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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – December 2022

Dual medication therapy (acetaminophen and ibuprofen) for the management of patent ductus arteriosus in preterm infants: a systematic review and meta-analysis
Sanket D Shah, Kartikeya Makker, Mingyu Zhang, et al. *J Perinatol.*

The authors examined the efficacy of dual medication therapy (DMT: acetaminophen and ibuprofen) vs. single medication therapy (SMT: ibuprofen) for medical management of PDA in preterm infants. They identified two randomized controlled trials and four non-randomized studies that compared DMT to SMT for management of hemodynamically significant PDA. There were no differences in the rates of successful PDA closure following the first treatment course between DMT and SMT, nor were there significant differences in secondary outcomes and adverse events including PDA ligation, bronchopulmonary dysplasia, and necrotizing enterocolitis. The authors found no evidence for superiority of DMT over SMT in PDA management.

Clinical significance of early pulmonary hypertension in preterm infants
Sanne Arjaans, Marian W F Fries, Mirthe H Schoots, et al. *J Pediatr.*

This single-center, prospective cohort study of infants with a gestational age <30 weeks and/or a birth weight <1000 g aims to characterize different phenotypes of early pulmonary hypertension (PH) in preterm infants and their respective associations with bronchopulmonary dysplasia (BPD) and survival. Infants were prospectively enrolled and echocardiographic evaluation for early PH was performed between day 3 and day 10 after birth which was read by a single blinded cardiologist. The clinical team was not made aware of the results of any research echocardiogram, but only of the results of echocardiograms performed because of a clinical indication. Echo features of PH were pre-defined and infants categorized as Early PH, PPHN, Flow PH and PH without shunt based on Echo findings. Early PH was identified in 55% of 104 included infants, including 21% with persistent PH of the newborn (PPHN), 61% with flow-associated PH, and 18% PH without shunt. Only PPHN was associated with placental fetal vascular malperfusion, lower gestational age, and low Apgar score. Both PPHN and flow PH were associated with the development of BPD. Early PH was associated with poorer survival, driven by PPHN. The study concluded that Early PH is highly prevalent (55%) in preterm infants and associated with the development of BPD, independent of the phenotype of PH.

Comparison of point-of-care versus central laboratory testing of electrolytes, hemoglobin, and bilirubin in neonates
Ha-Young Choi, William Corder, Eshetu Tefera, et al. *Am J Perinatol.*

This retrospective study describes the reliability of point-of-care testing of electrolytes, hemoglobin, and bilirubin in a sample of 47 NICU patients. Electrolyte, hemoglobin, and bilirubin results obtained from capillary blood were matched with a POC value from the same sample or another sample less than 1-

hour apart. There were 355-paired sodium/potassium, 139 paired hemoglobin, and 197 paired bilirubin values analyzed. All POC tests were performed by a trained respiratory therapist using the GEM Premier 4000 blood gas analyzer. POC sodium values were lower (133.5 ± 5.8 mmol/L) than CL (140.2 ± 5.8 mmol/L), p <0.00001 with poor agreement (LCC = 0.49; MD = 6.7; 95% LOA: −13.6 to 0.14). POC potassium values were lower (4.6 ± 0.98 mmol/L) than CL (4.98 ± 1.24mEq/L), p < 0.0001, but with better concordance and agreement. (LCC = 0.6; MD = 0.4; 95% LOA: −2.3 to 1.4). There were no differences in hemoglobin between POC (14.3 ± 3.2 g/dL) and CL (14.4 ± 3.1 g/dL), p = 0.2 with good LCC (0.93) and in bilirubin values between POC (6.0 ± 3.2 mg/dL) and CL (5.8 ± 3.0 mg/dL), MD = 0.18, and p = 0.07. The results from this study suggest that POC hemoglobin, bilirubin levels and to some degree POC potassium levels can be relied upon to make clinical judgments in neonates.

Multi-strain probiotics for extremely preterm infants: a randomized controlled trial
Belal Alshaikh, Jumana Samara, Shirin Moossavi, et al. *Pediatr Res.*

In extremely preterm infants, probiotics were found to help achieve enteral feeds sooner. It was also found that probiotics may improve tolerance for cow's milk protein supplements. Multi-strain probiotics can sustain intestinal Bifidobacterium and Lactobacillus until hospital discharge and showed a marked reduction in fecal candida abundance.

Outcomes of neonates with a 10-min apgar score of zero: a systematic review and meta-analysis
Bita Khorram, Keira C Kilmartin, Maya Dahan, et al. *Neonatology*.

Twenty-eight studies of 820 neonates with moderate risk of bias were included. Approximately 2 in 5 neonates with a 10-min Apgar score of zero survived, and 1 in 5 survive without moderate-to-severe NDI survived. Survival has improved over the years, especially since the era of therapeutic hypothermia.

Effects of prophylactic indomethacin on intraventricular hemorrhage and adverse outcomes in neonatal intensive care unit
Colleen J Miller, Pavel Prusakov, Jacqueline Magers, et al. *J Perinatol.*

A total of 421 infants were included from three of Nationwide Children's Hospital delivery centers. Of those 255 (61%) received PI. After adjustment by inverse proportionality treatment weighting (IPTW), no differences were found in incidence of intraventricular hemorrhage (IVH) at the time of the first ultrasound, 31% vs. 33% in PI and control groups respectively (p = 0.68). The rate of rise of serum creatinine from baseline to day of life four was significantly higher in the PI group (0.14 mg/dl PI and 0.03 mg/dl control, p < 0.001).

Effects of prophylactic indomethacin on morbidity and mortality in infants <25 weeks' gestation: a protocol driven intention to treat analysis
Ronald I Clyman and Nancy K Hills. *J Perinatol.*

Despite being at high risk for PDA-related morbidities, prophylactic inomethacin (PINDO) did not appear to alter the rates of our primary and secondary outcomes in infants <25 weeks. Among PINDO epoch infants only 24% still had a PDA at 7-8 days. There were no significant differences in the incidence of death/BPD or of secondary outcomes (BPD, death, necrotizing enterocolitis/spontaneous perforations, or intraventricular hemorrhage (grades 3 or 4)) in either unadjusted or adjusted comparisons between infants born in a PINDO epoch and those born in the Expectant Management epoch.

Two useful umbilical biomarkers for therapeutic hypothermia decision in patients with hypoxic ischemic encephalopathy with perinatal asphyxia: netrin-1 and neuron specific enolase
Ufuk Cakir, Burak Ceran and Cuneyt Tayman. *Fetal Pediatr Pathol.*

This study investigated the values of umbilical cord netrin-1 (NT-1) and neuron specific enolase (NSE) levels in the early diagnosis of HIE stage II/III induced by neonatal asphyxia. NT-1 and NSE levels were measured from the umbilical cord immediately after birth and results compared between HIE II/III and the healthy control group. Cutoff values for serum NT-1 and NSE were determined with receiver-operating characteristics curves and the area under the curve (AUC) was used to determine the diagnostic value of NT-1 and NSE levels in infants diagnosed with HIE II/III. NT-1 cutoff value for HIE was 292.3 pg/mL and 34.7 ng/mL for NSE (AUC: 990, sensitivity: 94%, specificity 100% and AUC: 1.0, sensitivity: 100% vs. specificity 100%, respectively). NT-1 and NSE represent candidate biomarkers with high reliability in the prediction in newborns with moderate-to-severe HIE.

LncRNA and mRNA profiles of human milk-derived exosomes and their possible roles in protecting against necrotizing enterocolitis
Xiangyun Yan, Linjie Liu, Shuwen Yao, et al. *Food Funct.*

This study investigates the potentially therapeutic role of HM-Exos in an NEC rat model via comprehensive lncRNA and mRNA expression profiles. Exosomes were extracted from the colostrum of healthy lactating mothers and their functions identified in an NEC rat model. Although both exosomes from term human breast milk (Term-Exos) and exosomes from preterm human breast milk (Pre-Exos) alleviated the severity of NEC, Pre-Exos seemed to better promote the proliferation of intestinal epithelial cells in vivo. This study reveals for the first time the important roles of human milk derived lncRNAs and mRNAs in protecting against necrotizing enterocolitis.

Late-onset sepsis among very preterm infants
Dustin D Flannery, Erika M Edwards, Sarah A Coggins, et al. *Pediatrics.*

Prospective observational study of very preterm infants born 401 to 1500 g and/or 22 to 29 weeks' gestational age (GA) from 2018-2020, from 774 participating Vermont Oxford Network centers. Late-onset sepsis was defined as isolation of a pathogenic bacteria from blood and/or cerebrospinal fluid, or fungi from blood, obtained >3 days after birth. The incidence of late-onset sepsis was 88.5 per1000 from a cohort of 118 650 infants with highest incidence in infants born ≤23 weeks GA (322.0 per 1000, 99% CI [306.3-338.1]). Infected infants increased risk of home oxygen, tracheostomy and gastrostomy, and lower survival. Late-onset sepsis continues to be a significant problem in very preterm infants, with coagulase negative staphylococci (29.3%) and Staphylococcus aureus (23.0%) being the most common organisms.

Preterm brain injury and neurodevelopmental outcomes: a meta-analysis
Philippa Rees, Caitriona Callan, Karan R Chadda, et al. *Pediatrics.*

This is a systematic review and meta-analysis investigating neurodevelopmental outcomes among preterm infants after intraventricular hemorrhage (IVH) and white matter injury (WMI). The analysis included 38 studies published from 2000 and 2021 reporting 3-year neurodevelopmental outcomes for preterm infants with IVH or WMI compared with preterm infants without injury. The results showed an increased risk of moderate-severe neurodevelopmental impairment after IVH grade 1 to 2 and IVH grade 3 to 4. Children with IVH grade 3 to 4 had markedly higher risks of cerebral palsy, motor, cognitive, hearing, and visual impairment, and children with WMI had much higher risks of cerebral palsy. Mild IVH, severe IVH, and WMI are all associated with adverse neurodevelopmental outcomes.

OTHER NOTEWORTHY PUBLICATIONS – December, 2022

COVID-19

Detection of messenger RNA covid-19 vaccines in human breast milk
https://www.ncbi.nlm.nih.gov/pubmed/36156636
Mother to newborn transmission of sars-cov-2 infection: evolution of evidence in 1.5 years of COVID-19 pandemic
https://www.ncbi.nlm.nih.gov/pubmed/35738288
Six-month outcomes of infants born to people with SARS-CoV-2 in pregnancy
https://pubmed.ncbi.nlm.nih.gov/36317478/

Pediatrics

Late-onset sepsis among very preterm infants
https://pubmed.ncbi.nlm.nih.gov/36366916/
Technical report: use of point-of-care ultrasonography in the nicu for diagnostic and procedural purposes
https://publications.aap.org/pediatrics/article/150/6/e2022060052/190109/Use-of-Point-of-Care-Ultrasonography-in-the-NICU
Preterm brain injury and neurodevelopmental outcomes: a meta-analysis
https://pubmed.ncbi.nlm.nih.gov/36330752/
The case for advance care planning in the NICU
https://pubmed.ncbi.nlm.nih.gov/36321383/

Journal of Pediatrics

Decision-making for extremely preterm infants: a qualitative systematic review
https://www.ncbi.nlm.nih.gov/pubmed/35940293
A qualitative study of parental perspectives on prenatal counseling at extreme prematurity
https://www.ncbi.nlm.nih.gov/pubmed/36096177
Periviable decision-making in a new era of parentage: ethical and legal considerations and provider perspectives on shared decision-making in diverse family structures
https://www.ncbi.nlm.nih.gov/pubmed/35948190
Preterm birth is associated with lower academic attainment at age 12 years: a matched cohort study by linkage of population-based datasets
https://www.ncbi.nlm.nih.gov/pubmed/35944725
Definitions of bronchopulmonary dysplasia: which one should we use?
https://www.ncbi.nlm.nih.gov/pubmed/35636562
Clinical significance of early pulmonary hypertension
in preterm infants https://www.ncbi.nlm.nih.gov/pubmed/35934129
Adverse maternal fetal environment partially mediates disparate outcomes in non-white neonates with major congenital heart disease
https://www.ncbi.nlm.nih.gov/pubmed/35803301
Postnatal imaging for prediction of outcome in patients with left-sided congenital diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/35944713
Prospective risk stratification identifies healthcare utilization associated with home oxygen therapy for infants with bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/35934128
Oscillatory mechanics response to inhaled bronchodilators in very preterm infants: a retrospective study
https://www.ncbi.nlm.nih.gov/pubmed/35944717
Prenatal diagnosis of intrahepatic congenital portosystemic shunt
https://www.ncbi.nlm.nih.gov/pubmed/36027976

Pediatric Research

Electroencephalographic studies in growth-restricted and small-for-gestational-age neonates
https://pubmed.ncbi.nlm.nih.gov/35197567

Caffeine treatment started before injury reduces hypoxic–ischemic white-matter damage in neonatal rats by regulating phenotypic microglia polarization
https://pubmed.ncbi.nlm.nih.gov/35220399

Intrauterine inflammation exacerbates maladaptive remodeling of the immature myocardium after preterm birth in lambs
https://pubmed.ncbi.nlm.nih.gov/35277596

The impact of opioid exposure during pregnancy on the human neonatal immune profile
https://pubmed.ncbi.nlm.nih.gov/35288639

Hematological changes in neonatal mice with phlebotomy-induced anemia
https://pubmed.ncbi.nlm.nih.gov/35322186

Metabolome and microbiome multi-omics integration from a murine lung inflammation model of bronchopulmonary dysplasia
https://pubmed.ncbi.nlm.nih.gov/35338351

Fetal sex and maternal fasting glucose affect neonatal cord blood-derived endothelial progenitor cells
https://pubmed.ncbi.nlm.nih.gov/35184136

Early neonatal heart rate variability patterns in different subtypes of perinatal hypoxic-ischemic brain injury
https://pubmed.ncbi.nlm.nih.gov/35292726

Growth and body composition trajectories in infants meeting the WHO growth standards study requirements
https://pubmed.ncbi.nlm.nih.gov/35296784

Model for severe intracranial hemorrhage and role of early indomethacin in extreme preterm infants
https://pubmed.ncbi.nlm.nih.gov/35301420

Ventilation-to-perfusion relationships and right-to-left shunt during neonatal intensive care in infants with congenital diaphragmatic hernia
https://pubmed.ncbi.nlm.nih.gov/35306536

Multi-strain probiotics for extremely preterm infants: a randomized controlled trial
https://pubmed.ncbi.nlm.nih.gov/35314794

Early-life factors associated with neurobehavioral outcomes in preterm infants during NICU hospitalization
https://pubmed.ncbi.nlm.nih.gov/35338349

Clinical impact of NEC-associated sepsis on outcomes in preterm infants
https://pubmed.ncbi.nlm.nih.gov/35352003

Infants with Down syndrome and congenital heart disease have altered peri-operative immune responses
https://pubmed.ncbi.nlm.nih.gov/35352006

Transcutaneous carbon dioxide monitoring during therapeutic hypothermia for neonatal encephalopathy
https://pubmed.ncbi.nlm.nih.gov/35352004

Mild hypoxic-ischemic encephalopathy (HIE): timing and pattern of MRI brain injury
https://pubmed.ncbi.nlm.nih.gov/35354930

Renal oxygenation measured by near-infrared spectroscopy in preterm neonates in the first week
https://pubmed.ncbi.nlm.nih.gov/35354931

Emotional and attention-deficit/hyperactivity disorder symptoms of preterm vs. full-term children during COVID-19 pandemic restrictions
https://pubmed.ncbi.nlm.nih.gov/35354927

Association between prenatal PM2.5 exposure and the risk of large for gestational age
https://pubmed.ncbi.nlm.nih.gov/35277595

Archives of Disease in Childhood - Fetal & Neonatal Edition

No new content

Journal of Perinatology

Predicting clinical outcomes using artificial intelligence and machine learning in neonatal intensive care units: a systematic review
https://pubmed.ncbi.nlm.nih.gov/35562414/

Developmental changes of the fetal and neonatal thyroid gland and functional consequences on the cardiovascular system
https://pubmed.ncbi.nlm.nih.gov/36376450/

The association between fetal gender in twin pregnancies and the risk of pediatric infectious diseases of the offspring: A population-based cohort study with long-term follow up
https://pubmed.ncbi.nlm.nih.gov/35790850/

Associations between maternal residential rurality and maternal health, access to care, and very low birthweight infant outcomes
https://pubmed.ncbi.nlm.nih.gov/35821103/

Perinatal outcomes for rural obstetric patients and neonates in rural-located and metropolitan-located hospitals
https://pubmed.ncbi.nlm.nih.gov/35963889/

Delayed-interval delivery in multiple gestation pregnancies: neonatal mortality, morbidity, and development
https://pubmed.ncbi.nlm.nih.gov/35906282/

The effects of betamethasone on the amplitude integrated EEG of infants born at 34- or 35-weeks gestation
https://pubmed.ncbi.nlm.nih.gov/35618748/

Non-invasive continuous cardiac output monitoring in infants with hypoxic ischaemic encephalopathy
https://pubmed.ncbi.nlm.nih.gov/36056257/

Brain injury following mild hypoxic-ischemic encephalopathy in neonates–Ten-year experience in a tertiary perinatal center
https://pubmed.ncbi.nlm.nih.gov/35953534/

Comparative evaluation of approach to cardiovascular care in neonatal encephalopathy undergoing therapeutic hypothermia
https://pubmed.ncbi.nlm.nih.gov/35859183/

Effects of prophylactic indomethacin on intraventricular hemorrhage and adverse outcomes in neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/35752688/

Patent ductus arteriosus and spontaneous intestinal perforation in a cohort of preterm infants
https://pubmed.ncbi.nlm.nih.gov/35589970/

Dual medication therapy (acetaminophen and ibuprofen) for the management of patent ductus arteriosus in preterm infants: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/36008521/

Effects of prophylactic indomethacin on morbidity and mortality in infants <25 weeks' gestation: a protocol driven intention to treat analysis
https://pubmed.ncbi.nlm.nih.gov/36310242/

Costs associated with acute kidney injury in critically Ill neonates with patent Ductus arteriosus: pediatric health information system (PHIS) analysis
https://pubmed.ncbi.nlm.nih.gov/36071104/

Evaluation and validation of a prediction model for extubation success in very preterm infants
https://pubmed.ncbi.nlm.nih.gov/36153409/

Low flow nasal cannula requirement among preterm infants: predictors and description of clinical course
https://pubmed.ncbi.nlm.nih.gov/36045221/

Hospital variation in extremely preterm birth

https://pubmed.ncbi.nlm.nih.gov/36104499/
Which postnatal corticosteroid regimen is best for prevention of bronchopulmonary dysplasia?
https://pubmed.ncbi.nlm.nih.gov/36104500/
Management of cardiovascular dysfunction in neonates with hypoxic ischaemic encephalopathy; a national survey of current practice in the UK
https://pubmed.ncbi.nlm.nih.gov/36203082/
The effect of patent ductus arteriosus treatment with paracetamol on pulmonary vascular resistance
https://pubmed.ncbi.nlm.nih.gov/35585179/
The role of furosemide and fluid management for a hemodynamically significant patent ductus arteriosus in premature infants
https://pubmed.ncbi.nlm.nih.gov/35840707/
The ductus arteriosus in neonates with critical congenital heart disease
https://pubmed.ncbi.nlm.nih.gov/35840708/

Neonatology
Outcomes of neonates with a 10-min apgar score of zero: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/36044835/
Serum creatinine patterns in neonates treated with therapeutic hypothermia for neonatal encephalopathy
https://pubmed.ncbi.nlm.nih.gov/35797956/
Recurrent late-onset sepsis in extremely low birth weight infants is associated with motor deficits in early school age
https://pubmed.ncbi.nlm.nih.gov/36327925/
Cerebral hemodynamics and regional oxygen metabolism during ductus arteriosus ligation in preterm infants
https://pubmed.ncbi.nlm.nih.gov/35981517/
“Mild’’ hypoxic-ischaemic encephalopathy and therapeutic hypothermia: a survey of clinical practice and opinion from 35 countries
https://pubmed.ncbi.nlm.nih.gov/36202069/
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Retinopathy of prematurity is a biomarker for pathological processes in the immature brain
https://pubmed.ncbi.nlm.nih.gov/36252528/
MRI characterization of blood flow and oxygen delivery in the fetal sheep whilst exposed to sildenafil citrate
https://pubmed.ncbi.nlm.nih.gov/36252551/
Early hyperglycemia in very preterm infants is associated with reduced white matter volume and worse cognitive and motor outcomes at 2.5 years
https://pubmed.ncbi.nlm.nih.gov/36108597/
Pilot study to evaluate a new method for endotracheal administration of surfactant in neonatal respiratory distress syndrome: fiberscope assisted surfactant therapy (fast)
https://pubmed.ncbi.nlm.nih.gov/36030773/
Audio feature analysis for acoustic pain detection in term newborns
https://pubmed.ncbi.nlm.nih.gov/36116434/
Vaginal delivery is associated with neurochemical evidence of increased neuroaxonal remodelling in infants from the KUNO-Kids health study: cross-sectional analysis
https://pubmed.ncbi.nlm.nih.gov/36108619/
Mind the b2: life-threatening neonatal complications of a strict vegan diet during pregnancy
https://pubmed.ncbi.nlm.nih.gov/36122554/
Hyperglycemia and lactic acidosis associated with linezolid therapy in an extremely premature infant
https://pubmed.ncbi.nlm.nih.gov/36183690/
Less-invasive diagnostic approaches for infants with suspected differences of sex development: a case report of a 297-g neonate with ambiguous genitalia
https://pubmed.ncbi.nlm.nih.gov/36273444/

American Journal of Perinatology

Changing tocolytic exposures among neonatal intensive care unit admitted preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35045576

Preventing brain damage from hypoxic–ischemic encephalopathy in neonates: update on mesenchymal stromal cells and umbilical cord blood cells
https://www.ncbi.nlm.nih.gov/pubmed/33853147

A survey of neonatal nurses on mydriatic regimens used in neonatal retinopathy of prematurity eye examinations
https://www.ncbi.nlm.nih.gov/pubmed/33784771

Comparison of point-of-care versus central laboratory testing of electrolytes, hemoglobin, and bilirubin in neonates
https://www.ncbi.nlm.nih.gov/pubmed/33757138

Nucleated red blood cells as markers of perinatal adaptation in preterm neonates receiving minimally invasive surfactant therapy
https://www.ncbi.nlm.nih.gov/pubmed/33757139

Effect of early parent participation program on physiological stability in preterm infants: a randomized controlled trial
https://www.ncbi.nlm.nih.gov/pubmed/33757140

Factors associated with umbilical venous catheter malposition in newborns: a tertiary center experience
https://www.ncbi.nlm.nih.gov/pubmed/33853146

Effects of placental transfusion on late preterm infants admitted to a mother–baby unit
https://www.ncbi.nlm.nih.gov/pubmed/33723833

Astaxanthin reduces the severity of intestinal damage in a neonatal rat model of necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/33853144

Comparison of high CPAP versus NIPPV in preterm neonates: a retrospective cohort study
https://www.ncbi.nlm.nih.gov/pubmed/33853143

Association between prenatal marijuana and tobacco smoke exposures and small for gestational age at birth
https://www.ncbi.nlm.nih.gov/pubmed/36007919

Journal of Neonatal-Perinatal Medicine

No new articles

Maternal Health, Neonatology and Perinatology

No new articles

Neoreviews

Primary mitochondrial disorders in the neonate
https://pubmed.ncbi.nlm.nih.gov/36450643/

Congenital disorders of red blood cells
https://pubmed.ncbi.nlm.nih.gov/36450647/

Evaluating genetic disorders in the neonate: the role of exome sequencing in the NICU
https://pubmed.ncbi.nlm.nih.gov/36450644/

JAMA Pediatrics

See COVID section

BMC Pediatrics

Demographic, clinical profile and outcomes of neonates admitted to neonatal intensive care unit of Dekemhare Hospital, Eritrea
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03779-0.pdf

Time from symptom onset may influence C-reactive protein utility in the diagnosis of bacterial infections in the NICU
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03783-4.pdf
Phylogenetic analysis of congenital rubella virus from Indonesia: a case report
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03775-4.pdf
Regular lung recruitment maneuvers during high-frequency oscillatory ventilation in extremely preterm infants: a randomized controlled trial
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03780-7.pdf
Development of a nutritional risk screening tool for preterm children in outpatient settings during a complementary feeding period: a pilot study
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03774-5.pdf
Combined negative pressure wound therapy with irrigation and dwell time and artificial dermis prevents infection and promotes granulation formation in a ruptured giant omphalocele: a case report
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03755-8.pdf
Effect of neonatal reticulocytosis on glucose 6-phosphate dehydrogenase (G6PD) activity and G6PD deficiency detection: a cross-sectional study
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03740-1.pdf
Care practices and short-term clinical outcomes of very low birth weight infants in Yangtze River Delta in China
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03749-6.pdf
Neonatal outcomes from a quasi-experimental clinical trial of Family Integrated Care versus Family-Centered Care for preterm infants in U.S. NICUs
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03732-1.pdf
Adaptation of Essential Care for Every Baby educational program to improve infant outcomes in the context of Zika
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03710-7.pdf

Pediatric Critical Care Medicine
No new content

New England Journal of Medicine
Infantile and childhood hydrocephalus
https://pubmed.ncbi.nlm.nih.gov/36449422/
Neonatal outcomes after use of buprenorphine during pregnancy
https://pubmed.ncbi.nlm.nih.gov/36449426/
Methylprednisolone for heart surgery in infants — a randomized, controlled trial
https://pubmed.ncbi.nlm.nih.gov/36342116/
In utero enzyme-replacement therapy for infantile-onset Pompe's disease
https://pubmed.ncbi.nlm.nih.gov/36351280/
Prenatal enzyme-replacement therapy
https://pubmed.ncbi.nlm.nih.gov/36351269/
Trial of beremagene geperpavec (b-vec) for dystrophic epidermolysis bullosa
https://pubmed.ncbi.nlm.nih.gov/36516090/
Hereditary geniospasm
https://pubmed.ncbi.nlm.nih.gov/36507674/
The coming of age of topical gene therapy for dystrophic epidermolysis bullosa
https://pubmed.ncbi.nlm.nih.gov/36516094/
Topical gene therapy for epidermolysis bullosa
https://pubmed.ncbi.nlm.nih.gov/36516095/
Lentiviral gene therapy for artemis-deficient SCID
https://pubmed.ncbi.nlm.nih.gov/36546626/
Recombinant adamts13 for hereditary thrombotic thrombocytopenic purpura
https://pubmed.ncbi.nlm.nih.gov/36546627/

Oxygen delivery in the treatment of anemia
https://pubmed.ncbi.nlm.nih.gov/36546628/
Gene therapy for artemis-deficient SCID
https://pubmed.ncbi.nlm.nih.gov/36546634/

Lancet
New WHO recommendations for the care of preterm or low birthweight infants have the potential to transform maternal and newborn health-care delivery
https://pubmed.ncbi.nlm.nih.gov/36400093/
Effects of race and ethnicity on perinatal outcomes in high-income and upper-middle-income countries: an individual participant data meta-analysis of 2198655 pregnancies
https://pubmed.ncbi.nlm.nih.gov/36502843/

JAMA
"This is our COVID"—what physicians need to know about the pediatric RSV surge
https://pubmed.ncbi.nlm.nih.gov/36368010/
Investigational RSV vaccine given during pregnancy protects newborns
https://pubmed.ncbi.nlm.nih.gov/36511938/

BMJ
Formula milk companies are exploiting legal loopholes, say campaigners
https://doi.org/10.1136/bmj.o2926
Over £175m investment in genomic research aims to detect more genetic disorders at birth
https://pubmed.ncbi.nlm.nih.gov/36523186/
Fetal monitoring in labour: summary and update of NICE guidance
https://pubmed.ncbi.nlm.nih.gov/36526275/

Pediatric Infectious Disease Journal
Changes in etiology of invasive bacterial infections in infants under 3 months of age in Korea, 2006–2020
https://pubmed.ncbi.nlm.nih.gov/36375095/
Dosing and monitoring of isoniazid in a preterm, extremely low birth weight infant after in utero exposure to mycobacterium tuberculosis: a case study and literature review
https://pubmed.ncbi.nlm.nih.gov/36375097/
Incidence of early and late onset neonatal sepsis in Suriname: a national tertiary hospital birth-cohort study
https://pubmed.ncbi.nlm.nih.gov/36102696/
Risk factors for 30-day mortality in neonates with carbapenem-resistant *A. Baumannii* sepsis
https://pubmed.ncbi.nlm.nih.gov/36375101/
Fatal early-onset sepsis caused by intrauterine transmission of serogroup Y meningococcus
https://pubmed.ncbi.nlm.nih.gov/36375102/
Detection of parechovirus and enterovirus among infants evaluated for late-onset sepsis in the neonatal intensive care unit: the viral respiratory infections in the neonatal intensive care unit-parechovirus-enterovirus study
https://pubmed.ncbi.nlm.nih.gov/36102733/
A systematic review to evaluate a possible association between congenital toxoplasmosis and preterm labor
https://pubmed.ncbi.nlm.nih.gov/36375103/
Mycobacterium abscessus pneumonia in an immunonormal infant
https://pubmed.ncbi.nlm.nih.gov/36102716/

Pediatric Cardiology

Prevalence and associated factors of long-term growth failure in infants with congenital heart disease who underwent cardiac surgery before the age of one
https://www.ncbi.nlm.nih.gov/pubmed/35661240

Institutional trend in device selection for transcatheter PDA closure in premature infants
https://www.ncbi.nlm.nih.gov/pubmed/35430709

Screening echocardiography identifies risk factors for pulmonary hypertension at discharge in premature infants with bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/35488130

Prenatal diagnosis of the right aortic arch: change in detection rate, the status of associated anomalies, and perinatal outcomes in 137 fetuses
https://www.ncbi.nlm.nih.gov/pubmed/35568727

Long qt and hearing loss in high-risk infants prospective study registry
https://www.ncbi.nlm.nih.gov/pubmed/35661239

Severe restriction of a VSD and development of pulmonary atresia in a patient with transposition of the great arteries: fetal diagnosis
https://www.ncbi.nlm.nih.gov/pubmed/35767020

Pediatric Neurology

No relevant articles

Obstetrics and Gynecology

Obstetric and neonatal outcomes 1 or more years after a diagnosis of breast cancer
https://pubmed.ncbi.nlm.nih.gov/36357983/

Association between obesity and fetal acidosis at scheduled cesarean delivery
https://pubmed.ncbi.nlm.nih.gov/36357997/

Comparison of pregnancy outcomes of previable and periviable rupture of membranes after laser photocoagulation for twin–twin transfusion syndrome allostatic load and adverse pregnancy outcomes
https://pubmed.ncbi.nlm.nih.gov/36357989/

Rh immune globulin after the transfusion of RhD-positive blood in a patient with a partial D antigen
https://pubmed.ncbi.nlm.nih.gov/36357991/

American Journal of Obstetrics & Gynecology

Syphilis in pregnancy: an ongoing public health threat
https://pubmed.ncbi.nlm.nih.gov/35932881

Cell-free DNA screening positive for monosomy X: clinical evaluation and management of suspected maternal or fetal Turner syndrome
https://pubmed.ncbi.nlm.nih.gov/35841934

A comprehensive analysis of the association between placental pathology and recurrent preterm birth
https://pubmed.ncbi.nlm.nih.gov/35764136

Group vs traditional prenatal care for improving racial equity in preterm birth and low birthweight: the Centering and Racial Disparities randomized clinical trial study
https://pubmed.ncbi.nlm.nih.gov/36113576

The role of intraamniotic inflammation in threatened midtrimester miscarriage
https://pubmed.ncbi.nlm.nih.gov/35843271

The prenatal detection of distal tracheoesophageal fistulas in fetuses diagnosed with esophageal atresia
https://pubmed.ncbi.nlm.nih.gov/35940225

Low-dose antenatal betamethasone treatment achieves preterm lung maturation equivalent to that of the World Health Organization dexamethasone regimen but with reduced endocrine disruption in a sheep model of pregnancy
https://pubmed.ncbi.nlm.nih.gov/35792176

Hospital Pediatrics

National prevalence of social determinants of health screening among US neonatal care units
https://pubmed.ncbi.nlm.nih.gov/36317484
Improving red reflex screening in a level III NICU through a quality improvement-based approach
https://pubmed.ncbi.nlm.nih.gov/36321385
Omphalitis hospitalizations at a US children's hospital
https://pubmed.ncbi.nlm.nih.gov/36353854

BASIC SCIENCE SELECTIONS

Two useful umbilical biomarkers for therapeutic hypothermia decision in patients with hypoxic ischemic encephalopathy with perinatal asphyxia: netrin-1 and neuron specific enolase
https://www.ncbi.nlm.nih.gov/pubmed/35188847
Hematological changes in neonatal mice with phlebotomy-induced anemia
https://www.ncbi.nlm.nih.gov/pubmed/35322186
Heme induces intestinal epithelial cell ferroptosis via mitochondrial dysfunction in transfusion-associated necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/36383399
Neonatal hypoxic ischemic encephalopathy increases acute kidney injury urinary biomarkers in a rat model
https://www.ncbi.nlm.nih.gov/pubmed/36541220
Neonatal hyperoxia induces activated pulmonary cellular states and sex-dependent transcriptomic changes in a model of experimental bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/36537711
LncRNA and mRNA profiles of human milk-derived exosomes and their possible roles in protecting against necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/36448375
Hypoxia-inducible factor 1alpha stability modified by glutaredoxin-1 in necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/36049244
Inhibition of miR-21 improves pulmonary vascular responses in bronchopulmonary dysplasia by targeting the DDAH1/ADMA/NO pathway
https://www.ncbi.nlm.nih.gov/pubmed/36561848
IL-33-ST2 pathway regulates AECII transdifferentiation by targeting alveolar macrophage in a bronchopulmonary dysplasia mouse model
https://www.ncbi.nlm.nih.gov/pubmed/36573439

Other relevant articles

Association between postnatal weight gain and need for treatment in retinopathy of prematurity
https://www.ncbi.nlm.nih.gov/pubmed/34157934
A network meta-analysis of retreatment rates following bevacizumab, ranibizumab, aflibercept, and laser for retinopathy of prematurity
https://www.ncbi.nlm.nih.gov/pubmed/35842190
Value of abdominal ultrasonography in predicting intestinal resection for premature infants with necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/36526960
Combined (dual) drug therapy for the treatment of patent ductus arteriosus: last approach prior to ligation
https://www.ncbi.nlm.nih.gov/pubmed/36472120
Reducing risk factors for necrotizing enterocolitis: what is the recent evidence and biologic plausibility supporting probiotics?
https://www.ncbi.nlm.nih.gov/pubmed/35446273
Glucose-to-lactate ratio and neurodevelopment in infants with hypoxic-ischemic encephalopathy: an observational study
https://www.ncbi.nlm.nih.gov/pubmed/36484862

Gestational age-specific hematological patterns in preterm infants following necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/36062737
Clinical impact of severe acute kidney injury on post-operative and brain injury outcomes in preterm infants following surgical necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/36093832
Brain natriuretic peptide and N-terminal brain natriuretic peptide for the diagnosis of haemodynamically significant patent ductus arteriosus in preterm neonates
https://www.ncbi.nlm.nih.gov/pubmed/36478359
Necrotizing enterocolitis after intravenous immunoglobulin administration and exchange transfusion in a newborn with hemolytic disease due to anti-c
https://www.ncbi.nlm.nih.gov/pubmed/36344387
Association Between Retinopathy of Prematurity in Very-Low-Birth-Weight Infants and Neurodevelopmental Impairment
https://www.ncbi.nlm.nih.gov/pubmed/35998681
Is thrombocytopenia and postnatal weight gain associated with treatment-requiring retinopathy of prematurity? A matched case-control study
https://www.ncbi.nlm.nih.gov/pubmed/36468823
Influence of bronchopulmonary dysplasia on lung function in adolescents who were born extremely prematurely
https://www.ncbi.nlm.nih.gov/pubmed/36098237
Neonatal ECMO survivors: The late emergence of hidden morbidities - An unmet need for long-term follow-up
https://www.ncbi.nlm.nih.gov/pubmed/36456434
Cannulation and decannulation techniques for neonatal ECMO
https://www.ncbi.nlm.nih.gov/pubmed/36437185
Changing populations being treated with ECMO in the neonatal period - who are the others?
https://www.ncbi.nlm.nih.gov/pubmed/36414493
Expanding neonatal ECMO criteria: When is the premature neonate too premature
https://www.ncbi.nlm.nih.gov/pubmed/36435713
Is early extubation associated with better outcomes after neonatal congenital heart disease surgery?
https://www.ncbi.nlm.nih.gov/pubmed/36388072
Predictive factors for mortality in pre-term neonates with necrotizing enterocolitis: a retrospective cohort study
https://www.ncbi.nlm.nih.gov/pubmed/36525522