.ncbi.nlm.nih.gov/34949636/>

Resuscitation of a preterm infant with massive air embolism

<https://pubmed.ncbi.nlm.nih.gov/37277170/>

Journal of Perinatology

Use of human milk and fortification in the NICU

<https://pubmed.ncbi.nlm.nih.gov/36257977/>

Intracranial ultrasound abnormalities and mortality in preterm infants with and without fetal growth restriction stratified by fetal Doppler study results

<https://pubmed.ncbi.nlm.nih.gov/36717608/>

Placental pathology associated with lenticulostriate vasculopathy (LSV) in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36376451/>

Neonatal subgaleal hemorrhage: twenty years of trends in incidence, associations, and outcomes

<https://pubmed.ncbi.nlm.nih.gov/36307481/>

Prevalence of perinatal factors in infants with brachial plexus birth injuries and their association with injury severity

<https://pubmed.ncbi.nlm.nih.gov/36585508/>

Correlation of clinical pain scores with cerebral oxygenation in preterm neonates during acute painful procedures: a prospective observational study

<https://pubmed.ncbi.nlm.nih.gov/36271296/>

Effect of whole body massage on pain scores of neonates during venous puncture and comparison with oral dextrose and Kangaroo care, a randomized controlled evaluator-blind clinical study

<https://pubmed.ncbi.nlm.nih.gov/36450853/>

COMFORTneo scale: a reliable and valid instrument to measure prolonged pain in neonates?

<https://pubmed.ncbi.nlm.nih.gov/36746985/>

A randomized controlled trial of oropharyngeal therapy with mother's own milk for premature infants

<https://pubmed.ncbi.nlm.nih.gov/36596945/>

Growth after implementing a donor breast milk program in neonates <33 weeks gestational age or birthweight <1500 grams: Retrospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/36737571/>

Leveraging mHealth and a milk expression frequency biomarker during postpartum to prolong lactation among parents of critically ill infants: a pilot study

<https://pubmed.ncbi.nlm.nih.gov/36882532/>

Human milk-derived fortifiers are linked with feed extension due to Hypoglycemia in infants <1250 g or <30 weeks: a matched retrospective chart review

<https://pubmed.ncbi.nlm.nih.gov/36991141/>

Early pumping frequency and coming to volume for mother's own milk feeding in hospitalized infants

<https://pubmed.ncbi.nlm.nih.gov/37037987/>

Effects of prophylactic probiotics supplementation on infants born very preterm or very low birth weight

<https://pubmed.ncbi.nlm.nih.gov/36997802/>

Tibial quantitative ultrasound compared to dual-energy X-ray absorptiometry in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/36587053/>

Enteral tube feeding selection at NICU discharge and resource utilization

<https://pubmed.ncbi.nlm.nih.gov/36435925/>

Neonatology

No new content

American Journal of Perinatology

Modifiable factors and delays associated with neonatal deaths and stillbirths in Jordan: findings from facility-based neonatal death and stillbirth audits

<https://www.ncbi.nlm.nih.gov/pubmed/34058760>

Neonatal outcomes of infants born to women on hemodialysis: a single-center, case-control study

<https://www.ncbi.nlm.nih.gov/pubmed/34058762>

Neonatal lymphopenia screening is important for early diagnosis of severe combined immunodeficiency

<https://www.ncbi.nlm.nih.gov/pubmed/34116583>

Fathers' heightened stress responses to recounting their NICU experiences months after discharge: a mixed methods pilot study

<https://www.ncbi.nlm.nih.gov/pubmed/34130316>

Cue-based feeding as intervention to achieve full oral feeding in preterm infants primarily managed with bubble CPAP

<https://www.ncbi.nlm.nih.gov/pubmed/34130317>

A questionnaire assessing utilization of delayed cord clamping

<https://www.ncbi.nlm.nih.gov/pubmed/34144627>

Differences in postmortem investigation following perinatal death

<https://www.ncbi.nlm.nih.gov/pubmed/34126647>

Transcutaneous bilirubin monitoring in preterm infants of 23 to 34 weeks gestation

<https://www.ncbi.nlm.nih.gov/pubmed/34126648>

Can Mozart improve weight gain and development of feeding skills in premature infants? A randomized trial

<https://www.ncbi.nlm.nih.gov/pubmed/34157772>

Journal of Neonatal-Perinatal Medicine

Assessing risks at 22–24 weeks gestation

<https://pubmed.ncbi.nlm.nih.gov/36565069/>

Maternal Health, Neonatology and Perinatology

No relevant articles

Neoreviews

Providing optimal nutrition to very low birthweight infants in the NICU

<https://pubmed.ncbi.nlm.nih.gov/37122057/>

Prenatal diagnosis, management, and treatment of fetal cardiac disease

<https://pubmed.ncbi.nlm.nih.gov/37122058/>

Does preterm status hinder the timely diagnosis of intestinal atresia?

<https://pubmed.ncbi.nlm.nih.gov/37122053/>

An infant with hypotonia and respiratory distress

<https://pubmed.ncbi.nlm.nih.gov/37122059/>

Newborn with a sudden increase in head circumference, wide sutures, and open fontanelles

<https://pubmed.ncbi.nlm.nih.gov/37122056/>

Neonate with hypoglycemia and persistent jaundice

<https://pubmed.ncbi.nlm.nih.gov/37122052/>

A necessary iatrogenic preterm delivery: neonatal implications of antiphospholipid syndrome

<https://pubmed.ncbi.nlm.nih.gov/37122054/>

A term infant with respiratory distress after feeding

<https://pubmed.ncbi.nlm.nih.gov/37122055/>

A neonate with distinct eye movements

<https://pubmed.ncbi.nlm.nih.gov/37122060/>

JAMA Pediatrics

Diagnostic accuracy of portable, handheld point-of-care tests vs laboratory-based bilirubin quantification in neonates: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/36912856>

BMC Pediatrics

Survival of children with trisomy 18 associated with the presence of congenital heart disease and intervention in the Republic of Korea

<https://pubmed.ncbi.nlm.nih.gov/37210512>

Irrational prescription and its costs in neonatal surfactant therapy: public and private hospitals of Iran in 2018

<https://pubmed.ncbi.nlm.nih.gov/37210481>

Analysis of risk factors for parenteral nutrition-associated cholestasis in preterm infants: a multicenter observational study

<https://pubmed.ncbi.nlm.nih.gov/37210514>

Vitamin D supplementation improved physical growth and neurologic development of preterm infants receiving nesting care in the neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/37210477>

Radial nerve palsy caused by a rapidly growing intramuscular hematoma in an infant with biliary atresia: a case report

<https://pubmed.ncbi.nlm.nih.gov/37208637>

Qualitative assessment of infant sleep practices and other risk factors of sudden infant death syndrome (SIDS) among mothers in Lusaka, Zambia

<https://pubmed.ncbi.nlm.nih.gov/37202764>

Prevention of human milk-acquired cytomegalovirus infection in very-low-birth-weight infants

<https://pubmed.ncbi.nlm.nih.gov/37202724>

Early resection of a rare congenital pulmonary airway malformation causing severe progressive respiratory distress in a preterm neonate: a case report and review of the literature

<https://pubmed.ncbi.nlm.nih.gov/37173730>

Implementing an exclusive human milk diet for preterm infants: real-world experience in diverse NICUs

<https://pubmed.ncbi.nlm.nih.gov/37173652>

Clinical characteristics of patients with prenatal hydronephrosis in early postnatal period: a single center retrospective study

<https://pubmed.ncbi.nlm.nih.gov/37173710>

Changes in birth outcomes and utilization of prenatal care during the COVID-19 pandemic in 2020: a secondary analysis of vital statistics in Colombia

<https://pubmed.ncbi.nlm.nih.gov/37173676>

Effect of the change of mechanical ventilation mode on cerebral oxygen saturation level in neonates

<https://pubmed.ncbi.nlm.nih.gov/37165309>

Geographical disparities and determinants of infant mortality in Ethiopia: mapping and spatial analysis using EDHS data

<https://pubmed.ncbi.nlm.nih.gov/37147651>

Neonatal mortality in small for gestational age infants based on reference local newborn curve at secondary and tertiary hospitals in Indonesia

<https://pubmed.ncbi.nlm.nih.gov/37147583>

CPAP failure in the management of preterm neonates with respiratory distress syndrome where surfactant is scarce. A prospective observational study

<https://pubmed.ncbi.nlm.nih.gov/37138252>

The H-HOPE behavioral intervention plus Kangaroo Mother Care increases mother-preterm infant responsivity in Malawi: a prospective cohort comparison

<https://pubmed.ncbi.nlm.nih.gov/37085764>

Pediatric Critical Care Medicine

Extracorporeal membrane oxygenation for neonates with congenital diaphragmatic hernia: prevalence of seizures and outcomes

<https://pubmed.ncbi.nlm.nih.gov/37140337>

New England Journal of Medicine

Blinatumomab added to chemotherapy in infant lymphoblastic leukemia

<https://pubmed.ncbi.nlm.nih.gov/37099340/>

Advances in artificial intelligence for infectious-disease surveillance

<https://pubmed.ncbi.nlm.nih.gov/37099342/>

Neonatal seizures

<https://pubmed.ncbi.nlm.nih.gov/37133587/>

Expectant management or early ibuprofen for patent ductus arteriosus

<https://pubmed.ncbi.nlm.nih.gov/37195958/>

The current and future state of AI interpretation of medical images

<https://pubmed.ncbi.nlm.nih.gov/37224199/>

Lancet

Efficacy of maternal vitamin B12 supplementation for improving infant outcomes in settings with high deficiency

<https://pubmed.ncbi.nlm.nih.gov/37031692/>

The effect of vitamin B12 supplementation during pregnancy on infant growth and development in Nepal: a community-based, double-blind, randomised, placebo-controlled trial

<https://pubmed.ncbi.nlm.nih.gov/37031691/>

The link between respiratory syncytial virus infection during infancy and asthma during childhood

<https://pubmed.ncbi.nlm.nih.gov/37086746/>

The ethical, economic, and developmental imperative to prevent small vulnerable newborns and stillbirths: essential actions to improve the country and global response

<https://pubmed.ncbi.nlm.nih.gov/37167987/>

Respiratory syncytial virus infection during infancy and asthma during childhood in the USA (INSPIRE): a population-based, prospective birth cohort study

<https://pubmed.ncbi.nlm.nih.gov/37086744/>

Small vulnerable newborns—big potential for impact

<https://pubmed.ncbi.nlm.nih.gov/37167991/>

Small babies, big risks: global estimates of prevalence and mortality for vulnerable newborns to accelerate change and improve counting

<https://pubmed.ncbi.nlm.nih.gov/37167989/>

Biological and pathological mechanisms leading to the birth of a small vulnerable newborn

<https://pubmed.ncbi.nlm.nih.gov/37167990/>

Evidence-based antenatal interventions to reduce the incidence of small vulnerable newborns and their associated poor outcomes

<https://pubmed.ncbi.nlm.nih.gov/37167988/>

WHO Global Position Paper and Implementation Strategy on kangaroo mother care call for fundamental reorganisation of maternal–infant care

<https://pubmed.ncbi.nlm.nih.gov/37207686/>

JAMA

Trends in buprenorphine initiation and retention in the United States, 2016–2022

<https://pubmed.ncbi.nlm.nih.gov/37097363/>

Harnessing the promise of artificial intelligence responsibly

<https://pubmed.ncbi.nlm.nih.gov/36972068/>

AI-generated medical advice—GPT and beyond

<https://pubmed.ncbi.nlm.nih.gov/36972070/>

It takes an average of 17 years for evidence to change practice—the burgeoning field of implementation science seeks to speed things up

<https://pubmed.ncbi.nlm.nih.gov/37018006/>

Prednisone vs placebo and live birth in patients with recurrent implantation failure undergoing in vitro fertilization: a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/37129654/>

FDA revokes approval for preterm birth drug makena

<https://pubmed.ncbi.nlm.nih.gov/37043247/>

RSV infection might be resuming prepandemic patterns

<https://pubmed.ncbi.nlm.nih.gov/37075232/>

The economic burden of racial, ethnic, and educational health inequities in the US

<https://pubmed.ncbi.nlm.nih.gov/37191700/>

RSV infection during infancy tied to asthma later

<https://pubmed.ncbi.nlm.nih.gov/37133889/>

BMJ

Delivering quality care to all mothers and newborns requires governments to engage the private sector

<https://pubmed.ncbi.nlm.nih.gov/37147005/>

Maternal RSV vaccine: Further analysis is urged on preterm births

<https://pubmed.ncbi.nlm.nih.gov/37164373/>

Diabetes: Missed routine checks are causing premature deaths in England, charity warns

<https://pubmed.ncbi.nlm.nih.gov/37164372/>

UN warns of preterm birth rates flatlining in every region

<https://pubmed.ncbi.nlm.nih.gov/37164376/>

Pediatric Infectious Disease Journal

Highly active antiretroviral therapy in an extremely low birth weight newborn with in utero transmission of HIV

<https://pubmed.ncbi.nlm.nih.gov/36795550/>

Neonatal Group B Streptococcal infection in Australia: A case–control study

<https://pubmed.ncbi.nlm.nih.gov/36929884/>

Disseminated neonatal monkeypox virus Infection: Case report in Brazil

<https://pubmed.ncbi.nlm.nih.gov/36795540/>

Congenital syphilis: Controversies and questions: A Global Perspective

<https://pubmed.ncbi.nlm.nih.gov/36728111/>

Congenital Zika Virus Syndrome and Autoimmunity: Two case reports of type 1 diabetes mellitus

<https://pubmed.ncbi.nlm.nih.gov/36795588/>

Pediatric Cardiology

No relevant articles

Pediatric Neurology

Neonatal hypertonia and progressive respiratory failure due to novel heterozygous mutation in ATAD1

<https://www.ncbi.nlm.nih.gov/pubmed/36933275>

Obstetrics and Gynecology

Mpox (Monkeypox) infection during pregnancy

<https://pubmed.ncbi.nlm.nih.gov/36928418/>

American Journal of Obstetrics & Gynecology

Criteria for placental examination for obstetrical and neonatal providers

<https://pubmed.ncbi.nlm.nih.gov/36549567/>

Copy number variants and fetal growth in stillbirths

<https://pubmed.ncbi.nlm.nih.gov/36356697/>

Fetal heart rate evolution and brain imaging findings in preterm infants with severe cerebral palsy

<https://pubmed.ncbi.nlm.nih.gov/36370872/>

Reductions in stillbirths and preterm birth in COVID-19–vaccinated women: a multicenter cohort study of vaccination uptake and perinatal outcomes

<https://pubmed.ncbi.nlm.nih.gov/36336084>

Risks and pregnancy outcome after fetal reduction in dichorionic twin pregnancies: a Danish national retrospective cohort study

<https://pubmed.ncbi.nlm.nih.gov/36441092>

Hospital Pediatrics

Characterization of birth hospitalizations in the United States

<https://pubmed.ncbi.nlm.nih.gov/37013702>

A quality improvement project to reduce antibiotic exposure in premature neonates

<https://pubmed.ncbi.nlm.nih.gov/37017004>

BASIC SCIENCE SELECTIONS

The metabolic and lipidomic profiling of the effects of tracheal occlusion in a rabbit model of congenital diaphragmatic hernia

<https://www.ncbi.nlm.nih.gov/pubmed/36801071>

A Tracheal Aspirate-derived Airway Basal Cell Model Reveals a Proinflammatory Epithelial Defect in Congenital Diaphragmatic Hernia

Single-cell atlas of the human neonatal small intestine affected by necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/37205711>

Dedifferentiated fat cells administration ameliorates abnormal expressions of fatty acids metabolism-related protein expressions and intestinal tissue damage in experimental necrotizing enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/37217485>

Rad1 attenuates DNA double-strand breaks and cell cycle arrest in type II alveolar epithelial cells of rats with bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/37226090>

MSC-EXO and tempol ameliorate bronchopulmonary dysplasia in newborn rats by activating HIF-1alpha

<https://www.ncbi.nlm.nih.gov/pubmed/36650825>

The protective effects of glutamine against bronchopulmonary dysplasia are associated with MKP-1/MAPK/cPLA2 signaling mediated NF-kappaB pathway

<https://www.ncbi.nlm.nih.gov/pubmed/37098740>

ADDITIONAL JOURNAL SELECTIONS

Preventing severe necrotizing enterocolitis: Propensity score analysis of interventions associated with surgical NEC or NEC-associated death

<https://www.ncbi.nlm.nih.gov/pubmed/36805136>

Lung Transplantation for Bronchopulmonary Dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/36610665>

Extracorporeal Membrane Oxygenation for Neonates With Congenital Diaphragmatic Hernia: Prevalence of Seizures and Outcomes

<https://www.ncbi.nlm.nih.gov/pubmed/37140337>

Respiratory physiology during NAVA ventilation in neonates born with a congenital diaphragmatic hernia: The “NAVA-diaph” pilot study

<https://www.ncbi.nlm.nih.gov/pubmed/36807570>

Prophylactic surfactant nebulisation for the early aeration of the preterm lung: a randomised clinical trial

<https://www.ncbi.nlm.nih.gov/pubmed/36424125>

Assessment of Corticosteroid Therapy and Death or Disability According to

Pretreatment Risk of Death or Bronchopulmonary Dysplasia in Extremely Preterm Infants

<https://www.ncbi.nlm.nih.gov/pubmed/37155165>

The association between BMI trajectories and bronchopulmonary dysplasia among very preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/36414708>

Neonatal outcomes of congenital diaphragmatic hernia in full term versus early term deliveries: A systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/37127552>

Citicoline in hypoxic ischemic encephalopathy in neonates: a randomized controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/37173784>

Platelet parameters as biomarker for bronchopulmonary dysplasia in very low birth weight neonates in the first two weeks of life

<https://www.ncbi.nlm.nih.gov/pubmed/37155211>

Fetal and neonatal alloimmune thrombocytopenia: Current pathophysiological insights and perspectives for future diagnostics and treatment

<https://www.ncbi.nlm.nih.gov/pubmed/36581513>

Mixed Feedings and Necrotizing Enterocolitis: The Proportion of Human Milk Matters

<https://www.ncbi.nlm.nih.gov/pubmed/37184535>