

Publications Working Group

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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – December 2020

[Simulation education for preterm infant delivery room management at community hospitals](#)

Barbato AL, Wetzel EA, Li W, et al. *Pediatrics*.

25 community hospitals in Indiana participated in simulation-based training on resuscitation and thermoregulation methods for preterm deliveries. Participants included nurses, physicians, respiratory therapists, midwives, and CNRAs in hospitals with level I or II OB services. A pretest was followed by 2 simulated resuscitations facilitated by the Indiana University Neonatal Outreach Simulation team and a posttest. The simulations were scored; follow-up education and assessment was performed 11-18 months later. There was significant knowledge improvement from the pretest to the posttest. There was also significant improvement in performance scores from the 1st to 2nd scenario for both total score and thermoregulation score. On follow-up assessment, participants retained significant improvement compared to the initial 1st scenario and showed improved performance scores after follow-up education. The authors conclude that simulation education can improve knowledge and skills in community delivery centers, and improvement is sustained over 1-1.5 years.

[Randomized controlled trial of high-flow nasal cannula in preterm infants after extubation](#)

Uchiyama A, Okazaki K, Kondo M, et al. *Pediatrics*.

In a noninferiority trial across 6 tertiary NICUs in Japan, 372 infants were randomized to post-extubation respiratory support with either HFNC 2-8 L/min or NCPAP/NIPPV with PEEP 4-5 and PIP \leq 4 cm above PEEP. HFNC was delivered via Optiflow Jr and NCPAP/NIPPV was delivered via various drivers, but the nasal interfaces were not described. The primary outcome was the receipt of rescue respiratory support within 7 days of extubation. Infants included were born <34 weeks' gestation and extubated prior to 36 weeks PMA. Median ages of extubation were 5 and 6 days. The HFNC group had higher failure rates <72 hours and <7 days after extubation. Histologic chorioamnionitis, PDA treatment, and younger PMA at extubation were associated with increased odds of HFNC failure.

[Early treatment versus expectant management of hemodynamically significant patent ductus arteriosus for preterm infants](#)

Mitra S, Scrivens A, von Kursell Am, et al. *Cochrane Database Syst Rev*.

To assess the effectiveness and safety of early versus expectant management for a hemodynamically significant (hs) -PDA in reducing mortality and morbidity in preterm infants, the authors searched clinical trial databases, conference proceedings, and the reference lists of retrieved articles for quasi- and randomized controlled trials (RCT). From the 14 RCTs analyzed in the meta-analysis, the authors found early treatment of hs-PDA probably does not reduce mortality in preterm infants (moderate-certainty evidence).

[Protective effects of resveratrol on hyperoxia-induced lung injury in neonatal rats by alleviating apoptosis and ROS production](#)

Zhu X, Lei X, Wang J, et al. *J Matern Fetal Neonatal Med*.

Given that resveratrol (RES) exerts anti-inflammatory, antioxidant, and anti-apoptosis effects, the authors exposed neonatal rats to 80% O₂ with or without RES. They found RES alleviated hyperoxia-induced alveolar simplification and apoptosis by reducing ROS production and p53 and acetyl-p53 expression and the induced SIRT1. These findings show the protective effects against hyperoxic lung injury.

[Higher or lower hemoglobin transfusion thresholds for preterm infants](#)

Kirpalani H, Bell EF, Hintz SR, et al. *N Engl J Med*.

This was an open randomized multicenter trial where infants with birth weight ≤ 1000 g and gestational age between 22 weeks and 28 6/7 weeks were randomized within 48 hours after delivery to receive red-cell (PRBC) transfusions at higher or lower hemoglobin thresholds until 36 weeks postmenstrual age or discharge, whichever occurred first. The primary outcome was a composite of death or neurodevelopmental impairment (cognitive delay, cerebral palsy, or hearing or vision loss) at 22 to 26 months corrected gestational age. 1824 infants were randomized with final outcome data available for 1692 infants (92.8%). There was a between-group difference of 1.9 g per deciliter in the pre-transfusion mean hemoglobin levels throughout the treatment period, however- there were no differences in outcomes. The authors conclude that in extremely-low-birth-weight infants, a higher hemoglobin threshold for red-cell transfusion did not improve survival without neurodevelopmental impairment at 22 to 26 months of age, corrected for prematurity.

[Perinatal maternal-fetal/neonatal transmission of COVID-19: a guide to safe maternal and neonatal care in the era of COVID-19 and physical distancing](#)

Altendahl M, Afshar Y, de St Maurice A, et al. *Neoreviews*.

The aim of this review is to summarize the clinical presentation, diagnosis, and outcomes of COVID-19 in pregnant women and neonates, who may be especially vulnerable to the effects of COVID-19, and to discuss what is known about potential maternal-fetal and maternal-neonatal transmission of SARS-CoV-2.

[Effect of fentanyl boluses on cerebral oxygenation and hemodynamics in preterm infants: a prospective observational study](#)

Mitra S, Babadagli ME, Hatfield T, et al. *Neonatology*.

This is a single center prospective observational study evaluating the effect of a fentanyl bolus (1-2 μ g/kg/dose) in preterm infants (<37wks), on the regional cerebral oxygen saturation (RcSO₂), cerebral fractional tissue oxygen extraction (cFTOE) and left ventricular output (LVO) as compared with pre-administration baseline in preterm infants. Twenty eight infants were enrolled [median GA 28 weeks (IQR 25-29 weeks), median age 4 days (IQR 3-7days)]. No significant difference was noted between baseline and post-fentanyl cerebral oxygenation, tissue oxygen extraction or cardiac output measures ($p > 0.05$). The authors conclude that fentanyl bolus for procedural pain does not significantly alter the above measures.

[Use of azithromycin for the prevention of lung injury in mechanically ventilated preterm neonates: A randomized controlled trial](#)

Nunes CR, Procianoy RS, Corso AL, et al. *Neonatology*.

This is a randomized, double-blind, placebo-controlled trial to evaluate the anti-inflammatory effect of azithromycin in preventing mechanical ventilation (MV)-induced lung injury in VLBW preterm neonates who received invasive mechanical ventilation (MV) within 72 h. Patients were randomized to receive intravenous azithromycin (10/mg/kg/day for 5 days; n=40) or placebo (0.9% saline; n=40) within 12 h of the start of MV. Serum IL-2 and IL-8 dropped significantly in the Azithromycin group five days after last dose. Death and O2 dependency at 28 days/death were significantly reduced in azithromycin group regardless of the detection of Ureaplasma in blood.

[Early use of antibiotics is associated with a lower incidence of necrotizing enterocolitis in preterm, very low birth weight infants: The NEOMUNE-NeoNutriNet cohort study](#)

Li Y, Shen RL, Ayede AI, et al. *J Pediatr*.

This multicenter trial from 13 neonatal centers evaluated 2831 VLBW (<1500g) infants included in the NEOMUNE-NeoNutriNet cohort. The incidence of NEC was 9.0% in the group of infants who did not receive early antibiotics (defined as within the first 3 postnatal days) compared with 3.9% in those who did not receive antibiotics. The incidence remained lower in the early antibiotic group after stepwise statistical adjustments for NICU (OR, 0.57; 95% CI, 0.35-0.94, P < .05) and other potential confounders (OR, 0.25; 95% CI, 0.12-0.47; P < .0001).

[Safety of sildenafil in premature infants with severe bronchopulmonary dysplasia \(SILDI-SAFE\): a multicenter, randomized, placebo-controlled, sequential dose-escalating, double-masked, safety study](#)

Schneider S, Bailey M, Spears T, et al. *BMC Pediatr*.

Pulmonary hypertension is a deadly complication of bronchopulmonary dysplasia, the most common pulmonary morbidity of prematurity. Sildenafil, a potent pulmonary vasodilator, may provide a beneficial effect on premature lungs through improved alveolarization and preserved vascular development. The investigators have designed a multicenter, randomized, placebo-controlled, sequential dose-escalating, double masked, safety trial in order to generate safety, pharmacokinetics, and preliminary effectiveness data on sildenafil in a population of premature infants with severe bronchopulmonary dysplasia at risk for pulmonary hypertension. Results from the study will be used by investigators to inform the design of a pivotal efficacy trial.

OTHER NOTEWORTHY PUBLICATIONS – November, 2020

COVID-19

Maternal, perinatal and neonatal outcomes with Covid-19: a multicenter study of 242 pregnancies and their 248 infant newborns during their first month of life

<https://pubmed.ncbi.nlm.nih.gov/32947599>

The direct and indirect impact of SARS-CoV-2 infections on neonates
a series of 26 cases in Bangladesh

<https://pubmed.ncbi.nlm.nih.gov/33031143>

Congenital SARS-CoV-2 infection in a neonate with severe acute respiratory syndrome

<https://pubmed.ncbi.nlm.nih.gov/33060519>

Newborn dried blood spots for serologic surveys of COVID-19

<https://pubmed.ncbi.nlm.nih.gov/33105339>

Is vertical transmission of SARS-CoV-2 infection possible in preterm triplet pregnancy? A case series

<https://pubmed.ncbi.nlm.nih.gov/33006879>

An uninfected preterm newborn inadvertently fed SARS-CoV-2-positive breast milk

<https://www.ncbi.nlm.nih.gov/pubmed/32843439>

A newborn with coronavirus (COVID-19) disease: A brief report

<https://www.ncbi.nlm.nih.gov/pubmed/32925114>

Perinatal maternal-fetal/neonatal transmission of COVID-19: a guide to safe maternal and neonatal care in the era of COVID-19 and physical distancing

<https://www.ncbi.nlm.nih.gov/pubmed/33262205>

Best practices for COVID-19—positive or exposed mothers—Breastfeeding and pumping milk

<https://pubmed.ncbi.nlm.nih.gov/33104195>

COVID-19 testing, personal protective equipment, and staffing strategies vary at obstetrics centers across the country

<https://pubmed.ncbi.nlm.nih.gov/32979850>

Coronavirus disease 2019 in pregnancy was associated with maternal morbidity and preterm birth

<https://pubmed.ncbi.nlm.nih.gov/32553908>

Pediatrics

Randomized controlled trial of high-flow nasal cannula in preterm infants after extubation

<https://www.ncbi.nlm.nih.gov/pubmed/33214331>

Simulation education for preterm infant delivery room management at community hospitals

<https://www.ncbi.nlm.nih.gov/pubmed/33208495>

Health of newborns and infants born to women with disabilities: the life course perspective

<https://www.ncbi.nlm.nih.gov/pubmed/33203647>

Health of newborns and infants born to women with disabilities: a meta-analysis

<https://www.ncbi.nlm.nih.gov/pubmed/33203648>

Our responsibility to follow through for NICU infants and their families

<https://www.ncbi.nlm.nih.gov/pubmed/32546582>

A quality improvement intervention to reduce postoperative opiate use in neonates

<https://www.ncbi.nlm.nih.gov/pubmed/33184168>

Journal of Pediatrics

Early antibiotic therapy and adverse outcomes in preterm infants: Time for a trial!

<https://pubmed.ncbi.nlm.nih.gov/32693104>

Cerebral oxygenation and autoregulation in preterm infants (Early NIRS Study)

<https://pubmed.ncbi.nlm.nih.gov/32818482>

Neonatal abstinence syndrome severity index predicts 18-Month neurodevelopmental outcome in neonates randomized to morphine or methadone

<https://pubmed.ncbi.nlm.nih.gov/32805259>

Prevalence and utility of low mean corpuscular volume in infants admitted to the neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/32702426>

Association between neonatal intensive care unit admission and supine sleep positioning, breastfeeding, and postnatal smoking among mothers of late preterm infants

<https://pubmed.ncbi.nlm.nih.gov/32698029>

Impact of maternal HbA1c levels $\leq 6\%$ and race in nondiabetic pregnancies on birthweight and early neonatal hypoglycemia

<https://pubmed.ncbi.nlm.nih.gov/32800816>

Early use of antibiotics is associated with a lower incidence of necrotizing enterocolitis in preterm, very low birth weight infants: The NEOMUNE-NeoNutriNet cohort study

<https://pubmed.ncbi.nlm.nih.gov/32553865>

Predicting nasal high-flow treatment success in newborn infants with respiratory distress cared for in nontertiary hospitals

<https://pubmed.ncbi.nlm.nih.gov/32679201>

Evolution of muscular oxygenation during a walking test in preterm children

<https://pubmed.ncbi.nlm.nih.gov/32750391>

Delayed vs immediate cord clamping changes oxygen saturation and heart rate patterns in the first minutes after birth

<https://pubmed.ncbi.nlm.nih.gov/32710909>

Parental depression symptoms at neonatal intensive care unit discharge and associated risk factors

<https://pubmed.ncbi.nlm.nih.gov/32681990>

Cost-effectiveness of nusinersen and universal newborn screening for spinal muscular atrophy

<https://pubmed.ncbi.nlm.nih.gov/32659229>

Optimizing oxygenation of the extremely premature infant during the first few minutes of life: Start low or high?

<https://pubmed.ncbi.nlm.nih.gov/32663594>

A midline nasal mass in a term neonate

<https://pubmed.ncbi.nlm.nih.gov/32707047>

An infant presenting with large, asymmetric tongue

<https://pubmed.ncbi.nlm.nih.gov/32777218>

Bedside airway ultrasound in the evaluation of neonatal stridor

<https://pubmed.ncbi.nlm.nih.gov/32771481>

Pediatric Research

Editorial: The Sarnat score for neonatal encephalopathy: looking back and moving forward

<https://pubmed.ncbi.nlm.nih.gov/32916680>

Comment: Translation from animal to clinical studies, choosing the optimal moment

<https://pubmed.ncbi.nlm.nih.gov/32074625>

Plasma vasopressin levels are closely associated with fetal hypotension and neuronal injury after hypoxia-ischemia in near-term fetal sheep

<https://pubmed.ncbi.nlm.nih.gov/32179873>

High concentrations of urinary ethanol metabolites in neonatal intensive care unit infants

<https://pubmed.ncbi.nlm.nih.gov/32563185>

Theophylline dosing and pharmacokinetics for renal protection in neonates with hypoxic-ischemic encephalopathy undergoing therapeutic hypothermia

<https://pubmed.ncbi.nlm.nih.gov/32919393>

Gut microbiota in neonates with congenital gastrointestinal surgical conditions: a prospective study

<https://pubmed.ncbi.nlm.nih.gov/32179871>

Hematopoietic cellular aging is not accelerated during the first 2 years of life in children born preterm

<https://pubmed.ncbi.nlm.nih.gov/32170191>

Prenatal food insecurity post Hurricane Maria is associated with decreased Veillonella in the infant gut

<https://pubmed.ncbi.nlm.nih.gov/32172280>

Noninvasive optical measurement of microvascular cerebral hemodynamics and autoregulation in the neonatal ECMO patient

<https://pubmed.ncbi.nlm.nih.gov/32172282>

The relationship between hyperbilirubinemia and the promoter region and first exon of UGT1A1 gene polymorphisms in Vietnamese newborns

<https://pubmed.ncbi.nlm.nih.gov/32126570>

Archives of Disease in Childhood - Fetal & Neonatal Edition

No relevant content

Journal of Perinatology

A global perspective on parental stress in the neonatal intensive care unit: a meta-analytic study

<https://pubmed.ncbi.nlm.nih.gov/32901116>

Neonatal Pain, Agitation, and Sedation Scale's use, reliability, and validity: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/33009491>

A survey of procedural pain assessment and non-pharmacologic analgesic interventions in neonates in Spanish public maternity units

<https://pubmed.ncbi.nlm.nih.gov/32873906>

Evaluating physiologic outcomes of music interventions in the neonatal intensive care unit: a systematic review

<https://pubmed.ncbi.nlm.nih.gov/32737404>

Music therapy and retinopathy of prematurity screening: using recorded maternal singing and heartbeat for post exam recovery

<https://pubmed.ncbi.nlm.nih.gov/32681063>

Joint periviability counseling between neonatology and obstetrics is a rare occurrence

<https://pubmed.ncbi.nlm.nih.gov/32859941>

Antenatal counseling in the gray zone of viability

<https://pubmed.ncbi.nlm.nih.gov/33024254>

Neonatal palliative care: perception differences between providers

<https://pubmed.ncbi.nlm.nih.gov/32661367>

“Quality of life”: parent and neonatologist perspectives

<https://pubmed.ncbi.nlm.nih.gov/32214216>

Branch pulmonary artery Doppler parameters predict early survival–non-survival in premature rupture of membranes

<https://pubmed.ncbi.nlm.nih.gov/32978527>

The impact of the Baby Friendly Hospital Initiative on neonatal hypoglycemia

<https://pubmed.ncbi.nlm.nih.gov/32963302>

Glucose concentrations in enterally fed preterm infants

<https://pubmed.ncbi.nlm.nih.gov/32759957>

A comparison of the glycemic effects of glucagon using two dose ranges in neonates and infants with hypoglycemia

<https://pubmed.ncbi.nlm.nih.gov/32801353>

Very low birth weight infants receive full enteral nutrition within 2 postnatal weeks

<https://pubmed.ncbi.nlm.nih.gov/32994536>

Reducing discomfort of eye drops prior to retinal examination in the neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/33060779>

Perspective: Does crossover treatment of control subjects invalidate results of randomized trials of patent ductus arteriosus treatment?

<https://pubmed.ncbi.nlm.nih.gov/33024260>

Neonatology

Predictors of outcomes in hypoxic-ischemic encephalopathy following hypothermia: a meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/32235122>

How often are patient-important outcomes represented in neonatal randomized controlled trials? An analysis of Cochrane neonatal reviews

<https://pubmed.ncbi.nlm.nih.gov/32209794>

Use of continuous physiological monitor data to evaluate doxapram therapy in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/32841955>

*Ultrasound measurements of intracranial structures in growth-restricted neonates with fetal blood flow redistribution: A pilot observational study

<https://pubmed.ncbi.nlm.nih.gov/32526754>

Indoor climate and air quality in a neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/32604089>

Prediction of neurodevelopmental impairment in congenital cytomegalovirus infection by early postnatal magnetic resonance imaging

<https://pubmed.ncbi.nlm.nih.gov/32492677>

Impact of body position on lung deposition of nebulized surfactant in newborn piglets on nasal continuous positive airway pressure

<https://pubmed.ncbi.nlm.nih.gov/32604091>

Hepcidin status at 2 months in infants fed breast milk compared with formula

<https://pubmed.ncbi.nlm.nih.gov/32818935>

Effect of fentanyl boluses on cerebral oxygenation and hemodynamics in preterm infants: a prospective observational study

<https://pubmed.ncbi.nlm.nih.gov/32640456>

Increased use of therapeutic hypothermia in infants with milder neonatal encephalopathy due to presumed perinatal asphyxia

<https://pubmed.ncbi.nlm.nih.gov/32814327>

Maturation of esophageal motility and esophagogastric junction in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/32208394>

Combined multimodal cerebral monitoring and focused hemodynamic assessment in the first 72 h in extremely low gestational age infants

<https://pubmed.ncbi.nlm.nih.gov/32814317>

Hospital-acquired viral respiratory tract infections in the neonatal unit: a comparison with other inpatient groups

<https://pubmed.ncbi.nlm.nih.gov/32252052>

Lost in transition: is early respiratory support in newborn infants the best option?

<https://pubmed.ncbi.nlm.nih.gov/32674103>

Use of azithromycin for the prevention of lung injury in mechanically ventilated preterm neonates: A randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/32894857>

Maternal poppy seed tea ingestion and ensuing neonatal abstinence syndrome

<https://pubmed.ncbi.nlm.nih.gov/32629445>

A novel variant in G6PD (c.1375C>G) identified from a Hispanic neonate with extreme hyperbilirubinemia and low G6PD enzymatic activity

<https://pubmed.ncbi.nlm.nih.gov/32987391>

American Journal of Perinatology

Factors associated with formula feeding among late preterm neonates

<https://pubmed.ncbi.nlm.nih.gov/32521561>

Team stress and adverse events during neonatal tracheal intubations: A report from NEAR4NEOS

<https://pubmed.ncbi.nlm.nih.gov/31365934>

Retrospective analysis of short-term respiratory outcomes of three different steroids used in clinical practice in intubated preterm infants

<https://pubmed.ncbi.nlm.nih.gov/31382299>

Percutaneous inserted venous catheter via femoral vein in extremely low-birth-weight infants: A single-center experience

<https://pubmed.ncbi.nlm.nih.gov/31398730>

Factors that influence longitudinal growth from birth to 18 months of age in infants with gastroschisis

<https://pubmed.ncbi.nlm.nih.gov/31365930>

The characteristics and outcomes of cardiopulmonary resuscitation within the neonatal intensive care unit based on gestational age and unit level of care

<https://pubmed.ncbi.nlm.nih.gov/31365927>

Investigation of a common clinical approach to poor growth in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/31430817>

Assessment of mechanical fetal PR interval in intrahepatic cholestasis of pregnancy and its relationship with the severity of the disease

<https://pubmed.ncbi.nlm.nih.gov/31430816>

Journal of Neonatal-Perinatal Medicine

Commentary – Severe IVH: Time for newer, earlier interventions to prevent brain injury?

<https://content.iospress.com/download/journal-of-neonatal-perinatal-medicine/npm200539?id=journal-of-neonatal-perinatal-medicine%2Fnpm200539>

Early exit from neonatal therapeutic hypothermia: A single institution experience using MRI to guide decision-making

<https://www.ncbi.nlm.nih.gov/pubmed/32417801>

Neonates with hypoxic-ischemic encephalopathy treated with hypothermia: Observations in a large Canadian population and determinants of death and/or brain injury

<https://www.ncbi.nlm.nih.gov/pubmed/32310192>

Assessing pupil reaction to light using ultrasound in a sick neonate with hypoxic ischemic encephalopathy

<https://www.ncbi.nlm.nih.gov/pubmed/32176661>

Stridor in infants with hypoxic-ischemic encephalopathy and whole body hypothermia: A case series

<https://www.ncbi.nlm.nih.gov/pubmed/31985477>

Effects of xenon gas on human airway epithelial cells during hyperoxia and hypothermia

<https://www.ncbi.nlm.nih.gov/pubmed/32444566>

A randomized controlled trial of restricted versus standard fluid management in late preterm and term infants with transient tachypnea of the newborn

<https://www.ncbi.nlm.nih.gov/pubmed/32444567>

Electrical impedance segmentography: A promising tool for respiratory monitoring?

<https://www.ncbi.nlm.nih.gov/pubmed/32333555>

Glycerin suppositories used prophylactically in premature infants (supp): A pilot randomized controlled trial

<https://www.ncbi.nlm.nih.gov/pubmed/32083593>

The relationship between the location of neonatal clavicular fractures and predisposing factors

<https://www.ncbi.nlm.nih.gov/pubmed/31985476>

A review of gestational diabetes mellitus management, risk factors, maternal and neonatal outcomes in two major maternity hospitals in the United Arab Emirates: A report from Dubai

<https://www.ncbi.nlm.nih.gov/pubmed/32568122>

Prior breastfeeding experience and infant feeding at discharge among women with pregestational diabetes mellitus

<https://www.ncbi.nlm.nih.gov/pubmed/32007962>

Experiences of the mothers of infants hospitalized in the neonatal intensive care unit (NICU)

<https://www.ncbi.nlm.nih.gov/pubmed/32224533>

Early entrapment of fourth ventricle following Pseudomonas meningitis in extreme prematurity: Case report

<https://www.ncbi.nlm.nih.gov/pubmed/31796689>

A variable presentation of Joubert syndrome: Case report and a brief review

<https://www.ncbi.nlm.nih.gov/pubmed/32651337>

Maternal Health, Neonatology and Perinatology

Prevalence and associated factors of early initiation of breastfeeding among women delivered via Cesarean section in South Gondar zone hospitals Ethiopia, 2020 (PDF)

<https://mhnjournal.biomedcentral.com/track/pdf/10.1186/s40748-020-00121-3>

Neoreviews

Cow's milk protein allergy in term and preterm infants: clinical manifestations, immunologic pathophysiology, and management strategies

<https://www.ncbi.nlm.nih.gov/pubmed/33262206>

Immunologic properties of human milk and clinical implications in the neonatal population

<https://www.ncbi.nlm.nih.gov/pubmed/33262207>

Vaccination of term and preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/33262208>

Case 1: Skin discoloration in a preterm infant with flank mass, hematuria, and thrombocytopenia

<https://www.ncbi.nlm.nih.gov/pubmed/33262209>

Case 2: A profoundly hypotonic premature infant

<https://www.ncbi.nlm.nih.gov/pubmed/33262210>

Case 3: Term infant with delayed meconium passage and bilious emesis

<https://www.ncbi.nlm.nih.gov/pubmed/33262211>

Strip of the month: An antepartum emergency

<https://www.ncbi.nlm.nih.gov/pubmed/33262212>

Visual diagnosis: An unexpected brain lesion in a 2-month-old infant

<https://www.ncbi.nlm.nih.gov/pubmed/33262213>

Video corner: Where will you deliver this fetus with an abnormal echocardiogram?

<https://www.ncbi.nlm.nih.gov/pubmed/33262214>

JAMA Pediatrics

Addressing childhood poverty in pediatric clinical settings: The neonatal intensive care unit is a missed opportunity

<https://pubmed.ncbi.nlm.nih.gov/32926154>

Association of gestational age at birth with brain morphometry

<https://pubmed.ncbi.nlm.nih.gov/32955580>

Association between congenital cytomegalovirus and the prevalence at birth of microcephaly in the United States

<https://pubmed.ncbi.nlm.nih.gov/32926077>

Association between epidural analgesia during labor and risk of autism spectrum disorders in offspring

<https://pubmed.ncbi.nlm.nih.gov/33044486>

Combating the hidden health disparity of kernicterus in black infants: A review

<https://pubmed.ncbi.nlm.nih.gov/32628268>

Association of time with reliability of maternal recall of infant birth weight

<https://pubmed.ncbi.nlm.nih.gov/32364580>

BMC Pediatrics

Breastfeeding restored the gut microbiota in caesarean section infants and lowered the infection risk in early life (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02433-x.pdf>

Gestational weight gain and offspring's cognitive skills: a systematic review and meta-analysis (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02429-7.pdf>

Can an mhealth clinical decision-making support system improve adherence to neonatal healthcare protocols in a low-resource setting? (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02378-1.pdf>

Effectiveness of Alberta Family Integrated Care on infant length of stay in level II neonatal intensive care units: a cluster randomized controlled trial (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02438-6.pdf>

Hemiscrotal agenesis: a novel phenotype of a rare malformation (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02424-y.pdf>

Value of Galectin-3 assay in children with heart failure secondary to congenital heart diseases: a prospective study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02427-9.pdf>

Contemporary epidemiology of rising atrial septal defect trends across USA 1991–2016: a combined ecological geospatiotemporal and causal inferential study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02431-z.pdf>

"It brought hope and peace in my heart:" Caregivers perceptions on kangaroo mother care services in Malawi (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02443-9.pdf>

Maternal iodine status in a multi-ethnic UK birth cohort: associations with autism spectrum disorder

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02440-y.pdf>

The forehead is a better site than the sternum to check transcutaneous bilirubin during phototherapy in sick infants (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02450-w.pdf>

Citalopram intoxication in four week old infant (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02439-5.pdf>

Hypoxic/ischemic hits predispose to necrotizing enterocolitis in (near) term infants with congenital heart disease: a case control study

<https://pubmed.ncbi.nlm.nih.gov/33287760>

Intrauterine cytomegalovirus infection: a possible risk for cerebral palsy and related to its clinical features, neuroimaging findings: a retrospective study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02449-3.pdf>

Safety of sildenafil in premature infants with severe bronchopulmonary dysplasia (SILDI-SAFE): a multicenter, randomized, placebo-controlled, sequential dose-escalating, double-masked, safety study.

<https://pubmed.ncbi.nlm.nih.gov/33317479>

Pediatric Critical Care Medicine

Assessment of procedural distress in sedated/intubated children under 3 years old using the newborn infant parasympathetic evaluation: a diagnostic accuracy pilot study

<https://pubmed.ncbi.nlm.nih.gov/32740184>

Impact of infant positioning on cardiopulmonary resuscitation performance during simulated pediatric cardiac arrest: a randomized crossover study

<https://pubmed.ncbi.nlm.nih.gov/32826836>

Extubation failure and major adverse events secondary to extubation failure following neonatal cardiac surgery

<https://pubmed.ncbi.nlm.nih.gov/32804741>

New England Journal of Medicine

Antenatal dexamethasone for early preterm birth in low-resource countries (PDF)

<https://www.nejm.org/doi/pdf/10.1056/NEJMoa2022398?articleTools=true>

Antenatal glucocorticoids in low-resource settings — who, when, and where? (editorial)

<https://pubmed.ncbi.nlm.nih.gov/33369361>

Higher or lower hemoglobin transfusion thresholds for preterm infants

<https://pubmed.ncbi.nlm.nih.gov/33382931>

Lancet

No relevant content

JAMA

Neurodevelopmental outcomes at age 5 years after prophylactic early high-dose recombinant human erythropoietin for neuroprotection in very preterm infants

<https://pubmed.ncbi.nlm.nih.gov/33289818>

BMJ

No relevant content

Pediatric Infectious Disease Journal

Antibiotic utilization and infection among infants with abdominal wall defects

<https://pubmed.ncbi.nlm.nih.gov/32826725>

A neonate with fungal lung nodules mimicking pulmonary malignancy

<https://pubmed.ncbi.nlm.nih.gov/33093427>

Pediatric Cardiology

The risks of being tiny: The added risk of low weight for neonates undergoing congenital heart surgery

<https://pubmed.ncbi.nlm.nih.gov/32729052>

Fetal echocardiography is useful for screening fetuses with a family history of cardiomyopathy

<https://pubmed.ncbi.nlm.nih.gov/32844298>

Pediatric Neurology

Sarnat grading scale for neonatal encephalopathy after 45 years: An update proposal

<https://pubmed.ncbi.nlm.nih.gov/33069006>

Neuroimaging perspectives of perinatal arterial ischemic stroke

<https://pubmed.ncbi.nlm.nih.gov/33038575>

Characterization of death in infants with neonatal seizures

<https://pubmed.ncbi.nlm.nih.gov/32980743>

Obstetrics and Gynecology

Delayed umbilical cord clamping after birth: ACOG committee opinion summary, number 814

<https://pubmed.ncbi.nlm.nih.gov/33214527>

Prevalence of home births and associated risk profile and maternal characteristics, 2016–2018

<https://pubmed.ncbi.nlm.nih.gov/33156198>

American Journal of Obstetrics & Gynecology

Timing of primary maternal cytomegalovirus infection and rates of vertical transmission and fetal consequences

<https://pubmed.ncbi.nlm.nih.gov/32460972>

The effect of intrapartum oxygen supplementation on category II fetal monitoring

<https://pubmed.ncbi.nlm.nih.gov/32585226>

Fetal heart rate pattern in term or near-term cerebral palsy: a nationwide cohort study

<https://pubmed.ncbi.nlm.nih.gov/32497609>

Fetal molding examined with transperineal ultrasound and associations with position and delivery mode. <https://pubmed.ncbi.nlm.nih.gov/32585224>

How often do we incidentally find a fetal abnormality at the routine third-trimester growth scan? A population-based study

<https://pubmed.ncbi.nlm.nih.gov/32504567>

Variability in the efficacy of a standardized antenatal steroid treatment was independent of maternal or fetal plasma drug levels: evidence from a sheep model of pregnancy

<https://pubmed.ncbi.nlm.nih.gov/32445634>

Racial disparities in the administration of antenatal corticosteroids in women with preterm birth

<https://pubmed.ncbi.nlm.nih.gov/32679210>

Hospital Pediatrics

No relevant content

BASIC SCIENCE SELECTIONS

Brain-derived neurotrophic factor mediates neuroprotection of mesenchymal stem cell-derived extracellular vesicles against severe intraventricular hemorrhage in newborn rats

Ahn SY, Sung DY, Kim YE, et al. *Stem Cells Transl Med.*

<https://www.ncbi.nlm.nih.gov/pubmed/33319929>

Preterm birth impedes structural and functional development of cerebellar purkinje cells in the developing baboon cerebellum

Barron T and Kim JH. *Brain Sci.*

<https://www.ncbi.nlm.nih.gov/pubmed/33255158>

The serine protease HTRA-1 is a biomarker for rop and mediates retinal neovascularization

Owen LA, Shirer K, Collazo SA, et al. *Front Mol Neurosci.*

<https://www.ncbi.nlm.nih.gov/pubmed/33281553>

Magnetic resonance imaging correlates of white matter gliosis and injury in preterm fetal sheep exposed to progressive systemic inflammation

Galinsky R, Looij YVD, Mitchell N, et al. *Int J Mol Sci*.
<https://www.ncbi.nlm.nih.gov/pubmed/33255257>

Endothelial to mesenchymal transition during neonatal hyperoxia-induced pulmonary hypertension

Gong J, Feng Z, Peterson AL, et al. *J Pathol*.
<https://www.ncbi.nlm.nih.gov/pubmed/32815166>

Maternal methyl-donor micronutrient supplementation during pregnancy promotes skeletal muscle differentiation and maturity in newborn and weaning pigs

He Q, Zou T, Chen J, et al. *Front Nutr*.
<https://www.ncbi.nlm.nih.gov/pubmed/33330599>

Bile salt-stimulated lipase activity in donor breast milk influenced by pasteurization techniques

Koh J, Victor AF, Howell ML, et al. *Front Nutr*.
<https://www.ncbi.nlm.nih.gov/pubmed/33282897>

The bivariate NRIP1/ZEB2 RNA marker permits non-invasive presymptomatic screening of pre-eclampsia

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<https://www.ncbi.nlm.nih.gov/pubmed/33318568>

Expression profiles of long non-coding RNAs during fetal lung development

Shen JX, Bao ZD, Zhu W, et al. *Exp Ther Med*.
<https://www.ncbi.nlm.nih.gov/pubmed/33093882>

Abnormal placental DNA methylation variation in spontaneous preterm birth

Wang XM, Tian FY, Xie CB, et al. *J Matern Fetal Neonatal Med*.
<https://www.ncbi.nlm.nih.gov/pubmed/33327822>

Hyperoxia exposure arrests alveolarization in neonatal rats via PTEN-induced putative kinase 1/Parkin and Nip3-like protein X-mediated mitophagy disorders

Yu X, Sun Y, Cai Q, et al. *Int J Mol Med*.
<https://www.ncbi.nlm.nih.gov/pubmed/33125104>

Prophylactic inhibition of NF-kappaB expression in microglia leads to attenuation of hypoxic ischemic injury of the immature brain

Zaghloul N, Kurepa D, Bader MY, et al. *J Neuroinflammation*.
<https://www.ncbi.nlm.nih.gov/pubmed/33261624>

Mechanism of lncRNA H19 in regulating pulmonary injury in hyperoxia-induced bronchopulmonary dysplasia newborn mice

Zhang L, Wang P, Shen Y, et al. *Am J Perinatol*.
<https://www.ncbi.nlm.nih.gov/pubmed/33285606>

Protective effects of resveratrol on hyperoxia-induced lung injury in neonatal rats by alleviating apoptosis and ROS production

Zhu X, Lei X, Wang J, et al. *J Matern Fetal Neonatal Med*.
<https://www.ncbi.nlm.nih.gov/pubmed/30890012>

ADDITIONAL JOURNAL SELECTIONS

Ultrashort inspiratory times homogenize ventilation distribution in an inhomogeneous two-compartment model of the neonatal lung

Baumgartner J, Klotz D, Schneider H, et al. *Pediatr Pulmonol*.

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Ayoub D, Elmashad A, Rowisha M, et al. *Pediatr Pulmonol*.

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Short and long-term outcomes of chronic pulmonary hypertension in preterm infants managed using a standardized algorithm

Baczynski M, Kelly E, McNamara PJ, et al. *Pediatr Pulmonol*.

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Composition and origin of lung fluid proteome in premature infants and relationship to respiratory outcome

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<https://www.ncbi.nlm.nih.gov/pubmed/33301538>

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Karkoutli AA, Brumund MR, Evans AK, et al. *Int J Pediatr Otorhinolaryngol*.

<https://www.ncbi.nlm.nih.gov/pubmed/33157458>

Single nucleotide vitamin D receptor polymorphisms (FokI, BsmI, ApaI, and TaqI) in the pathogenesis of prematurity complications

Kosik K, Szpecht D, Al-Saad SR, et al. *Sci Rep*.

<https://www.ncbi.nlm.nih.gov/pubmed/33273558>

Early treatment versus expectant management of hemodynamically significant patent ductus arteriosus for preterm infants

Mitra S, Scrivens A, M von Kursell A, et al. *Cochrane Database Syst Rev*.

<https://www.ncbi.nlm.nih.gov/pubmed/33301630>

Respiratory outcomes of "new" bronchopulmonary dysplasia in adolescents: A multicenter study

Pérez-Tarazona S, Esteban SR, García-García ML, et al. *Pediatr Pulmonol*.

<https://www.ncbi.nlm.nih.gov/pubmed/33314679>

Prenatal inflammation enhances antenatal corticosteroid-induced fetal lung maturation

F Schmidt A, Kannan PS, Bridges J, et al. *JCI Insight*.

<https://www.ncbi.nlm.nih.gov/pubmed/33328385>

