

Publications Working Group

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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – December 2021

[Renal tissue oxygenation after caffeine administration in preterm neonates](#)

Matthew W Harer, Amy C Rothwell, Luke J Richard, et al. *Pediatr Res*.

This study describes the effect of caffeine on preterm (<32wk) neonatal renal regional saturation of oxygen (RrSO₂) using near-infrared spectroscopy (NIRS) sensors. Baseline RrSO₂ values 20 min prior to caffeine administration were compared to RrSO₂ at 0.5, 1, 2, 3, 4, 6, and 12 h after maintenance caffeine administration. Analysis of combined doses (n=31 infants with 156 caffeine doses) showed no significant changes in RrSO₂. Subgroup analysis showed that neonates with baseline RrSO₂ 20-29.9% had significant increases from 1 to 12 h (range of increase 5.9-13.9%), and those with baseline 30-39.9% had significant increases at 1 h (8.06%, p < 0.05). The study concluded that caffeine dosing increased RrSO₂ in neonates with low RrSO₂ in the first week, with implications for a renal-protective role.

[Association between term equivalent brain magnetic resonance imaging and 2-year outcomes in extremely preterm infants: a report from the preterm erythropoietin neuroprotection trial cohort](#)

Dennis E Mayock, Semsu Gogcu, Mihai Puia-Dumitrescu, et al. *J Pediatr*.

This report from the preterm erythropoietin neuroprotection trial (PENUT) cohort compared brain MRI findings at term equivalent between erythropoietin (Epo) and placebo groups (GA 24 0/7-27 6/7weeks). Brain MRI scans showed normal, mild, moderate, or severe abnormality in 27%, 60%, 10%, and 2% respectively, without significant difference between the groups (Epo & Placebo; n=110 each). Increased global brain abnormality and white matter injury scores at term equivalent on brain MRI were associated with reductions in cognitive, motor, and language abilities at 2 years of corrected age (Bayley III). The authors conclude that evidence of brain injury on MRI correlated with adverse neurodevelopmental outcomes at 2 years. Early Epo treatment had no effect on the MRI brain injury scores compared to placebo group.

[Editorial: causal inference from observational data: it is complicated](#)

Ilya Shpitser, Sapna R Kudchadkar, James Fackler, et al. *Pediatr Crit Care Med*.

This editorial addresses the growing trend of lay-press reporting a causal relationship from associations identified in “big data” studies. The authors comment on the illustrative case of mechanical ventilation exposure among 1,351 Texas children over 13 years who were propensity matched to 6,755 non-ventilated children. There was an association between mechanical ventilation and both mental disorders and the use of psychotropic medications. They describe the pitfalls that come with assigning a causal relationship from observed associations. These type of data have confounding selection effects, measurement errors, and missing data. Additionally the population is affected by systematic censoring

after hospital discharge which means the characteristics of the population change over time. The authors conclude by presenting causal diagrams illustrating the complexity of using complex longitudinal data to infer causal relationships.

[Long-term respiratory and developmental outcomes in children with bronchopulmonary dysplasia and history of tracheostomy](#)

Chandler A Annesi, Jonathan C Levin, Jonathan S Litt, et al. *J Perinatol*.

This single-institution retrospective case-control study compared 49 children with severe bronchopulmonary dysplasia who received a tracheostomy to 280 children with severe bronchopulmonary dysplasia who did not receive a tracheostomy. Infants who received tracheostomy were more likely to be Black, have pulmonary hypotension, have subglottic stenosis, have lower maximal FEV1%, and have extrathoracic obstruction. In addition, infants who received a tracheostomy had greater cognitive and motor delays <24 month, and greater cognitive delays >24 months.

[Differential placental CpG methylation is associated with chronic lung disease of prematurity](#)

Wesley M Jackson, Hudson P Santos Jr, Hadley J Hartwell, et al. *Pediatr Res*.

To discern if epigenetic variation in placenta DNA methylation is associated with differential risk of chronic lung disease (CLD), the investigators analyzed epigenome-wide data from a multi-center cohort of infants born <28 weeks. They found that CLD was associated with differential methylation at 49 CpG sites representing genes involved in fetal lung development and that the differences were sex-dependent.

[The effect of daily probiotics on the incidence and severity of necrotizing enterocolitis in infants with very low birth weight](#)

Jessica Que, Rhonda Van Oerle, Susan Albersheim, et al. *Can J Surg*.

The authors chose to evaluate the effect of routine probiotics on the incidence and severity of necrotizing enterocolitis (NEC) in VLBW infants. They found that exposure to probiotics did not alter the incidence of Bell's stage 2/3 NEC, LOS, or mortality, but diminished the incidence of infections. They conclude that the routine use of probiotics results in fewer overall infections, but not the development of severe NEC.

[A standardized definition of placental infection by SARS-CoV-2, a consensus statement from the National Institutes of Health/Eunice Kennedy Shriver National Institute of Child Health and Human Development SARS-CoV-2 Placental Infection Workshop](#)

Drucilla J Roberts, Andrea G Edlow, Roberto J Romero, et al. *Am J Obstet Gynecol*.

Pregnant individuals infected with SARS-CoV-2 have higher rates of ICU admission, oxygen requirement, need for mechanical ventilation and death when compared to nonpregnant individuals. A lot of these findings can be attributed to placental infection. This group attempted to standardize the definition of placental infection using techniques to allow virus detection and localization in the placental tissue such as, in situ hybridization with antisense probe (detects replication) or a sense probe (detects viral messenger RNA) or immunohistochemistry to detect viral nucleocapsid or spike proteins. If the abovementioned methods are not possible, reverse transcription polymerase chain reaction detection or quantification of viral RNA in placental homogenates, or electron microscopy are alternative approaches.

[Single-examination risk prediction of severe retinopathy of prematurity](#)

Aaron S Coyner, Jimmy S Chen, Praveer Singh, et al. *Pediatrics*.

Using a risk model that combined artificial intelligence with clinical demographics in infants undergoing routine ROP screening examinations from 8 North American study centers, a single examination identified all infants who developed ROP requiring treatment, on average > 1 month before diagnosis with moderate to high specificity.

[Mortality and major neonatal morbidity in preterm infants with serious congenital heart disease](#)

Martina A Steurer, Rebecca J Baer, Christina D Chambers, et al. *J Pediatr*.

Mortality in preterm neonates with serious CHD decreased over the last decade, whereas major neonatal morbidities increased. Preterm infants with a gestational age of 28-32 weeks have the highest mortality or morbidity compared with their peers without CHD. These results support the need for specialized and focused medical neonatal care in preterm neonates with serious CHD.

[Necrotizing enterocolitis in children with congenital heart disease: a literature review](#)

Sean T Kelleher, Colin J McMahon and Adam James. *Pediatr Cardiol*.

This review acts to consolidate existing knowledge on the topic of NEC in children with congenital heart disease, in terms of disease incidence, pathophysiology, risk factors, outcomes and the complex relationship between NEC and enteral feeds. Potential preventative strategies, novel biomarkers for NEC in this population, and the role of the intestinal microbiome are all explored.

OTHER NOTEWORTHY PUBLICATIONS - December, 2020

COVID – 19

Outbreak of SARS-COV-2 in a children's nursery in the United Kingdom (PDF)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8575081/pdf/inf-40-e455.pdf>

The effect of COVID-19 infection during pregnancy; evaluating neonatal outcomes and the impact of the B.1.1.7. Variant (PDF)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8575080/pdf/inf-40-e475.pdf>

Perinatal COVID-19 (PDF)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8575090/pdf/inf-40-e504.pdf>

Association of the Delta (B.1.617.2) variant of severe acute respiratory syndrome Coronavirus 2 (SARS-COV-2) with pregnancy outcomes

<https://www.ncbi.nlm.nih.gov/pubmed/34592748>

Maternal and perinatal outcomes associated with the severe acute respiratory syndrome Coronavirus 2 (SARS-COV-2) Delta (B.1.617.2) variant

<https://www.ncbi.nlm.nih.gov/pubmed/34592747>

Administration of the Coronavirus disease 2019 (COVID-19) vaccine to hospitalized postpartum patients

<https://www.ncbi.nlm.nih.gov/pubmed/34794155>

Monoclonal antibodies Casirivimab and Imdevimab in pregnancy for Coronavirus disease 2019 (COVID-19)

<https://www.ncbi.nlm.nih.gov/pubmed/34583385>

Covid-19: Vaccine uptake during pregnancy has increased but deprived areas lag behind, data show (PDF)

<https://www.bmj.com/content/375/bmj.n2932.full.pdf>

Covid-19 and pregnancy: vaccine hesitancy and how to overcome it (PDF)

<https://www.bmj.com/content/375/bmj.n2862.full.pdf>

Infant delivery and maternal stress during the COVID-19 pandemic: a comparison of the well-baby versus neonatal intensive care environments

<https://pubmed.ncbi.nlm.nih.gov/33986472>

Titers of SARS CoV-2 antibodies in cord blood of neonates whose mothers contracted SARS CoV-2 (COVID-19) during pregnancy and in those whose mothers were vaccinated with mRNA to SARS CoV-2 during pregnancy

<https://pubmed.ncbi.nlm.nih.gov/34564695>

Perinatal transmission and outcome of neonates born to SARS-CoV-2-positive mothers: the experience of 2 highly endemic Italian regions

<https://pubmed.ncbi.nlm.nih.gov/34628414>

A standardized definition of placental infection by SARS-CoV-2, a consensus statement from the National Institutes of Health/Eunice Kennedy Shriver National Institute of Child Health and Human Development SARS-CoV-2 Placental Infection Workshop (PDF)

[https://www.ajog.org/article/S0002-9378\(21\)00832-2/pdf](https://www.ajog.org/article/S0002-9378(21)00832-2/pdf)

Changes in pediatric faculty burnout during the COVID-19 pandemic

<https://pubmed.ncbi.nlm.nih.gov/34808669/>

Spontaneous massive pneumomediastinum in a previously well infant with COVID-19

<https://pubmed.ncbi.nlm.nih.gov/34851418/>

Pediatrics

Rotavirus Vaccine Safety and Effectiveness in Infants With High-Risk Medical Conditions.

<https://pubmed.ncbi.nlm.nih.gov/34814164/>

Antibiotic use in term and near-term newborns

<https://pubmed.ncbi.nlm.nih.gov/34814187/>

Outcomes of cystic fibrosis screening—positive infants with inconclusive diagnosis at school age

<https://pubmed.ncbi.nlm.nih.gov/34814176/>

Single-examination risk prediction of severe retinopathy of prematurity

<https://pubmed.ncbi.nlm.nih.gov/34814160/>

Gestational age and neonatal electrocardiograms

<https://pubmed.ncbi.nlm.nih.gov/34814190/>

Maximizing benefits and minimizing harms: diagnostic uncertainty arising from newborn screening

<https://pubmed.ncbi.nlm.nih.gov/34814191/>

Commentary: predicting severity by artificial intelligence: pragmatic versus knowledge-based approach

<https://pubmed.ncbi.nlm.nih.gov/34814182/>

Care of congenital melanocytic nevi in newborns and infants: review and management recommendations

<https://pubmed.ncbi.nlm.nih.gov/34845496/>

Improving hospital infant safe sleep compliance by using safety prevention bundle methodology

<https://pubmed.ncbi.nlm.nih.gov/34851414/>

Reticular dysgenesis: a rare immunodeficiency in a neonate with cytopenias and bacterial sepsis

<https://pubmed.ncbi.nlm.nih.gov/34814161/>

Journal of Pediatrics

Newborn screening should be considered in immigrant populations (PDF)

[https://www.jpeds.com/article/S0022-3476\(21\)00968-9/pdf](https://www.jpeds.com/article/S0022-3476(21)00968-9/pdf)

Is the care of children with trisomy 18 changing? (PDF)

[https://www.jpeds.com/article/S0022-3476\(21\)00972-0/pdf](https://www.jpeds.com/article/S0022-3476(21)00972-0/pdf)

Magnetic resonance imaging assessment of pulmonary vascularity in infants with congenital diaphragmatic hernia: a novel tool for direct assessment of severity of pulmonary hypertension and hypoplasia

<https://pubmed.ncbi.nlm.nih.gov/34339729/>

Neonatal reference intervals for the complete blood count parameters MicroR and Hypo-He: sensitivity beyond the red cell indices for identifying microcytic and hypochromic disorders

<https://pubmed.ncbi.nlm.nih.gov/34389321/>

Comparison of predictive values of magnetic resonance biomarkers based on scan timing in neonatal encephalopathy following therapeutic hypothermia

<https://pubmed.ncbi.nlm.nih.gov/34391766/>

Mortality and major neonatal morbidity in preterm infants with serious congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/34454949/>

Association between term equivalent brain magnetic resonance imaging and 2-year outcomes in extremely preterm infants: a report from the preterm erythropoietin neuroprotection trial cohort

<https://pubmed.ncbi.nlm.nih.gov/34454953/>

Neurodevelopmental outcome of children with congenital heart disease: a cohort study from infancy to preschool age

<https://pubmed.ncbi.nlm.nih.gov/34454950/>

Antibiotic use in neonatal intensive care units in China: a multicenter cohort study

<https://pubmed.ncbi.nlm.nih.gov/34461063/>

Parental enrollment decision-making for a neonatal clinical trial

<https://pubmed.ncbi.nlm.nih.gov/34400207/>

Sustained inflation versus intermittent positive pressure ventilation for preterm infants at birth: respiratory function and vital sign measurements

<https://pubmed.ncbi.nlm.nih.gov/34453917/>

Timing of intraventricular hemorrhage in preterm neonates (PDF)

[https://www.jpeds.com/article/S0022-3476\(21\)00762-9/pdf](https://www.jpeds.com/article/S0022-3476(21)00762-9/pdf)

Pediatric Research

Review: Established severe BPD: is there a way out? Change of ventilatory paradigms

<https://pubmed.ncbi.nlm.nih.gov/34012026/>

Increased mitochondrial oxygen consumption in adult survivors of preterm birth

<https://pubmed.ncbi.nlm.nih.gov/33619358/>

Neuroprotective effects of Sonic hedgehog agonist SAG in a rat model of neonatal stroke

<https://pubmed.ncbi.nlm.nih.gov/33654279/>

Renal tissue oxygenation after caffeine administration in preterm neonates

<https://pubmed.ncbi.nlm.nih.gov/34006983/>

Serum docosahexaenoic acid levels are associated with brain volumes in extremely preterm born infants

<https://pubmed.ncbi.nlm.nih.gov/34392310/>

Autism risk in neonatal intensive care unit patients associated with novel heart rate patterns

<https://pubmed.ncbi.nlm.nih.gov/33603208/>

Persistent microbial contamination of incubators despite disinfection

<https://pubmed.ncbi.nlm.nih.gov/33627818/>

Serial plasma biomarkers of brain injury in infants with neonatal encephalopathy treated with therapeutic hypothermia

<https://pubmed.ncbi.nlm.nih.gov/33654280/>

Early clinical and MRI biomarkers of cognitive and motor outcomes in very preterm born infants

<https://pubmed.ncbi.nlm.nih.gov/33627820/>

Delivery mode and altered infant growth at 1 year of life in India

<https://pubmed.ncbi.nlm.nih.gov/33654288/>

Archives of Disease in Childhood - Fetal & Neonatal Edition

No new content

Journal of Perinatology

Non-invasive carbon dioxide monitoring in neonates: methods, benefits, and pitfalls

<https://pubmed.ncbi.nlm.nih.gov/34148068/>

Derivation and external validation of risk stratification models for severe maternal morbidity using prenatal encounter diagnosis codes

<https://pubmed.ncbi.nlm.nih.gov/34012053>

Association of timing of birth with mortality among preterm infants born in Canada

<https://pubmed.ncbi.nlm.nih.gov/34050244>

Respiratory and glycemic control outcomes of late preterm infants after antenatal corticosteroid exposure

<https://pubmed.ncbi.nlm.nih.gov/34290375>

Follow-through care for high-risk infants during the COVID-19 pandemic: lessons learned from the Vermont Oxford Network

<https://pubmed.ncbi.nlm.nih.gov/34315972>

Oxygen management among infants in neonatal units in sub-Saharan Africa: a cross-sectional survey

<https://pubmed.ncbi.nlm.nih.gov/33772113>

Comparative efficacy and safety of late surfactant preparations: a retrospective study

<https://pubmed.ncbi.nlm.nih.gov/34285358>

Long-term respiratory and developmental outcomes in children with bronchopulmonary dysplasia and history of tracheostomy

<https://pubmed.ncbi.nlm.nih.gov/34290373>

Qualitative indications for tracheostomy and chronic mechanical ventilation in patients with severe bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/34349231>

A comparison of methods of discontinuing nasal CPAP in premature infants <30 weeks gestation: a feasibility study

<https://pubmed.ncbi.nlm.nih.gov/34511596>

Thyroid-stimulating hormone reference ranges for moderate-to-late preterm infants

<https://pubmed.ncbi.nlm.nih.gov/33279944>

Evaluation of radiologic evidence of metabolic bone disease in very low birth weight infants at fourth week of life

<https://pubmed.ncbi.nlm.nih.gov/33986471>

Leveraging the Massachusetts perinatal quality collaborative to address the COVID-19 pandemic among diverse populations

<https://pubmed.ncbi.nlm.nih.gov/34226648>

Increasing usage of mother's own milk in neonates at risk of neonatal abstinence syndrome: MOM-NAS quality improvement initiative

<https://pubmed.ncbi.nlm.nih.gov/34531531>

Neonatology

Normal values for cerebrospinal fluid in neonates: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/34818234>

To sedate or not to sedate for less invasive surfactant administration: an ethical approach

<https://pubmed.ncbi.nlm.nih.gov/34628413>

Ignored papers, invented quotations: a history of fetal alcohol syndrome

<https://pubmed.ncbi.nlm.nih.gov/34535605>

The association between serum bilirubin and kernicterus spectrum disorder: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/34731859>

Signal quality of electrical cardiometry and perfusion index in very preterm infants

<https://pubmed.ncbi.nlm.nih.gov/34569547>

Diagnostic properties of a portable point-of-care method to measure bilirubin and a transcutaneous bilirubinometer

<https://pubmed.ncbi.nlm.nih.gov/34818231>

Temporal trends in the severity and mortality of neonatal hypoxic-ischemic encephalopathy in the era of hypothermia

<https://pubmed.ncbi.nlm.nih.gov/34535601>

MR spectroscopy shows long propylene glycol half-life in neonatal brain

<https://pubmed.ncbi.nlm.nih.gov/34670216>

Mother's bed incline and desaturation episodes in healthy term newborns during early skin-to-skin contact: a multicenter randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/34695832>

Hour-specific total serum bilirubin percentiles for Infants born at 29–35 weeks' gestation

<https://pubmed.ncbi.nlm.nih.gov/34710869>

Effect of enteral vitamin A on fecal calprotectin in extremely preterm infants: a nested prospective observational study

<https://pubmed.ncbi.nlm.nih.gov/34518481>

Incidence estimates of perinatal arterial ischemic stroke in preterm- and term-born infants: a national capture-recapture calculation corrected surveillance study

<https://pubmed.ncbi.nlm.nih.gov/33794541>

American Journal of Perinatology

Risk of cesarean delivery for women with obesity using a standardized labor induction protocol

<https://pubmed.ncbi.nlm.nih.gov/34282575/>

Head circumference within the normal range and neurodevelopmental outcomes in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/34327687/>

Intrapartum fetal electrocardiogram in small- and large-for-gestational age fetuses

<https://pubmed.ncbi.nlm.nih.gov/34464982/>

Evaluating the effect of pravastatin in early-onset fetal growth restriction: a nonrandomized and historically controlled pilot study

<https://pubmed.ncbi.nlm.nih.gov/32615618/>

Comparison of left ventricular outflow tract diameter measurements using echocardiography in newborn infants

<https://pubmed.ncbi.nlm.nih.gov/32604447/>

Comparison of Nasal CPAP versus Bi-level CPAP in transient tachypnea of the newborn: a randomized trial

<https://pubmed.ncbi.nlm.nih.gov/32594511/>

Breastfeeding and formula selection in neonatal abstinence syndrome

<https://pubmed.ncbi.nlm.nih.gov/32604445/>

Cost-utility of sildenafil for persistent pulmonary hypertension of the newborn

<https://pubmed.ncbi.nlm.nih.gov/32615617/>

Exposure to meconium-stained amniotic fluid and long-term neurological-related hospitalizations throughout childhood

<https://pubmed.ncbi.nlm.nih.gov/32620023/>

Nasogastric versus orogastric bolus tube feeding in preterm infants: pilot randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/32620020/>

Risk factors for respiratory syncytial virus infections in moderate/late premature infants in Turkey: a prospective multicenter epidemiological study

<https://pubmed.ncbi.nlm.nih.gov/32659789/>

The role of lung ultrasound as an early diagnostic tool for need of surfactant therapy in preterm infants with respiratory distress syndrome

<https://pubmed.ncbi.nlm.nih.gov/32674204/>

Risk factors for brain injury in newborns treated with extracorporeal membrane oxygenation

<https://pubmed.ncbi.nlm.nih.gov/32674203/>

Journal of Neonatal-Perinatal Medicine

Commentary: Cerebellar underdevelopment in the very preterm infant: Important and underestimated source of cognitive deficits.

<https://pubmed.ncbi.nlm.nih.gov/33967062/>

The use of high dose octreotide in management of neonatal chylothorax: Review

<https://pubmed.ncbi.nlm.nih.gov/33843702/>

Impact of maternal medication for opioid use disorder on neurodevelopmental outcomes of infants treated for neonatal opioid withdrawal syndrome

<https://pubmed.ncbi.nlm.nih.gov/33843701/>

Impact of opioid maintenance treatment during pregnancy on neonatal birth weight and head circumference

<https://pubmed.ncbi.nlm.nih.gov/33843703/>

Myocardial performance index in term appropriate and small for gestational age neonates - a cross sectional study

<https://pubmed.ncbi.nlm.nih.gov/33523027/>

Association of hemoglobin and spontaneous closure of the ductus arteriosus during the transitional period in very low birth weight infants

<https://pubmed.ncbi.nlm.nih.gov/33523022/>

A comparison of LISA versus InSurE: A single center experience

<https://pubmed.ncbi.nlm.nih.gov/33646183/>

Relation of asymmetric dimethylarginine with pulmonary morbidities in neonatal respiratory distress syndrome

<https://pubmed.ncbi.nlm.nih.gov/33646184/>

Lower oxygen saturation targets in preterm infants are not associated with increased rates of pulmonary hypertension

<https://pubmed.ncbi.nlm.nih.gov/33720854/>

Impact of early postnatal exposure of red blood cell transfusions on the severity of retinopathy of prematurity

<https://pubmed.ncbi.nlm.nih.gov/34120920/>

Evaluating the impact of CPAP weaning procedures on total days on nasal CPAP: A retrospective chart review

<https://pubmed.ncbi.nlm.nih.gov/33523028/>

Predictors of mortality in premature babies with respiratory distress syndrome treated by early rescue surfactant therapy

<https://pubmed.ncbi.nlm.nih.gov/34120918/>

Clinical and vital sign changes associated with late-onset sepsis in very low birth weight infants at 3 NICUs

<https://pubmed.ncbi.nlm.nih.gov/33523025/>

Assessment of pentraxin 3 in a systemic inflammatory response occurring with neonatal bacterial infection

<https://pubmed.ncbi.nlm.nih.gov/33523023/>

Prolonged empiric antibiotics and time to full enteral feed in preterm infants less than 29 weeks of gestational age

<https://pubmed.ncbi.nlm.nih.gov/33523024/>

Care practices and outcomes of extremely preterm neonates born at 22–24 weeks – A single centre experience

<https://pubmed.ncbi.nlm.nih.gov/34120919/>

Micro-premature infants in New Jersey show improved mortality and morbidity from 2000–2018

<https://pubmed.ncbi.nlm.nih.gov/33843700/>

Sentinel bowel loop as a marker for primary segmental intestinal volvulus in extreme low birth weight neonates

<https://pubmed.ncbi.nlm.nih.gov/33749622/>

A case of neonatal diabetes insipidus following dexamethasone for bronchopulmonary dysplasia

<https://pubmed.ncbi.nlm.nih.gov/33337391/>

Subdural extravasation of crystalloids and blood products through a scalp peripheral intravenous catheter into the subdural space of a neonate on veno-arterial extracorporeal membrane oxygenation

<https://pubmed.ncbi.nlm.nih.gov/33523026/>

Maternal Health, Neonatology and Perinatology

No new content

Neoreviews

Global health education and best practices for neonatal-perinatal medicine trainees

<https://pubmed.ncbi.nlm.nih.gov/34850151/>

Fetal screening for chromosomal abnormalities

<https://pubmed.ncbi.nlm.nih.gov/34850145/>

Neonatal cholestasis: updates on diagnostics, therapeutics, and prevention

<https://pubmed.ncbi.nlm.nih.gov/34850148/>

Absent red reflexes and cloudy corneas

<https://pubmed.ncbi.nlm.nih.gov/34850150/>

A failed CCHD screen

<https://pubmed.ncbi.nlm.nih.gov/34850147/>

A late-preterm infant with ichthyosis, pancytopenia, and recurrent sepsis

<https://pubmed.ncbi.nlm.nih.gov/34850146/>

Fever after preterm prelabor rupture of membranes

<https://pubmed.ncbi.nlm.nih.gov/34850152/>

A newborn with congenital stridor

<https://pubmed.ncbi.nlm.nih.gov/34850153/>

Prenatal diagnosis of a lethal skeletal dysplasia

<https://pubmed.ncbi.nlm.nih.gov/34850149/>

JAMA Pediatrics

No relevant articles

BMC Pediatrics

Intussusception in preterm neonates: A systematic review of a rare condition (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03065-5.pdf>

The effect of acetate Ringer's solution versus lactate Ringer's solution on acid base physiology in infants with biliary atresia (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03074-4.pdf>

Fatal accidental lipid overdose with intravenous composite lipid emulsion in a premature newborn: a case report (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03064-6.pdf>

Early aEEG can predict neurodevelopmental outcomes at 12 to 18 month of age in VLBWI with necrotizing enterocolitis: a cohort study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03056-6.pdf>

When first line treatment of neonatal infection is not enough: blood culture and resistance patterns in neonates requiring second line antibiotic therapy in Bangui, Central African Republic (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02911-w.pdf>

An outbreak of RSV infections in a neonatology clinic during the RSV-season (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03053-9.pdf>

Co-inheritance of G6PD deficiency and 211 G to a variation of UGT1A1 in neonates with hyperbilirubinemia in eastern Guangdong (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03010-6.pdf>

The clinical effects of high-frequency oscillatory ventilation in the treatment of neonatal severe meconium aspiration syndrome complicated with severe acute respiratory distress syndrome (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03042-y.pdf>

Brain and renal oxygenation measured by NIRS related to patent ductus arteriosus in preterm infants: a prospective observational study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03036-w.pdf>

Parents' pandemic NICU experience in the United States: a qualitative study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03028-w.pdf>

Helping babies breathe: assessing the effectiveness of simulation-based high-frequency recurring training in a community-based setting of Pakistan (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03014-2.pdf>

Retrospective analysis of pneumothorax after repair of esophageal atresia/tracheoesophageal fistula (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02948-x.pdf>

Fluid handling and blood flow patterns in neonatal respiratory distress syndrome versus transient tachypnea: a pilot study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03025-z.pdf>

Time to regain birth weight - a marker to predict the severity of retinopathy of prematurity? (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03027-x.pdf>

Pediatric Critical Care Medicine

Outcomes of catheter-related arterial and venous thrombosis after enoxaparin therapy in neonates and infants with congenital heart disease

<https://pubmed.ncbi.nlm.nih.gov/34554133/>

Editorial: causal inference from observational data: it is complicated

<https://pubmed.ncbi.nlm.nih.gov/34854846/>

New England Journal of Medicine

Live birth with or without preimplantation genetic testing for aneuploidy

<https://www.ncbi.nlm.nih.gov/pubmed/34818479>

Lancet

No relevant content

JAMA

Effects of Mediterranean diet or mindfulness-based stress reduction on prevention of small-for-gestational age birth weights in newborns born to at-risk pregnant individuals

<https://www.ncbi.nlm.nih.gov/pubmed/34874420>

Editorial: mindfulness-based stress reduction, Mediterranean diet, and fetal growth

<https://www.ncbi.nlm.nih.gov/pubmed/34874440>

Preterm delivery is a long-term hypertension risk factor

<https://www.ncbi.nlm.nih.gov/pubmed/34874433>

BMJ

See COVID section

Pediatric Infectious Disease Journal

Accuracy of clinical and cerebrospinal fluid indicators in the diagnosis of bacterial meningitis in infants <90 days of age in Luanda, Angola

<https://www.ncbi.nlm.nih.gov/pubmed/34561386>

Safety and experience with combined antiretroviral prophylaxis in newborn at high-risk of perinatal HIV infection, in a cohort of mother living with HIV-infant pairs

<https://www.ncbi.nlm.nih.gov/pubmed/34870390>

Risk factors associated with 30-day mortality among neonates with A. Baumannii sepsis

<https://www.ncbi.nlm.nih.gov/pubmed/34260484>

Bloodstream infections at two neonatal intensive care units in Ghana: multidrug resistant Enterobacterales undermine the usefulness of standard antibiotic regimes

<https://www.ncbi.nlm.nih.gov/pubmed/34561387>

Antibiotic therapy of an infant with a Brevibacterium Casei ventriculoperitoneal shunt infection

<https://www.ncbi.nlm.nih.gov/pubmed/34292269>

Pediatric Cardiology

Necrotizing enterocolitis in children with congenital heart disease: a literature review (PDF)

<https://link.springer.com/content/pdf/10.1007/s00246-021-02691-1.pdf>

Echocardiographic parameters predictive of poor outcome in persistent pulmonary hypertension of the newborn (PPHN): preliminary results

<https://pubmed.ncbi.nlm.nih.gov/34331558/>

Pediatric Neurology

No relevant articles

Obstetrics and Gynecology

Risk of postpartum opioid use disorder or opioid overdose after prenatal opioid analgesic use (PDF)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8594525/pdf/ong-138-891.pdf>

Etiology and outcome of isolated fetal ascites: a systematic review

<https://www.ncbi.nlm.nih.gov/pubmed/34735407>

American Journal of Obstetrics & Gynecology

Prenatal alcohol consumption and placental outcomes: a systematic review and meta-analysis of clinical studies

<https://pubmed.ncbi.nlm.nih.gov/34181895/>

Maternal and fetal vascular lesions of malperfusion in the placentas associated with fetal and neonatal death: results of a prospective observational study

<https://pubmed.ncbi.nlm.nih.gov/34111407/>

Experience of 300 cases of prenatal fetoscopic open spina bifida repair: report of the International Fetoscopic Neural Tube Defect Repair Consortium

<https://pubmed.ncbi.nlm.nih.gov/34089698/>

Placental extracellular vesicles-associated microRNA-519c mediates endotoxin adaptation in pregnancy

<https://pubmed.ncbi.nlm.nih.gov/34181894/>

Society for Maternal-Fetal Medicine Special Statement: Beyond the scalpel: in utero fetal gene therapy and curative medicine

<https://pubmed.ncbi.nlm.nih.gov/34537158/>

Hospital Pediatrics

Improving compliance with revised newborn Hepatitis B vaccination policy

<https://pubmed.ncbi.nlm.nih.gov/34808667/>

BASIC SCIENCE SELECTIONS

Mesenchymal stem cell-derived extracellular vesicles suppress hyperoxia-induced transdifferentiation of rat alveolar type 2 epithelial cells

Danyang Ai, Jieru Shen, Jiali Sun, et al. *Stem Cells Dev.*

<https://www.ncbi.nlm.nih.gov/pubmed/34913742>

Circulating extracellular vesicles activate the pyroptosis pathway in the brain following ventilation-induced lung injury

Laura Chavez, Julia Meguro, Shaoyi Chen, et al. *J Neuroinflammation*.

<https://www.ncbi.nlm.nih.gov/pubmed/34965880>

Differential placental CpG methylation is associated with chronic lung disease of prematurity

Wesley M Jackson, Hudson P Santos Jr, Hadley J Hartwell, et al. *Pediatr Res*.

<https://www.ncbi.nlm.nih.gov/pubmed/34857876>

Comparison of multivariable logistic regression and machine learning models for predicting bronchopulmonary dysplasia or death in very preterm infants

Faiza Khurshid, Helen Coe, Amal Khalil, et al. *Front Pediatr*.

<https://www.ncbi.nlm.nih.gov/pubmed/34950616>

Free radicals and neonatal brain injury: from underlying pathophysiology to antioxidant treatment perspectives

Silvia Martini, Laura Castellini, Roberta Parladori, et al. *Antioxidants (Basel)*.

<https://www.ncbi.nlm.nih.gov/pubmed/34943115>

Vagal tone and proinflammatory cytokines predict feeding intolerance and necrotizing enterocolitis risk

Alissa L Meister, Fumiyuki C Gardner, Kirsteen N Browning, et al. *Adv Neonatal Care*.

<https://www.ncbi.nlm.nih.gov/pubmed/34847103>

Vascular endothelial growth factor signaling in models of oxygen-induced retinopathy: insights into mechanisms of pathology in retinopathy of prematurity

Aniket Ramshekar and M Elizabeth Hartnett. *Front Pediatr*.

<https://www.ncbi.nlm.nih.gov/pubmed/34956992>

Cardiac left ventricle mitochondrial dysfunction after neonatal exposure to hyperoxia: relevance for cardiomyopathy after preterm birth

Daniela Ravizzoni Dartora, Adrien Flahault, Carolina N R Pontes, et al. *Hypertension*.

<https://www.ncbi.nlm.nih.gov/pubmed/34961326>

Hyperoxia/hypoxia exposure primes a sustained pro-inflammatory profile of preterm infant macrophages upon LPS stimulation

Nele Twisselmann, Julia Pagel, Axel Künstner, et al. *Front Immunol*.

<https://www.ncbi.nlm.nih.gov/pubmed/34868007>

Neurocognitive sequelae of antenatal corticosteroids in a late preterm rabbit model

Johannes Van Der Merwe, Lennart Van Der Veen, Annalisa Inversetti, et al. *Am J Obstet Gynecol*.

<https://www.ncbi.nlm.nih.gov/pubmed/34875248>

Transplanted human oligodendrocyte progenitor cells restore neurobehavioral deficits in a rat model of preterm white matter injury

Xiaohua Wang, Jing Zang, Yinxian Yang, et al. *Front Neurol*.

<https://www.ncbi.nlm.nih.gov/pubmed/34858313>

Dexmedetomidine alleviates microglia-induced spinal inflammation and hyperalgesia in neonatal rats by systemic lipopolysaccharide exposure

Wen Wen, Xingrui Gong, Hoiyin Cheung, et al. *Front Cell Neurosci*.

<https://www.ncbi.nlm.nih.gov/pubmed/34955749>

ADDITIONAL JOURNAL SELECTIONS

Association between fat-free mass and brain size in extremely preterm infants

Christoph Binder, Julia Buchmayer, Alexandra Thajer, et al. *Nutrients*.

<https://www.ncbi.nlm.nih.gov/pubmed/34959757>

Inhaled corticosteroids alone and in combination with long-acting beta2 receptor agonists to treat reduced lung function in preterm-born children: a randomized clinical trial

Nia Goulden, Michael Cousins, Kylie Hart, et al. *JAMA Pediatr*.

<https://www.ncbi.nlm.nih.gov/pubmed/34902004>

Long-term effects of prematurity on resting ventilatory response to hypercapnia

Giorgio Manferdelli, Benjamin J Narang, Mathias Poussel, et al. *High Alt Med Biol*.

<https://www.ncbi.nlm.nih.gov/pubmed/34905392>

The effect of daily probiotics on the incidence and severity of necrotizing enterocolitis in infants with very low birth weight

Jessica Que, Rhonda Van Oerle, Susan Albersheim, et al. *Can J Surg*.

<https://www.ncbi.nlm.nih.gov/pubmed/34853053>

Human milk-based or bovine milk-based fortifiers differentially impact the development of the gut microbiota of preterm infants

Miriam Aguilar-Lopez, Christine Wetzel, Alissa MacDonald, et al. *Front Pediatr*.

<https://www.ncbi.nlm.nih.gov/pubmed/34917555>.