

Publications Working Group

[Ayan Rajgarhia](#), Page Editor - Children's Mercy Hospital

Jayasree Nair - University at Buffalo

Craig Nankervis - Nationwide Children's Hospital

Christopher Rouse - The Elliot Hospital + USUHS

Jeffrey Shenberger - Brenner Children's Hospital/Wake Forest School of Medicine

Mark Weems - University of Tennessee Health Science Center

Ranjith Kamity - NYU Winthrop Hospital

American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN®

Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – April 2020

[Therapeutic hypothermia for hypoxic-ischemic encephalopathy after perinatal sentinel events: less brain injury on MRI and improved neurodevelopmental outcome at 18-36 months.](#)

Grass B, El Shahed A, Ly LG, et al. J Perinatol.

The authors studied the association between perinatal sentinel events (PSE) and brain MRI/neurodevelopmental outcomes in neonates with hypoxic-ischemic encephalopathy (HIE) receiving therapeutic hypothermia (TH). This retrospective single-center study evaluated perinatal history, brain MRI, and neurodevelopmental outcomes in 182 neonates with 53 (29%) and without PSE and 129 (71%). Neonates with PSE had more normal MRIs (76%) compared with neonates without PSE (55%). Neonates with HIE receiving TH after PSE had less severe injury on brain MRI after rewarming, and improved motor and language outcomes at 18-36 months.

[COVID19 during pregnancy: a systematic review of reported cases](#)

Della Gatta AN, Rizzo R, Pilu G, et al. Am J Obstet Gynecol.

The authors conducted a systematic review of the outcomes reported for pregnant patients with COVID 19 diagnosed with nucleic acid test. They identified 6 studies including 51 women, of which 46 were delivered via cesarean section and 2 vaginally while there was 1 stillbirth, 1 neonatal death, and 1 patient who remained pregnant. They concluded that although vertical transmission has not been confirmed, elective cesarean is common and may not be warranted.

[Nanoparticle delivery of proangiogenic transcription factors into the neonatal circulation inhibits alveolar simplification caused by hyperoxia](#)

Bolte C, Ustiyani V, Ren X, et al. Am J Respir Crit Care Med.

Given the potential protective role of VEGF in BPD, the authors investigated the potential for nanoparticle delivery of the downstream VEGF targets, FOXM1 and FOXF1, to improve lung structure and function in mouse BPD model. They found that nanoparticle delivery of either FOXM1 or FOXF1 did not protect endothelial cells from apoptosis caused by hyperoxia but increased proliferation and angiogenesis. FOXM1 and FOXF1 improved elastin organization, decreased alveolar simplification and preserved lung function into adulthood. They speculate that delivery of proangiogenic transcription factors may be a promising therapy for BPD.

[Reduced antibiotic exposure by serial physical examinations in term neonates at risk of early-onset sepsis](#)

Vatne A, Klingenberg C, Øymar K, et al. *Pediatr Infect Dis J*.

Using a quality-improvement model, the authors used serial physical exams to safely reduce early antibiotic exposure in a group of neonates ≥ 37 weeks. The baseline period followed NICE guidelines and used antibiotics for 36-48 hours for any perinatal risk factor, clinical signs of sepsis, or elevated CRP. The post-implementation period required hourly physical exams by nurses for the first 24-48 hours. Antibiotics were started if the infant had specific "mild" symptoms that lasted $>2-4$ hours, developed specific "alarming" symptoms, or became clinically ill in the judgement of the neonatologist. Pre- and post-implementation periods each had >8000 infants with equal rates of culture positive sepsis. Culture-negative sepsis, exposure to antibiotics, NICU admissions, days of antibiotic exposure, and number of CRPs collected were all significantly reduced. Median time to start antibiotics in EOS cases was also reduced from 14 to 7 hours. Mortality, meningitis, and restarting antibiotics were not different. They conclude that serial physical exam in term neonates reduced the burden of antibiotic exposure by 57%, without delay of antibiotic treatment of infected neonates or sepsis-related mortality.

[Sustained inflation vs standard resuscitation for preterm infants a systematic review and meta-analysis](#)

Foglia EE, Te Pas AB, Kirpalani H, et al. *JAMA Pediatr*.

This is a systematic review and meta-analysis of sustained inflation vs. intermittent PPV/CPAP in preterm infants. 9 RCTs (1406 patients) were included that compared sustained inflation $>5s$ to standard resuscitation in preterm infants <37 weeks. There was no difference in the primary outcome, death before hospital discharge, in either total analysis or any gestational age subgroup. Sustained inflation was associated with increased risk of death in the 1st 2 days (risk difference, 3.1%; 95%CI, 0.9%-5.3%), especially in the youngest infants, 23-24 6/7 weeks; this finding was heavily influenced by the SAIL trial that made up 30% of the patients in this meta-analysis. Subgroup analysis shows little evidence additional harm or benefit from sustained inflation. The authors conclude the findings do not support the routine use of sustained inflation for preterm births.

[Effect of prebiotic and probiotic supplementation on neurodevelopment in preterm very low birth weight infants: findings from a meta-analysis](#)

Upadhyay RP, Taneja S, Chowdhury R, et al. *Pediatr Res*.

This article reviews the effect of prebiotic and/or probiotic supplementation in preterm VLBW infants on their neurodevelopmental outcomes. Seven RCTs were included for review. All, except one, were done in preterms <33 weeks of gestation with outcomes analyzed at $\geq 18-22$ months of corrected age. Interventions did not decrease or increase the risk of cognitive and motor impairment, cerebral palsy, visual, and hearing impairment. The review concludes that the quality of evidence was low to very low, and limited evidence from RCTs does not demonstrate a difference in neurodevelopmental outcomes between prebiotic/probiotic treated and untreated control groups.

[Placental pathology and neonatal brain MRI in a randomized trial of erythropoietin for hypoxic-ischemic encephalopathy](#)

Wu YW, Goodman AM, Chang T, et al. *Pediatr Res*.

The authors report a phase II clinical trial ancillary study correlating placental abnormalities with MRI brain injury and response to erythropoietin treatment in newborns with moderate/severe encephalopathy who received hypothermia. Placental abnormalities were seen in 54% (19/35) patients. MRI subcortical injury was less common in neonates with placental abnormality (26 vs 69%, $p=0.02$). Erythropoietin treatment was associated with a lower global brain injury score (median 2.0 vs. 11.5, $P =$

0.003). The study concluded that Erythropoietin treatment was associated with less brain injury only in patients whose placentas exhibited no chronic histologic changes.

[Randomised trial of cord clamping at very preterm birth: outcomes at 2 years](#)

Armstrong-Buisseret L, Powers K, Dorling J, et al. Arch Dis Child Fetal Neonatal Ed.

This study evaluated 218 infants at 8 UK tertiary facilities expected to be born before 32+0 weeks gestation who were available for follow-up at 2 years of age. Neonates were randomized to receive either deferred cord clamping (≥ 2 min) and immediate neonatal care with cord intact or immediate clamping (≤ 20 sec) and immediate neonatal care after clamping. Of the group randomized to deferred clamping, 24/115 (21%) children died or had an adverse neurodevelopmental outcome compared with 35/103 (34%) randomized to immediate clamping; risk ratio (RR) 0.61 (95% CI 0.39 to 0.96); risk difference (RD) -13% (95% CI -25% to -1%). The authors concluded that for children born very premature, deferred clamping with immediate neonatal care with cord intact may reduce the risk of death or adverse neurodevelopmental outcome at 2 years of age.

[Neurodevelopmental outcomes of neonates randomized to morphine or methadone for treatment of neonatal abstinence syndrome](#)

Czynski AJ, Davis JM, Dansereau LM, et al. J Pediatr.

In this randomized controlled trial, the authors investigated the effects of pharmacological treatment of neonatal abstinence syndrome on neurodevelopmental outcome. 116 infants from 8 sites with prenatal methadone or buprenorphine exposure received either morphine or methadone and neurodevelopmental outcomes were assessed at discharge and at 18 months. While no differences were noted in primary analyses, infants on adjunctive phenobarbital had lower Bayley Scales of Infant and Toddler Development scores and more behavior problems on the Child behavior checklist (CBCL) at 18 months. Internalizing and total behavior problems were associated with use of phenobarbital, maternal psychological distress and infant medical problems, while externalizing problems were associated with maternal psychological distress and continued maternal substance use. The authors concluded that similar outcomes were noted with morphine or methadone treatment, while need for phenobarbital, overall health of the infant, and postnatal caregiving environment could affect neurodevelopmental outcomes.

[Delayed achievement of oral feedings is associated with adverse neurodevelopmental outcomes at 18 to 26 months follow-up in preterm infants](#)

Lainwala S, Kosyakova N, Power K, et al. Am J Perinatol.

This was a retrospective study comparing neurodevelopmental outcomes in 372 preterm infants < 32 wks GA at 18-26 month corrected age, who either did or did not achieve full oral feeds by 40 weeks PMA. Achievement of full oral feedings was defined as oral intake > 130 mL/kg/d for > 72 hours by 40 weeks PMA. Incidence of cognitive, language, or motor delay, or cerebral palsy at 18 to 26 months CA was compared in multivariable analyses. The authors reported that those achieving full oral feedings had lower incidence of any adverse neurodevelopmental outcome and specifically, decreased odds of cognitive, language, and motor delays as well as cerebral palsy. They suggest that inability to fully feed orally at 40 weeks PMA could be used as a simple marker for adverse neurodevelopmental outcomes.

COVID-19

Vertical transmission of coronavirus disease 19 (COVID-19) from infected pregnant mothers to neonates: a review

<https://www.ncbi.nlm.nih.gov/pubmed/32238084>

Clinical characteristics and risk assessment of newborns born to mothers with COVID-19

<https://www.ncbi.nlm.nih.gov/pubmed/32302955>

COVID19 during pregnancy: a systematic review of reported cases

<https://www.ncbi.nlm.nih.gov/pubmed/32311350>

Pediatrics

The infantile hemangioma referral score: a validated tool for physicians

<https://www.ncbi.nlm.nih.gov/pubmed/32161112>

Predicting school-aged cognitive impairment in children born very preterm

<https://www.ncbi.nlm.nih.gov/pubmed/32144122>

Breastfeeding initiation, duration, and supplementation among Mexican-origin women in Texas

<https://www.ncbi.nlm.nih.gov/pubmed/32188643>

Validation of a prediction rule for mortality in congenital diaphragmatic hernia

<https://www.ncbi.nlm.nih.gov/pubmed/32139379>

Pediatricians are perfectly positioned to help mothers reach their breastfeeding goals

<https://www.ncbi.nlm.nih.gov/pubmed/32188644>

Evidence-based updates on the first week of exclusive breastfeeding among infants ≥ 35 weeks

<https://www.ncbi.nlm.nih.gov/pubmed/32161111>

STEPP IN: working together to keep infants warm in the perioperative period

<https://www.ncbi.nlm.nih.gov/pubmed/32193210>

Journal of Pediatrics

Implications of atrial-level shunting by echocardiography in newborns with congenital diaphragmatic hernia

<https://www.ncbi.nlm.nih.gov/pubmed/32014282>

Mortality and neurodevelopmental outcomes in the heart rate characteristics monitoring randomized controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/32033793>

Randomized controlled trial of bovine lactoferrin for prevention of sepsis and neurodevelopment impairment in infants weighing less than 2000 grams

<https://www.ncbi.nlm.nih.gov/pubmed/32037149>

Acute kidney injury during treatment with intravenous acyclovir for suspected or confirmed neonatal herpes simplex virus infection

<https://www.ncbi.nlm.nih.gov/pubmed/32037154>

Performance of pediatric systemic inflammatory response syndrome and organ dysfunction criteria in late-onset sepsis in a quaternary neonatal intensive care unit: a case-control study

<https://www.ncbi.nlm.nih.gov/pubmed/32037153>

Early hyperbilirubinemia in neonates with down syndrome

<https://www.ncbi.nlm.nih.gov/pubmed/32014279>

Neurodevelopmental outcomes of neonates randomized to morphine or methadone for treatment of neonatal abstinence syndrome

<https://www.ncbi.nlm.nih.gov/pubmed/31987653>

Behavior profiles at 2 years for children born extremely preterm with bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/32008764>

Longitudinal analysis of ventilation perfusion mismatch in congenital diaphragmatic hernia survivors

<https://www.ncbi.nlm.nih.gov/pubmed/31704054>

Inhaled nitric oxide is associated with improved oxygenation in a subpopulation of infants with congenital diaphragmatic hernia and pulmonary hypertension

<https://www.ncbi.nlm.nih.gov/pubmed/31706636>

Standardizing safety assessment and reporting for neonatal clinical trials

[https://www.jpeds.com/article/S0022-3476\(19\)31295-8/fulltext](https://www.jpeds.com/article/S0022-3476(19)31295-8/fulltext)

Medication utilization at school age for children born preterm

<https://www.ncbi.nlm.nih.gov/pubmed/31910993>

Predictors of mortality after primary discharge from hospital in patients with esophageal atresia

<https://www.ncbi.nlm.nih.gov/pubmed/31952847>

Pediatric Research

Effect of prebiotic and probiotic supplementation on neurodevelopment in preterm very low birth weight infants: findings from a meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/30353041/>

Free radicals and neonatal encephalopathy: mechanisms of injury, biomarkers, and antioxidant treatment perspectives

<https://pubmed.ncbi.nlm.nih.gov/31655487>

Lyophilization of human amniotic fluid is feasible without affecting biological activity

<https://pubmed.ncbi.nlm.nih.gov/31756731>

The fundamental building blocks of cortical development are established in human exencephaly

<https://pubmed.ncbi.nlm.nih.gov/31783397>

Sex-specific relationships between early nutrition and neurodevelopment in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/31783398/>

Placental pathology and neonatal brain MRI in a randomized trial of erythropoietin for hypoxic–ischemic encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/31261373/>

Impact of multiple placental pathologies on neonatal death, bronchopulmonary dysplasia, and neurodevelopmental impairment in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/31812153>

Circulating growth-and-differentiation factor-15 in early life: relation to prenatal and postnatal growth and adiposity measurements

<https://pubmed.ncbi.nlm.nih.gov/31645058>

Predicting intestinal recovery after necrotizing enterocolitis in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/31649338>

Changepoint analysis of gestational age and birth weight: proposing a refinement of Diagnosis Related Groups

<https://pubmed.ncbi.nlm.nih.gov/31715621/>

Microbial invasion of the amniotic cavity is associated with impaired cognitive and motor function at school age in preterm children

<https://pubmed.ncbi.nlm.nih.gov/31711067>

Early prediction of unilateral cerebral palsy in infants at risk: MRI versus the hand assessment for infants

<https://pubmed.ncbi.nlm.nih.gov/31722367>

Surfactant and budesonide for respiratory distress syndrome: an observational study

<https://pubmed.ncbi.nlm.nih.gov/31715622>

Retinol-binding protein 4, fetal overgrowth and fetal growth factors

<https://pubmed.ncbi.nlm.nih.gov/31785592>

Lactobacilli-dominated cervical microbiota in women with preterm prelabor rupture of membranes

<https://pubmed.ncbi.nlm.nih.gov/31791041>

Supplement:

Cranial ultrasound by neonatologists (PDF)

<https://www.nature.com/articles/s41390-020-0779-8.pdf>

Review: State-of-the-art neonatal cerebral ultrasound: technique and reporting (PDF)

<https://www.nature.com/articles/s41390-020-0776-y.pdf>

Review: Cranial ultrasound findings in preterm germinal matrix haemorrhage, sequelae and outcome (PDF)

<https://www.nature.com/articles/s41390-020-0780-2.pdf>

Review: Ultrasound of acquired posterior fossa abnormalities in the newborn (PDF)

<https://www.nature.com/articles/s41390-020-0778-9.pdf>

Review: Preterm white matter injury: ultrasound diagnosis and classification (PDF)

<https://www.nature.com/articles/s41390-020-0781-1.pdf>

Systematic review: Diagnostic and predictive value of Doppler ultrasound for evaluation of the brain circulation in preterm infants: a systematic review (PDF)

<https://www.nature.com/articles/s41390-020-0777-x.pdf>

The development and validation of a cerebral ultrasound scoring system for infants with hypoxic-ischaemic encephalopathy (PDF)

<https://www.nature.com/articles/s41390-020-0782-0.pdf>

Archives of Disease in Childhood - Fetal & Neonatal Edition

A time for hope: guidelines for the perinatal management of extremely preterm birth

<https://www.ncbi.nlm.nih.gov/pubmed/32156712>

Perinatal management of extreme preterm birth before 27 weeks of gestation: a framework for practice

<https://www.ncbi.nlm.nih.gov/pubmed/31980443>

Recommendations in the face of uncertainty: should extremely preterm infants receive chest compressions and/or epinephrine in the delivery room?

<https://www.ncbi.nlm.nih.gov/pubmed/31980444>

Burden of hypoxia and intraventricular haemorrhage in extremely preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/31256012>

Tidal volumes at birth as predictor for adverse outcome in congenital diaphragmatic hernia

<https://www.ncbi.nlm.nih.gov/pubmed/31256011>

Volume-targeted ventilation with a Fabian ventilator: maintenance of tidal volumes and blood CO₂

<https://www.ncbi.nlm.nih.gov/pubmed/31285225>

Observational study of cytomegalovirus from breast milk and necrotising enterocolitis

<https://www.ncbi.nlm.nih.gov/pubmed/31326920>

Short-term rate of milk synthesis and expression interval of preterm mothers

<https://www.ncbi.nlm.nih.gov/pubmed/31296697>

Association of small for gestational age with retinopathy of prematurity: a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/31326921>

Feasibility of automated insulin delivery guided by continuous glucose monitoring in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/31399480>

Effect of monitor positioning on visual attention and situation awareness during neonatal resuscitation: a randomised simulation study

<https://www.ncbi.nlm.nih.gov/pubmed/31375503>

Randomised trial of cord clamping at very preterm birth: outcomes at 2 years

<https://www.ncbi.nlm.nih.gov/pubmed/31371434>

Thrombosis after umbilical venous catheterisation: prospective study with serial ultrasound

<https://www.ncbi.nlm.nih.gov/pubmed/31391204>

Behavioural outcome in twin–twin transfusion syndrome survivors treated with laser surgery

<https://www.ncbi.nlm.nih.gov/pubmed/31371433>

Deferred consent for delivery room studies: the providers' perspective

<https://www.ncbi.nlm.nih.gov/pubmed/31427459>

Using intermittent pulse oximetry to guide neonatal oxygen therapy in a low-resource context

<https://www.ncbi.nlm.nih.gov/pubmed/31462405>

Initiating resuscitation before umbilical cord clamping in infants with congenital diaphragmatic hernia: a pilot feasibility trial

<https://www.ncbi.nlm.nih.gov/pubmed/31462406>

Consensus outcome rating for international neonatal resuscitation guidelines

<https://www.ncbi.nlm.nih.gov/pubmed/30926715>

Crying and breathing by new-born preterm infants after early or delayed cord clamping

<https://www.ncbi.nlm.nih.gov/pubmed/31085675>

Postnatally acquired cytomegalovirus infection in extremely premature infants: how best to manage?

<https://www.ncbi.nlm.nih.gov/pubmed/31615830>

Letter: Patent ductus arteriosus closure: why same-dose oral ibuprofen is superior to intravenous

<https://www.ncbi.nlm.nih.gov/pubmed/31586941>

Letter: Prognostic value of prenatally detected small or absent fetal stomach with particular reference to oesophageal atresia

<https://www.ncbi.nlm.nih.gov/pubmed/31744858>

Desmoid tumour: rare presentation following neonatal lumbar puncture

<https://www.ncbi.nlm.nih.gov/pubmed/32029529>

Bilateral chest wall mesenchymal hamartomas masquerading as fetal hydrops in utero

<https://www.ncbi.nlm.nih.gov/pubmed/32041721>

Intraperitoneal infiltration of total parenteral nutrition related to a peripherally inserted central catheter in the saphenous vein

<https://www.ncbi.nlm.nih.gov/pubmed/31822481>

Journal of Perinatology

Risk-adjusted/neuroprotective care services in the NICU: the elemental role of the neonatal therapist (OT, PT, SLP)

<https://www.ncbi.nlm.nih.gov/pubmed/31992820>

Point-of-care ultrasound use in umbilical line placement: a review

<https://www.ncbi.nlm.nih.gov/pubmed/31758061>

Umbilical venous catheter insertion depth estimation using birth weight versus surface measurement formula: a randomized controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/31383945>

Umbilical catheter-associated complications in a level IV neonatal intensive care unit

<https://www.ncbi.nlm.nih.gov/pubmed/31911645>

Risk factors for peripherally inserted central catheter complications in neonates

<https://www.ncbi.nlm.nih.gov/pubmed/31911643>

Current training in percutaneously inserted central catheter (PICC) placement and maintenance for neonatal–perinatal medicine fellows

<https://www.ncbi.nlm.nih.gov/pubmed/31932714>

Nasal-tragus length for estimating optimal insertion depth of endotracheal tube in Thai neonates

<https://www.ncbi.nlm.nih.gov/pubmed/31558806>

Neonatal intensive care unit incubators reduce language and noise levels more than the womb

<https://www.ncbi.nlm.nih.gov/pubmed/32020037>

Natriuretic peptides in bronchopulmonary dysplasia: a systematic review

<https://www.ncbi.nlm.nih.gov/pubmed/31925319>

Timing of postnatal steroids for bronchopulmonary dysplasia: association with pulmonary and neurodevelopmental outcomes

<https://www.ncbi.nlm.nih.gov/pubmed/32020038>

Urinary NT-proBNP as a potential noninvasive biomarker for screening of pulmonary hypertension in preterm infants: a pilot study

<https://www.ncbi.nlm.nih.gov/pubmed/31911650>

Therapeutic hypothermia for hypoxic-ischemic encephalopathy after perinatal sentinel events: less brain injury on MRI and improved neurodevelopmental outcome at 18–36

months^[SEP] <https://www.ncbi.nlm.nih.gov/pubmed/32051541>

Prenatal selective serotonin reuptake inhibitors and therapeutic hypothermia for suspected hypoxic ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/31767980>

Preterm infant feeding performance at term equivalent age differs from that of full-term infants

<https://www.ncbi.nlm.nih.gov/pubmed/32066844>

Optimizing individual nutrition in preterm very low birth weight infants: double-blinded randomized controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/32071367>

Macronutrient analysis of donor human milk labelled as 24 kcal/oz

<https://www.ncbi.nlm.nih.gov/pubmed/32071366>

Prevalence and predictors of donor milk programs among U.S. advanced neonatal care facilities

<https://www.ncbi.nlm.nih.gov/pubmed/32103161>

A multidisciplinary quality improvement effort to reduce bronchopulmonary dysplasia incidence

<https://www.ncbi.nlm.nih.gov/pubmed/31907398>

Neonatology

Commentary on “Frenotomy for tongue-tie in newborn infants”

<https://www.ncbi.nlm.nih.gov/pubmed/31112986>

Commentary on “Pulse oximetry screening for critical congenital heart defects”

<https://www.ncbi.nlm.nih.gov/pubmed/31132770>

Randomised controlled trials for informing perinatal care

<https://www.ncbi.nlm.nih.gov/pubmed/31137030>

Developmental differences in platelet inhibition response to prostaglandin E1

<https://www.ncbi.nlm.nih.gov/pubmed/31786577>

Early versus delayed fortification of human milk in preterm infants: a systematic review

<https://www.ncbi.nlm.nih.gov/pubmed/31326969>

Early predictors for INTubation-SURfactant-Extubation failure in preterm infants with neonatal respiratory distress syndrome: a systematic review

<https://www.ncbi.nlm.nih.gov/pubmed/31437836>

An overview of systematic reviews of randomized-controlled trials for preventing necrotizing enterocolitis in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/31838477>

Reduced cerebellar size at term-equivalent age is related to a 17% lower mental developmental index in very preterm infants without brain injury

<https://www.ncbi.nlm.nih.gov/pubmed/31480070>

Comparison of neonatal intubation practice and outcomes between the neonatal intensive care unit and delivery room

<https://www.ncbi.nlm.nih.gov/pubmed/31563910>

Diagnosis of bilirubin encephalopathy in preterm infants with dyskinetic cerebral palsy

<https://www.ncbi.nlm.nih.gov/pubmed/31587006>

Lean tissue deficit in preterm infants persists up to 4 months of age: results from a Swedish longitudinal study

<https://www.ncbi.nlm.nih.gov/pubmed/31822002>

Prevalence of acute kidney injury in neonates with congenital diaphragmatic hernia

<https://www.ncbi.nlm.nih.gov/pubmed/31639793>

Feeding tolerance, intestinal motility, and superior mesenteric artery blood flow in infants with gastroschisis

<https://www.ncbi.nlm.nih.gov/pubmed/31851996>

Ventilation with 18, 21, or 100% oxygen during cardiopulmonary resuscitation of asphyxiated piglets: a randomized controlled animal trial

<https://www.ncbi.nlm.nih.gov/pubmed/31896112>

Saltatory pattern of fetal heart rate during labor Is a sign of fetal hypoxia

<https://www.ncbi.nlm.nih.gov/pubmed/31846958>

Increased carbon monoxide washout rates in newborn infants

<https://www.ncbi.nlm.nih.gov/pubmed/31634890>

Evidence-based medicine in neonatology: the need for multifaceted improvements

<https://www.ncbi.nlm.nih.gov/pubmed/31454816>

Decreasing number of conclusive neonatal reviews: increasing role for shared decision-making?

<https://www.ncbi.nlm.nih.gov/pubmed/31487740>

Newborn with perinatal naphthalene toxicity after maternal ingestion of mothballs during pregnancy

<https://www.ncbi.nlm.nih.gov/pubmed/31751989>

American Journal of Perinatology

Impact of maternal obesity on perinatal outcomes in preterm prelabor rupture of membranes ≥ 34 weeks

<https://www.ncbi.nlm.nih.gov/pubmed/31739369>

Delayed achievement of oral feedings is associated with adverse neurodevelopmental outcomes at 18 to 26 months follow-up in preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/30822799>

The utility of soluble cd14 subtype in early diagnosis of culture-proven early-onset neonatal sepsis and prediction of outcome

<https://www.ncbi.nlm.nih.gov/pubmed/30900217>

Pediatric residency graduates preparedness for neonatal-perinatal medicine fellowship: the perspective of first-year fellows

<https://www.ncbi.nlm.nih.gov/pubmed/30895576>

Utilizing video versus direct laryngoscopy to intubate simulated newborns while contained within the incubator: a randomized crossover study

<https://www.ncbi.nlm.nih.gov/pubmed/30895579>

Parental perceptions and behaviors regarding child weight status among toddlers born preterm

<https://www.ncbi.nlm.nih.gov/pubmed/30919396>

Correlation between invasive and noninvasive blood pressure measurements in extremely low gestational age newborns

<https://www.ncbi.nlm.nih.gov/pubmed/30895581>

Journal of Neonatal-Perinatal Medicine

No new content

Maternal Health, Neonatology and Perinatology

Negativity about the outcomes of extreme prematurity a persistent problem - a survey of health care professionals across the North Queensland region (PDF)

<https://mhnjournal.biomedcentral.com/track/pdf/10.1186/s40748-020-00116-0>

Neoreviews

Historical perspectives: shared decision making in the NICU

<https://neoreviews.aappublications.org/content/21/4/e217>

Ventilation strategies in severe bronchopulmonary dysplasia

<https://neoreviews.aappublications.org/content/21/4/e226>

Neonatal partial liquid ventilation for the treatment and prevention of bronchopulmonary dysplasia

<https://neoreviews.aappublications.org/content/21/4/e238>

Strategies to prevent severe retinopathy of prematurity: a 2020 update and meta-analysis

<https://neoreviews.aappublications.org/content/21/4/e249>

Case 1: a term male infant with hypoglycemia and hyperbilirubinemia as initial presentation

<https://neoreviews.aappublications.org/content/21/4/e264>

Case 2: a term neonate with quiet tachypnea progressing to tachycardia and shock

<https://neoreviews.aappublications.org/content/21/4/e267>

Case 3: unexpected respiratory failure and hypotonia in a term neonate

<https://neoreviews.aappublications.org/content/21/4/e272>

Strip of the month: preterm premature rupture of membranes at 27 weeks

<https://neoreviews.aappublications.org/content/21/4/e275>

Visual diagnosis: term newborn with peeling erythematous rash

<https://neoreviews.aappublications.org/content/21/4/e282>

Prenatal diagnosis of a ventral abdominal wall defect.

<https://neoreviews.aappublications.org/content/21/4/e286>

JAMA Pediatrics

It's time to reevaluate the apgar score

<https://www.ncbi.nlm.nih.gov/pubmed/32091567>

Neonatal mortality after interhospital transfer of pregnant women for imminent very preterm birth in Illinois

<https://www.ncbi.nlm.nih.gov/pubmed/32065614>

Comparative accuracy of developmental screening questionnaires

<https://www.ncbi.nlm.nih.gov/pubmed/32065615>

Sustained inflation vs standard resuscitation for preterm infants a systematic review and meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/32011661>

BMC Pediatrics

Health workers' views on factors affecting caregiver engagement with bubble CPAP (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02088-8>

Small for gestational age is a risk factor for thyroid dysfunction in preterm newborns (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02089-7>

Autosomal dominant transmission of transient neonatal lactic acidosis: a case report (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02085-x>

Oral nystatin prophylaxis to prevent systemic fungal infection in very low birth weight preterm infants: a randomized controlled trial (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02074-0>

Study protocol: NeoCLEAR: Neonatal Champagne Lumbar punctures Every time – An RCT: a multicentre, randomised controlled 2 × 2 factorial trial to investigate techniques to increase lumbar puncture success (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02050-8>

Comparison of facilitated tucking and oral dextrose in reducing the pain of heel stick in preterm infants: a randomized clinical trial (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-2020-7>

Cause and predictors of neonatal mortality among neonates admitted to neonatal intensive care units of public hospitals in eastern Ethiopia: a facility-based prospective follow-up study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02051-7>

Longer shared parental leave is associated with longer duration of breastfeeding: a cross-sectional study among Swedish mothers and their partners (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02065-1>

The effect of sleeping position on heart rate variability in newborns (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02056-2>

Community initiated kangaroo mother care and early child development in low birth weight infants in India-a randomized controlled trial (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02046-4>

Prevalence of neonatal hypothermia and its associated factors in East Africa: a systematic review and meta-analysis (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02024-w>

Feasibility of combining two individualized lung recruitment maneuvers at birth for very low gestational age infants: a retrospective cohort study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02055-3>

Parents' and healthcare professionals' perceptions of the use of live video recording in neonatal units: a focus group study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02041-9>

Pediatric Critical Care Medicine

Moral distress of clinicians in Canadian pediatric and neonatal ICU's

<https://pubmed.ncbi.nlm.nih.gov/31725530>

Prevalence and outcomes of balloon atrial septostomy in neonates with transposition of great arteries

<https://pubmed.ncbi.nlm.nih.gov/31688810>

Biomarkers of inflammation and lung recovery in extracorporeal membrane oxygenation patients with persistent pulmonary hypertension of the newborn: a feasibility study

<https://pubmed.ncbi.nlm.nih.gov/31725531/>

Relevance of microvascular flow assessments in critically ill neonates and children: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/31834246>

New England Journal of Medicine

A strategy for improving U.S. health care delivery — conducting more randomized, controlled trials

<https://www.ncbi.nlm.nih.gov/pubmed/32294343>

Evidence from pragmatic trials during routine care — slouching toward a learning health system

<https://www.ncbi.nlm.nih.gov/pubmed/32294344>

Covid-19 cases: an uncomplicated delivery in a patient with covid-19 in the united states

<https://www.nejm.org/doi/pdf/10.1056/nejmc2007605>

Lancet

No relevant content

JAMA

No relevant content

BMJ

No relevant content

Pediatric Infectious Disease Journal

Reduced antibiotic exposure by serial physical examinations in term neonates at risk of early-onset sepsis

<https://www.ncbi.nlm.nih.gov/pubmed/32301920>

Systemic infection caused by malassezia pachydermatis in infants: case series and review of the literature

<https://www.ncbi.nlm.nih.gov/pubmed/32118859>

Microarray analysis of group b streptococci causing invasive neonatal early- and late-onset infection

<https://www.ncbi.nlm.nih.gov/pubmed/32091495>

Maternal HIV infection alters antimicrobial immunity in exposed and uninfected infants

<https://www.ncbi.nlm.nih.gov/pubmed/32301922>

Early-onset neonatal sepsis in a premature infant (PDF)

https://pdfs.journals.lww.com/pidj/2020/05000/early_onset_neonatal_sepsis_in_a_premature_infant.24.pdf

Pediatric Cardiology

No new content

Pediatric Neurology

Seizures and outcome one year after neonatal and childhood cerebral sinovenous thrombosis

<https://www.ncbi.nlm.nih.gov/pubmed/31882182>

Outcome trajectories after primary perinatal hemorrhagic stroke

<https://www.ncbi.nlm.nih.gov/pubmed/31952959>

A rare presentation of congenital TORCH infection

[https://www.pedneur.com/article/S0887-8994\(19\)30956-7/fulltext](https://www.pedneur.com/article/S0887-8994(19)30956-7/fulltext)

Obstetrics and Gynecology

Cost effectiveness of latest recommendations for group b streptococci screening in the united states

<https://www.ncbi.nlm.nih.gov/pubmed/32168204>

Regional and racial–ethnic differences in perinatal interventions among periviable births

<https://www.ncbi.nlm.nih.gov/pubmed/32168210>

Adverse infant and maternal outcomes among low-risk term pregnancies stratified by race and ethnicity

<https://www.ncbi.nlm.nih.gov/pubmed/32168221>

Antenatal diagnosis of marginal and velamentous placental cord insertion and pregnancy outcomes

<https://www.ncbi.nlm.nih.gov/pubmed/32168213>

Delivery at 39 weeks of gestation: the time has come

<https://www.ncbi.nlm.nih.gov/pubmed/32168223>

Committee opinion no. 797: prevention of group b streptococcal early-onset disease in newborns: correction (PDF)

https://pdfs.journals.lww.com/greenjournal/2020/04000/committee_opinion_no_797_prevention_of_group_b.48.pdf

American Journal of Obstetrics & Gynecology

Effect of delayed interval delivery of remaining fetus(es) in multiple pregnancies on survival: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/31394069>

BASIC SCIENCE SELECTIONS

Nanoparticle delivery of proangiogenic transcription factors into the neonatal circulation inhibits alveolar simplification caused by hyperoxia

Bolte C, Ustiyani V, Ren X, et al. Am J Respir Crit Care Med.

<https://www.ncbi.nlm.nih.gov/pubmed/32240596>

Failure to down-regulate miR-154 expression in early postnatal mouse lung epithelium suppresses alveologenesis, with changes in TGF-beta signaling similar to those induced by exposure to hyperoxia
Chao CM, Carraro G, Rako ZA, et al. Cells.

<https://www.ncbi.nlm.nih.gov/pubmed/32252341>

Fat and protein variability in donor human milk and associations with milk banking processes

Friend LL & Perrin MT. Breastfeed Med.

<https://www.ncbi.nlm.nih.gov/pubmed/32311292>

Chronic intra-uterine Ureaplasma Parvum infection induces injury of the enteric nervous system in ovine fetuses

Heymans C, de Lange IH, Hütten MC, et al. Front Immunol.

<https://www.ncbi.nlm.nih.gov/pubmed/32256485>

On-the-fly rapid immunoassay for neonatal sepsis diagnosis: C-reactive protein accurate determination using magnetic graphene-based micromotors

Molinero-Fernández Á, Arruza L, López MÁ, et al. Biosens Bioelectron.

<https://www.ncbi.nlm.nih.gov/pubmed/32275206>

Autophagy inducer activates Nrf2-ARE pathway to attenuate aberrant alveolarization in neonatal rats with bronchopulmonary dysplasia

Zhao X, Shi Y, Zhang D, et al. Life Sci.

<https://www.ncbi.nlm.nih.gov/pubmed/32298739>

Ex vivo MRI analytical methods and brain pathology in preterm lambs treated with postnatal dexamethasone

Yates NJ, Feindel KW, Mehnert A, et al. Brain Sci.
<https://www.ncbi.nlm.nih.gov/pubmed/32260193>

Detection of microbial cell-free DNA in maternal and umbilical cord plasma in patients with chorioamnionitis using next generation sequencing

Witt RG, Blair L, Frascoli M, et al. PLoS One.
<https://www.ncbi.nlm.nih.gov/pubmed/32294121>

Inhibition of retinal neovascularization by a PEDF-derived nonapeptide in newborn mice subjected to oxygen-induced ischemic retinopathy

Sheibani N, Zaitoun IS, Wang S, et al. Exp Eye Res.
<https://www.ncbi.nlm.nih.gov/pubmed/32272114>

ADDITIONAL JOURNAL SELECTIONS

Human milk-derived fortifiers compared with bovine milk-derived fortifiers in preterm infants: a systematic review and meta-analysis

Ananthan A, Balasubramanian H, Rao S, et al. Adv Nutr.
<https://www.ncbi.nlm.nih.gov/pubmed/32277813>

Growth, body composition, and neurodevelopmental outcomes at 2 years among preterm infants fed an exclusive human milk diet in the neonatal intensive care unit: a pilot study

Bergner EM, Shypailo R, Visuthranukul C, et al. Breastfeed Med.
<https://www.ncbi.nlm.nih.gov/pubmed/32298596>

Can ultrasound measures of muscle and adipose tissue thickness predict body composition of premature infants in the neonatal intensive care unit?

Nagel E, Hickey M, Teigen L, et al. JPEN J Parenter Enteral Nutr.
<https://www.ncbi.nlm.nih.gov/pubmed/32255211>

Application of neurally adjusted ventilatory assist in premature neonates less than 1,500 grams with established or evolving bronchopulmonary dysplasia

Rong X, Liang F, Li YJ, et al. Front Pediatr.
<https://www.ncbi.nlm.nih.gov/pubmed/32266188>

Respiratory severity score with regard to birthweight during the early days of life for predicting pulmonary hypertension in preterm infants

Seo YM, Yum SK & Sung IK. J Trop Pediatr.
<https://www.ncbi.nlm.nih.gov/pubmed/32240314>

Role of Fibronectin-1 polymorphism genes with the pathogenesis of intraventricular hemorrhage in preterm infants

Szpecht D, Al-Saad SR, Karbowski LM, et al. Childs Nerv Syst.
<https://www.ncbi.nlm.nih.gov/pubmed/32285152>