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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – November 2021

[Neonatal MIS-C: managing the cytokine storm](#)

Sumita Saha, Priyanka Pal, Devdeep Mukherjee, et al. *Pediatrics*.

The authors discuss a term female infant with Neonatal MIS-C who presented with an erythematous rash and fever from day 8 with persistent thrombocytopenia managed as late onset sepsis. After recurrence of fever, watery diarrhea and generalized maculopapular rash on day 25, she was found to have tachypnea, tachycardia, anemia, thrombocytopenia, hypoalbuminemia and edema. RT-PCR was positive for SARS-CoV-2. She subsequently developed cardiogenic shock, pulmonary edema and cardiac arrest later on, requiring invasive ventilation. Echocardiography revealed decreased ejection fraction, left ventricular dysfunction and pericardial effusion with elevated brain natriuretic peptide, D-dimer and ferritin. She was managed with Methylprednisolone, immunoglobulin, and enoxaparin. After a prolonged course, she was discharged home on a tapering dose of methylprednisolone. This case highlights the cardiac and dermatological manifestations of neonatal MIS-C.

[Enteral iron supplementation in infants born extremely preterm and its positive correlation with neurodevelopment; post hoc analysis of the preterm erythropoietin neuroprotection trial randomized controlled trial](#)

Kendell R German, Phuong T Vu, Bryan A Comstock, et al. *J Pediatr*.

The authors describe a post hoc analysis of Preterm Erythropoietin (Epo) Neuroprotection Trial (PENUT) trial evaluating if increased iron dose is associated with improved neurodevelopment at 2 years as assessed by the Bayley Scales of Infant Development (BSID-III). Enteral iron dose was a mean of 3.6 mg/kg/d in placebo group (n=355) and 4.8 mg/kg/d in Epo group (n= 337). A significant positive association was seen between BSID-III cognitive scores and iron dose at 60 days (P = .03). Greater iron doses were associated with greater motor and language scores but did not reach statistical significance. The authors conclude that increased iron supplementation in infants born preterm, at the doses administered in the PENUT Trial, may have positive neurodevelopmental effects, particularly in infants treated with Epo.

[Surfactant nebulization to prevent intubation in preterm infants: a systematic review and meta-analysis](#)

Vincent D Gaertner, Janine Thomann, Dirk Bassler, et al. *Pediatrics*.

This systematic review included 1095 infants in 9 trials and compared surfactant nebulization with standard treatment (either noninvasive respiratory support (7/9 studies) or intratracheal surfactant administration (2/9 studies). Primary outcome was intubation rate at 72 hours after birth. Surfactant nebulization compared with standard care significantly reduced intubation rate at 72 hours after birth

(226 of 565 infants [40.0%] vs 231 of 434 infants [53.2%]; risk ratio [RR]: 0.73, 95% confidence interval [CI]: 0.63-0.84; number needed to treat: 8; 95% CI: 5-14)). There was no difference in neonatal morbidities or mortality.

[Early magnetic resonance imaging predicts 30-month outcomes after therapeutic hypothermia for neonatal encephalopathy](#)

Ashley M Bach, Annie Y Fang, Sonia Bonifacio, et al. *J Pediatr*.

The authors sought to evaluate the association of therapeutic hypothermia with MRI findings and 30-month neurodevelopment in term neonatal encephalopathy. They found that therapeutic hypothermia is associated with lower rates of brain injury and adverse 30-month outcomes after neonatal encephalopathy. The predictive accuracy of MRI in the first week of life is unchanged by therapeutic hypothermia. Normal MRI remains reassuring for normal 30-month outcome after therapeutic hypothermia.

[Neurodevelopmental outcomes following intrauterine growth restriction and very preterm birth](#)

Chiara Sacchi, Jonathan O'Muircheartaigh, Dafnis Batalle, et al. *J Pediatr*.

The authors sought to evaluate whether intrauterine growth restriction (IUGR) adds further neurodevelopmental risk to that posed by very preterm birth alone in terms of alterations in brain growth and poorer toddlerhood outcomes. Participants were 314 infants of very preterm birth enrolled in the Evaluation of Preterm Imaging Study who were subsequently followed up in toddlerhood. They found that IUGR might confer a neurodevelopmental risk that is greater than that posed by very preterm alone, in terms of both alterations in brain growth and poorer toddlerhood outcomes.

[Continuous chest compressions with asynchronous ventilations increase carotid blood flow in the perinatal asphyxiated lamb model](#)

Payam Vali, Amy Lesneski, Morgan Hardie, et al. *Pediatr Res*.

In a perinatal asphyxiated cardiac arrest lamb model, continuous chest compressions (CC) with asynchronous ventilation at a rate of 120 CC + 30 breaths/min was associated with greater left carotid blood flow and cerebral oxygen delivery when compared to the conventional 3:1 compression to ventilation ratio, providing 90 CC + 30 breaths/min.

[Transmission of cytomegalovirus via breast milk in low birth weight and premature infants: a systematic review and meta-analysis \(PDF\)](#)

Xiaolin Hu, Wei Hu, Xuan Sun, et al. *BMC Pediatr*.

A retrospective study looking at eighteen studies and 1920 low birth weight infants, found that the pooled CMV infection rate from breast milk for infants fed untreated breast milk was significantly higher than those fed frozen breast milk. Similarly, the pooled CMV infection rate for infants fed untreated breast milk was significantly higher than those with mixed feeding. Studies on the long-term outcomes of CMV infection transmitted from breast milk are needed to address the optimal feeding practice.

[Randomised trial of epinephrine dose and flush volume in term newborn lambs \(PDF\)](#)

Deepika Sankaran, Praveen K Chandrasekharan, Sylvia F Gugino, et al. *Arch Dis Child Fetal Neonatal Ed*.

In a lamb model of newborn resuscitation, forty term lambs were randomized into four groups, each receiving a combination of 0.01 or 0.03 mg/kg epinephrine injection and 1 or 3 mL saline flush. Cardiac arrest was induced by cord occlusion then the cord was clamped and cut for resuscitation on a nearby radiant warmer. Resuscitation began with PPV 5 min after cardiac arrest followed by chest compressions after 1 minute of PPV. 10 lambs had ROSC prior to epinephrine. The other 30 lambs received the first dose of epinephrine via low-lying UVC 5 minutes after the start of PPV. Lambs were

monitored 2 hours after ROSC. ROSC was achieved in all high-dose high-flush lambs and was achieved in only 2/6 low-dose low-flush lambs. The 0.03 mg/kg dose was associated with increased incidence of ROSC and faster time to ROSC. The 3 mL flush did not increase the incidence of ROSC, but it did improve the time to ROSC. The authors conclude that 0.03 mg/kg epinephrine followed by 3 mL saline flush was associated with increased ROSC and quicker ROSC in this lamb model.

[Comparison of the efficacy and safety of cuffed versus uncuffed endotracheal tubes for infants in the intensive care setting: a pilot, unblinded RCT](#)

Rebecca E Thomas, Simon Erickson, Bruce Hullett, et al. *Arch Dis Child Fetal Neonatal Ed.*

This single-center study randomized 75 neonates to intubation with either the Avanos Microcuff cuffed-ETT or the Smiths Medical Portex uncuffed ETT. Patients were ≥ 35 weeks PMA and ≥ 3 kg and were ventilated using the Draeger VN500 without leak compensation. The primary outcome was the percentage of time (recorded hourly) that there was optimal leak of 10-20%. The cuff inflation was adjusted as needed to target optimal leak. There was no difference in the number of patients who achieved optimal leak, but the uncuffed group spent more time with no leak and less time with optimal leak than the cuffed group. Excessive leak was not different between groups. The uncuffed group also had 28% of patients re-intubated to adjust ETT size while there were no ETT size changes in the cuffed group. There were no differences in FiO₂, ventilator pressures, or post-extubation complications. The authors conclude that cuffed ETTs better support optimal leak and reduce re-intubations for ETT size without causing additional airway injury.

[Intermittent bolus feeding does not enhance protein synthesis, myonuclear accretion, or lean growth more than continuous feeding in a premature piglet model](#)

Marko Rudar, Jane K Naberhuis, Agus Suryawan, et al. *Am J Physiol Endocrinol Metab.*

Using a newborn piglet model, the authors determined if prematurity impacts how muscle mass accrual responds to feeding strategies. Following preterm delivery, pigs were fed equivalent amounts of formula as either intermittent boluses (INT) or continuously (CONT) for 21 days. They found INT does not increase skeletal muscle protein synthesis, myonuclear accretion, or lean growth more than CONT. They speculate that the attenuated anabolic response of muscle to INT may contribute to deficits in lean mass that many premature infants exhibit in adulthood.

OTHER NOTEWORTHY PUBLICATIONS

COVID – 19

SARS-CoV-2 antibodies in breast milk after vaccination

<https://pubmed.ncbi.nlm.nih.gov/34408089>

Neonatal MIS-C: managing the cytokine storm

<https://pubmed.ncbi.nlm.nih.gov/34433686>

Correspondence: Fertility rates and birth outcomes after ChAdOx1 nCoV-19 (AZD1222) vaccination

<https://pubmed.ncbi.nlm.nih.gov/34688353/>

COVID-19 can cause severe intussusception in infants: case report and literature review

<https://pubmed.ncbi.nlm.nih.gov/34232921/>

Recent Experience: Corticosteroids as a first-line therapy in children with multisystem inflammatory syndrome and COVID-19-related myocardial damage

<https://pubmed.ncbi.nlm.nih.gov/34260481/>

Prolonged rectal shedding of SARS-CoV-2 in a 22-day-old-neonate: a case report (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02976-7.pdf>

Maternal and perinatal outcomes of pregnant women with SARS-CoV-2 infection at the time of birth in England: national cohort study (PDF)

<https://www.ajog.org/action/showPdf?pii=S0002-9378%2821%2900565-2>

Presence of SARS-CoV-2 antibodies in lactating women and their infants following BNT162b2 messenger RNA vaccine (PDF)

[https://www.ajog.org/article/S0002-9378\(21\)00831-0/pdf](https://www.ajog.org/article/S0002-9378(21)00831-0/pdf)

Pediatrics

Update on phototherapy and childhood cancer in a northern California cohort

<https://pubmed.ncbi.nlm.nih.gov/34716218>

Variation of patent ductus arteriosus treatment in very low birth weight infants

<https://pubmed.ncbi.nlm.nih.gov/34675131>

Promoting human milk and breastfeeding for the very low birth weight infant

<https://pubmed.ncbi.nlm.nih.gov/34635582>

Surfactant nebulization to prevent intubation in preterm infants: a systematic review and meta-analysis

<https://pubmed.ncbi.nlm.nih.gov/34711678>

Advances in neonatal acute kidney injury

<https://pubmed.ncbi.nlm.nih.gov/34599008>

Reducing benzodiazepine exposure by instituting a guideline for dexmedetomidine usage in the NICU

<https://pubmed.ncbi.nlm.nih.gov/34610948>

Scalp nodules and facial droop in an infant

<https://pubmed.ncbi.nlm.nih.gov/34610947>

Journal of Pediatrics

Low birth weight and congenital heart disease: current status and future directions

<https://pubmed.ncbi.nlm.nih.gov/34419451/>

Maternal inflammation in pregnancy: setting the pattern for brain development during infancy and beyond

<https://pubmed.ncbi.nlm.nih.gov/34126122/>

Acid suppression does not improve laryngomalacia outcomes but treatment for oropharyngeal dysphagia might be protective

<https://pubmed.ncbi.nlm.nih.gov/34186104/>

Quality of life outcomes in primary caregivers of children with esophageal atresia

<https://pubmed.ncbi.nlm.nih.gov/34329689/>

Association of maternal immune activation during pregnancy and neurologic outcomes in offspring

<https://pubmed.ncbi.nlm.nih.gov/33965413/>

Early magnetic resonance imaging predicts 30-month outcomes after therapeutic hypothermia for neonatal encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/34237346/>

Enteral iron supplementation in infants born extremely preterm and its positive correlation with neurodevelopment; post hoc analysis of the preterm erythropoietin neuroprotection trial randomized controlled trial

<https://pubmed.ncbi.nlm.nih.gov/34324880/>

Longitudinal reference values for cerebral ventricular size in preterm infants born at 23-27 weeks of gestation

<https://pubmed.ncbi.nlm.nih.gov/34214587/>

Impact of deferred cord clamping on mortality and severe neurologic injury in twins born at <30 weeks of gestation

<https://pubmed.ncbi.nlm.nih.gov/34332971/>

Intracranial hemorrhage and 2-year neurodevelopmental outcomes in infants born extremely preterm

<https://pubmed.ncbi.nlm.nih.gov/34217769/>

Neurodevelopmental outcomes following intrauterine growth restriction and very preterm birth

<https://pubmed.ncbi.nlm.nih.gov/34245768/>

Effects of correcting for prematurity on executive function scores of children born very preterm at school age

<https://pubmed.ncbi.nlm.nih.gov/34217768/>

Perinatal and child factors mediate the association between preeclampsia and offspring school performance

<https://pubmed.ncbi.nlm.nih.gov/34216627/>

Single-center comparison of outcomes following cardiac surgery in low birth weight and standard birth weight neonates

<https://pubmed.ncbi.nlm.nih.gov/34214588/>

Improvement initiative: end-tidal carbon monoxide measurement in newborns receiving phototherapy

<https://pubmed.ncbi.nlm.nih.gov/34260896/>

Neonatal birth trauma: analysis of yearly trends, risk factors, and outcomes

<https://pubmed.ncbi.nlm.nih.gov/34242670/>

Thyroid hormone function in small for gestational age term newborns

<https://pubmed.ncbi.nlm.nih.gov/34214586/>

Lung ultrasound for prediction of bronchopulmonary dysplasia in extreme preterm neonates: a prospective diagnostic cohort study

<https://pubmed.ncbi.nlm.nih.gov/34237347/>

Association between elevated urine neutrophil gelatinase-associated lipocalin and postoperative acute kidney injury in neonates

<https://pubmed.ncbi.nlm.nih.gov/34371091/>

Clinical features in a large cohort of patients with 22q11.2 deletion syndrome

<https://pubmed.ncbi.nlm.nih.gov/34284033/>

Parental post-traumatic stress and healthcare use in infants with complex cardiac defects

<https://pubmed.ncbi.nlm.nih.gov/34216630/>

Clinical impact of heritable thrombophilia on neonatal-onset thromboembolism: a nationwide study in Japan

<https://pubmed.ncbi.nlm.nih.gov/34245770/>

Effect of early feeding on intestinal permeability and inflammation markers in infants with genetic susceptibility to type 1 diabetes: a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/34293372/>

Computational fluid dynamic modeling reveals nonlinear airway stress during trachea development

<https://pubmed.ncbi.nlm.nih.gov/34284034/>

Strict glycemic control in very low birthweight infants using continuous glucose monitoring reduces dysglycemic

<https://pubmed.ncbi.nlm.nih.gov/34702502/>

New AAP guidelines for evaluation and treatment of infants 8-60 days old

<https://pubmed.ncbi.nlm.nih.gov/34702503/>

A novel neonatal encephalopathy rating scale

<https://pubmed.ncbi.nlm.nih.gov/34702500/>

Increased survival following fetoscopic endoluminal tracheal occlusion for diaphragmatic hernia

<https://pubmed.ncbi.nlm.nih.gov/34702501/>

Pediatric Research

Brief report: Acute care visits vary by race and ethnicity among publicly insured preterm infants

<https://pubmed.ncbi.nlm.nih.gov/33958716/>

Acute care utilization disparities among publicly insured preterm infants

<https://pubmed.ncbi.nlm.nih.gov/34545204/>

Stimulating and maintaining spontaneous breathing during transition of preterm infants

<https://pubmed.ncbi.nlm.nih.gov/31216570/>

Continuous chest compressions with asynchronous ventilations increase carotid blood flow in the perinatal asphyxiated lamb model

<https://pubmed.ncbi.nlm.nih.gov/33469187/>

Necrotizing enterocolitis intestinal barrier function protection by antenatal dexamethasone and surfactant-D in a rat model (PDF)

<https://www.nature.com/articles/s41390-020-01334-0.pdf>

Maternal antibiotic exposure disrupts microbiota and exacerbates hyperoxia-induced lung injury in neonatal mice

<https://pubmed.ncbi.nlm.nih.gov/33469177/>

Blood metabolomics in infants enrolled in a dose escalation pilot trial of budesonide in surfactant

<https://pubmed.ncbi.nlm.nih.gov/33469180/>

Reducing lung liquid volume in fetal lambs decreases ventricular constraint

<https://pubmed.ncbi.nlm.nih.gov/33504958/>

Echocardiographic assessment of fetal cardiac function in the uterine artery ligation rat model of IUGR

<https://pubmed.ncbi.nlm.nih.gov/33504964/>

Cerebral oxygenation in preterm infants during maternal singing combined with skin-to-skin care

<https://pubmed.ncbi.nlm.nih.gov/33262445/>

Cerebral regional oxygen saturation variability in neonates following cardiac surgery

<https://pubmed.ncbi.nlm.nih.gov/32967003/>

Transcutaneous carbon dioxide pattern and trend over time in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/33469188/>

Cerebellar volumes and language functions in school-aged children born very preterm

<https://pubmed.ncbi.nlm.nih.gov/33469182/>

Cannabis use and measurement of cannabinoids in plasma and breast milk of breastfeeding mothers

<https://pubmed.ncbi.nlm.nih.gov/33469174/>

Neuroimaging and neurodevelopmental outcome after early fetal growth restriction: NEUROPROJECT—FGR

<https://pubmed.ncbi.nlm.nih.gov/33469173/>

Regional splanchnic oxygen saturation for preterm infants in the first week after birth: reference values

<https://pubmed.ncbi.nlm.nih.gov/33504960/>

Effects of tilt on cerebral hemodynamics measured by NeoDoppler in healthy neonates (PDF)

<https://www.nature.com/articles/s41390-020-01354-w.pdf>

Impact of being large-for-gestational-age on neonatal mortality and morbidities in extremely premature infants

<https://pubmed.ncbi.nlm.nih.gov/33504968/>

Family Reflections: Maternal contact in the NICU: Moms DO Know Best

<https://pubmed.ncbi.nlm.nih.gov/34702973/>

Archives of Disease in Childhood - Fetal & Neonatal Edition

Thermal management with and without servo-controlled system in preterm infants immediately after birth: a multicentre, randomised controlled study

<https://www.ncbi.nlm.nih.gov/pubmed/33597230>

Randomised trial of epinephrine dose and flush volume in term newborn lambs (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/578.full.pdf>

Association of maternal body mass index with intellectual disability risk

<https://www.ncbi.nlm.nih.gov/pubmed/33849956>

Osteopathic manipulative treatment to improve exclusive breast feeding at 1 month

<https://www.ncbi.nlm.nih.gov/pubmed/33789971>

Viability and thresholds for treatment of extremely preterm infants: survey of UK neonatal professionals (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/596.full.pdf>

Time to desaturation in preterm infants undergoing endotracheal intubation (PDF)

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Administration of parenteral nutrition during therapeutic hypothermia: a population level observational study using routinely collected data held in the National Neonatal Research Database (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/608.full.pdf>

Comparison of the efficacy and safety of cuffed versus uncuffed endotracheal tubes for infants in the intensive care setting: a pilot, unblinded RCT

<https://www.ncbi.nlm.nih.gov/pubmed/33879529>

Predictive Intelligent Control of Oxygenation (PRICO) in preterm infants on high flow nasal cannula support: a randomised cross-over study

<https://www.ncbi.nlm.nih.gov/pubmed/33972265>

Respiratory support after delayed cord clamping: a prospective cohort study of at-risk births at $\geq 35+0$ weeks gestation (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/627.full.pdf>

Neurodevelopmental outcome of patients with congenital gastrointestinal malformations: a systematic review and meta-analysis (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/635.full.pdf>

Aqueous chlorhexidine 1% versus 2% for neonatal skin antiseptics: a randomised non-inferiority trial (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/643.full.pdf>

Intrapartum group B Streptococcal prophylaxis and childhood weight gain

<https://www.ncbi.nlm.nih.gov/pubmed/33958387>

Early lung ultrasound affords little to the prediction of bronchopulmonary dysplasia

<https://www.ncbi.nlm.nih.gov/pubmed/33990385>

Interface leakage during neonatal CPAP treatment: a randomised, cross-over trial (PDF)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8543197/pdf/archdischild-2021-321579.pdf>

Association of Total Sarnat Score with brain injury and neurodevelopmental outcomes after neonatal encephalopathy (PDF)

<https://fn.bmj.com/content/fetalneonatal/106/6/669.full.pdf>

Prospective comparison of thermometers used in very preterm infants

<https://www.ncbi.nlm.nih.gov/pubmed/33963007>

Parenteral lipid emulsions in the preterm infant: current issues and controversies

<https://www.ncbi.nlm.nih.gov/pubmed/33514630>

Letter: Parenteral nutrition for preterm infants: correcting for arachidonic and docosahexaenoic acid may not suffice

<https://www.ncbi.nlm.nih.gov/pubmed/34016652>

Letter: Reply to 'Parenteral nutrition for preterm infants: correcting for arachidonic and docosahexaenoic acid may not suffice'

<https://www.ncbi.nlm.nih.gov/pubmed/34131040>

Images in neonatal medicine: Mysterious ECG with a simple explanation in a preterm infant

<https://www.ncbi.nlm.nih.gov/pubmed/33495371>

Images in neonatal medicine: Fulminant fatal necrotising fasciitis in an extremely preterm infant

<https://www.ncbi.nlm.nih.gov/pubmed/33106274>

Images in neonatal medicine: Congenital herpes simplex virus infection in a 26-week extremely premature infant

<https://www.ncbi.nlm.nih.gov/pubmed/32895291>

Journal of Perinatology

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Neonatology

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American Journal of Perinatology

Predicting adverse outcomes in monochorionic-diamniotic twins: the role of intertwin discrepancy in middle cerebral artery doppler measurements and the cerebroplacental ratio

<https://pubmed.ncbi.nlm.nih.gov/34282577/>

Parental perspectives on the postpartum bonding experience after neonatal intensive care unit transfer to a referral hospital

<https://pubmed.ncbi.nlm.nih.gov/32512609/>

Survival, morbidities, and developmental outcomes among low birth weight infants with congenital heart defects

<https://pubmed.ncbi.nlm.nih.gov/32485756/>

Changes in delivery timing for high-risk pregnancies in the United States

<https://pubmed.ncbi.nlm.nih.gov/32526779/>

Quality improvement efforts reduce incidence of surgical necrotizing enterocolitis and related deaths

<https://pubmed.ncbi.nlm.nih.gov/32512607/>

Clinical features, treatment courses, and distribution of cytomegalovirus genotypes among thrombocytopenia patients aged younger than 12 months

<https://pubmed.ncbi.nlm.nih.gov/32526777/>

Juggling multiple roles amidst uncertainty: the Asian father's perspective of an infant in neonatal intensive care unit

<https://pubmed.ncbi.nlm.nih.gov/32526778/>

Central apnea of prematurity: does sex matter?

<https://pubmed.ncbi.nlm.nih.gov/32578186/>

Plasma citrulline as a biomarker for early diagnosis of necrotizing enterocolitis in preterm infants

<https://pubmed.ncbi.nlm.nih.gov/32604444/>

Journal of Neonatal-Perinatal Medicine

No new content

Maternal Health, Neonatology and Perinatology

Outcomes of multiple gestation births compared to singleton: analysis of multicenter KID database (pdf)

<https://mhnjournal.biomedcentral.com/track/pdf/10.1186/s40748-021-00135-5.pdf>

Neoreviews

A look back at bioethics: William L. Meadow, 1948–2019

<https://pubmed.ncbi.nlm.nih.gov/34725136/>

Placenta accreta spectrum

<https://pubmed.ncbi.nlm.nih.gov/34725137/>

Multifetal gestations and associated perinatal risks

<https://pubmed.ncbi.nlm.nih.gov/34725138/>

Cardiovascular disease in pregnancy

<https://pubmed.ncbi.nlm.nih.gov/34725139/>

Hypertensive disorders of pregnancy

<https://pubmed.ncbi.nlm.nih.gov/34725140/>

Hyponatremia, metabolic acidosis, and abnormal newborn screen in a preterm neonate

<https://pubmed.ncbi.nlm.nih.gov/34725141/>

Jaundice in a preterm infant twelve hours after birth

<https://pubmed.ncbi.nlm.nih.gov/34725142/>

Like mother, like daughter: feeding intolerance in the NICU

<https://pubmed.ncbi.nlm.nih.gov/34725143/>

An unusual monochorionic pregnancy

<https://pubmed.ncbi.nlm.nih.gov/34725144/>

Skin erosions in a newborn

<https://pubmed.ncbi.nlm.nih.gov/34725145/>

An abnormal echocardiogram and telemetry tracing in a late preterm infant

<https://pubmed.ncbi.nlm.nih.gov/34725146/>

JAMA Pediatrics

The effect of babyseq on pediatric and genomic research—more than baby steps

<https://pubmed.ncbi.nlm.nih.gov/34424259/>

Effects on growth of smell and taste of milk during tube feeding of preterm infants - a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/34369975/>

Psychosocial effect of newborn genomic sequencing on families in the babyseq project a randomized clinical trial

<https://pubmed.ncbi.nlm.nih.gov/34424265/>

BMC Pediatrics

Prevalence and associated factors of perinatal asphyxia in newborns admitted to neonatal intensive care unit at the University of Gondar Comprehensive Specialized Hospital, Northwest Ethiopia, Ethiopia (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03019-x.pdf>

Testing positive pressure delivered from commercial and WHO-style pediatric bubble CPAP devices (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-03006-2.pdf>

Hypospadias: clinical approach, surgical technique and long-term outcome (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02941-4.pdf>

Effects of minimally invasive and traditional surgeries on the quality of life of children with congenital heart disease: a retrospective propensity score-matched study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02978-5.pdf>

Transmission of cytomegalovirus via breast milk in low birth weight and premature infants: a systematic review and meta-analysis (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02984-7.pdf>

Newborn low birth weight: do socio-economic inequality still persist in India? (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02988-3.pdf>

Protocol: Pentoxifylline optimal dose finding trial in preterm neonates with suspected late onset sepsis (PTX-trial) (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02975-8.pdf>

Retinal vein occlusion with cerebral infarction in a preterm neonate: a case report (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02989-2.pdf>

Airway injury and pneumomediastinum associated with less invasive surfactant administration in a premature neonate: a case report (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02981-w.pdf>

Poor weight gain and its predictors among preterm neonates admitted at Muhimbili National Hospital in Dar-es-salaam, Tanzania: a prospective cohort study (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02971-y.pdf>

The association between low birth weight and dental caries among 11-to-13-year-old school age children in Ningbo, China (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02968-7.pdf>

Elucidating the context for implementing nonpharmacologic care for neonatal opioid withdrawal syndrome: a qualitative study of perinatal nurses (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02955-y.pdf>

Treatment device for neonatal birth asphyxia related Hypoxic Ischemic Encephalopathy (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02988-3.pdf>

The effects of exposure to HIV in neonates at a referral hospital in South Africa (PDF)

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Clinical experience of use of percutaneous peripheral arterial cannulation in sick neonates in a developing country (PDF)

<https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-021-02943-2.pdf>

Pediatric Critical Care Medicine

Diaphragm activity pre and post extubation in ventilated critically ill infants and children measured with transcutaneous electromyography

<https://pubmed.ncbi.nlm.nih.gov/34534162/>

Frequency of extracorporeal membrane oxygenation support and outcomes after implementation of a structured PICU network in neonates and children: a prospective population-based study in the west of France

<https://pubmed.ncbi.nlm.nih.gov/33950889/>

New England Journal of Medicine

Correspondence: Fetal surgery for severe left diaphragmatic hernia

<https://pubmed.ncbi.nlm.nih.gov/34818499/>

Lancet

No new content

JAMA

Comment 1: Iatrogenic delivery for suspected fetal growth restriction and childhood school outcomes

<https://pubmed.ncbi.nlm.nih.gov/34751718/>

Comment 2: Iatrogenic delivery for suspected fetal growth restriction and childhood school outcomes

<https://pubmed.ncbi.nlm.nih.gov/34751717/>

Response: Iatrogenic delivery for suspected fetal growth restriction and childhood school outcomes-Reply

<https://pubmed.ncbi.nlm.nih.gov/34751714/>

Use of confidence intervals in interpreting nonstatistically significant results

<https://pubmed.ncbi.nlm.nih.gov/34812882/>

BMJ

Effect of nutritionally modified infant formula on academic performance: linkage of seven dormant randomised controlled trials to national education data

<https://pubmed.ncbi.nlm.nih.gov/34759005/>

Use of whole genome sequencing to determine genetic basis of suspected mitochondrial disorders: cohort study

<https://pubmed.ncbi.nlm.nih.gov/34732400/>

Pediatric Infectious Disease Journal

Decline in the incidence of neonatal sepsis in rural Gadchiroli, India during the twenty-one years (1998–2019) following the home-based neonatal care field-trial

<https://pubmed.ncbi.nlm.nih.gov/34292267/>

Is an antenatal screening for chlamydia trachomatis necessary in the current society?

<https://pubmed.ncbi.nlm.nih.gov/34321448/>

Pediatric Cardiology

No new content

Pediatric Neurology

Family-centered care for children and families impacted by neonatal seizures: advice from parents

<https://pubmed.ncbi.nlm.nih.gov/34509000/>

Early use of transcranial doppler ultrasonography to stratify neonatal encephalopathy

<https://pubmed.ncbi.nlm.nih.gov/34509001/>

Risk factors for periventricular leukomalacia in preterm infants: a systematic review, meta-analysis, and grade-based assessment of certainty of evidence

<https://pubmed.ncbi.nlm.nih.gov/34537463/>

Obstetrics and Gynecology

Outcomes in twins compared with singletons subsequent to preterm prelabor rupture of membranes

<https://pubmed.ncbi.nlm.nih.gov/34619719/>

Pregnant individuals' views on fetal tissue research in the United States

<https://pubmed.ncbi.nlm.nih.gov/34619743/>

Prevalence of delayed cord clamping among U.S. hospitals by facility characteristics

<https://pubmed.ncbi.nlm.nih.gov/34619715/>

American Journal of Obstetrics & Gynecology

Competing risks model for prediction of small-for-gestational-age neonates from biophysical markers at 19 to 24 weeks' gestation

<https://pubmed.ncbi.nlm.nih.gov/33901487/>

Are newborn outcomes different for term babies who were exposed to antenatal corticosteroids?

<https://pubmed.ncbi.nlm.nih.gov/33957112/>

Fetomaternal hemorrhage: evaluation of recurrence within a large integrated healthcare system

<https://pubmed.ncbi.nlm.nih.gov/33961809/>

Nifedipine disturbs fetal cardiac function during hypoxemia in a chronic sheep model at near term gestation

<https://pubmed.ncbi.nlm.nih.gov/33887239/>

Hospital Pediatrics

Ethnic disparities in the care of opioid-exposed newborns in Colorado birthing hospitals

<https://pubmed.ncbi.nlm.nih.gov/34649934/>

Delirium in the NICU: A point prevalence study

<https://pubmed.ncbi.nlm.nih.gov/34711646/>

The Time is Now: Equity and Inclusion in Newborn Quality Improvement

<https://pubmed.ncbi.nlm.nih.gov/34649933/>

BASIC SCIENCE SELECTIONS

[Intermittent bolus feeding does not enhance protein synthesis, myonuclear accretion, or lean growth more than continuous feeding in a premature piglet model](#)

Marko Rudar, Jane K Naberhuis, Agus Suryawan, et al. *Am J Physiol Endocrinol Metab.*

[Caffeine inhibits choroidal neovascularization through mitigation of inflammatory and angiogenesis activities](#)

Christine M Sorenson, Yong-Seok Song, Ismail S Zaitoun, et al. *Front Cell Dev Biol.*

[Processing human milk to increase nutrient density for preterm infants](#)

Hande Z Ulus, Merve Yasemin Tekbudak and Jonathan C Allen. *J Hum Lact.*

[Fetal neuroprotective mechanism of maternal magnesium sulfate: proteomic analysis](#)

Lee Reicher, Hanin Dabaja, Yuval Ginsberg, et al. *J Mol Neurosci.*

[Premature differentiation of nephron progenitor cell and dysregulation of gene pathways critical to kidney development in a model of preterm birth](#)

Aleksandra Cwiek, Masako Suzuki, Kimberly deRonde, et al. *Sci Rep.*

[Partial protective effects of melatonin on developing brain in a rat model of chorioamnionitis](#)

Geraldine Favrais, Elie Saliba, Léa Savary, et al. *Sci Rep.*

[Hyperoxia leads to transient endocrine alterations in the neonatal rat during postnatal development](#)

Mirjam Kowallick, Meray Serdar, Boyka Markova, et al. *Front Pediatr.*

[Long chain polyunsaturated fatty acids docosahexaenoic acid and arachidonic acid supplementation in the suckling and the post-weaning diet influences the immune system development of T helper Type-2 bias brown norway rat offspring](#)

Dhruvesh Patel, Marnie Newell, Susan Goruk, et al. *Front Nutr*.

CLINICAL

[Associations between exposure to perfluoroalkyl substances and birth outcomes: A meta-analysis](#)

Ze Yang, Huan-Yu Liu, Qiao-Yun Yang, et al. *Chemosphere*.

[The glucose infusion rate of parenteral nutrition in the first week of life in preterm infants: an observational study](#)

Dina Angelika, Risa Etika, Martono Tri Utomo, et al. *Ital J Pediatr*.

[Association between brain structural network efficiency at term-equivalent age and early development of cerebral palsy in very preterm infants](#)

Julia E Kline, Weihong Yuan, Karen Harpster, et al. *Neuroimage*.

[Meta-analysis of lung ultrasound scores for early prediction of bronchopulmonary dysplasia](#)

Lucilla Pezza, Almudena Alonso-Ojembarrena, Yasser Elsayed, et al. *Ann Am Thorac Soc*.

[Effect of maternal dietary niacin intake on congenital anomalies: a systematic review and meta-analysis](#)

Shanika Palawaththa, Rakibul M Islam, Dragan Illic, et al. *Eur J Nutr*.