ARTICLES OF INTEREST – February 2024

Prophylactic oropharyngeal surfactant for preterm newborns at birth - a randomized clinical trial
Madeleine C Murphy, Jan Miletin, Claus Klingenberg, et al. *JAMA Pediatr.*

This randomized clinical trial found that administration of prophylactic oropharyngeal surfactant to newborns born before 29 weeks' GA did not reduce the rate of intubation in the first 120 hours of life. These findings suggest that administration of surfactant into the oropharynx immediately after birth in addition to CPAP should not be routinely used.

Morbidity and mortality of twins and triplets compared to singleton infants delivered between 26–34 weeks gestation in the United States

This retrospective analysis of inborn infants discharged from a neonatal intensive care units (NICU) managed by the Pediatrix Medical Group between 2010 and 2018 aims to describe in-hospital morbidities and mortality among twins and triplets delivered at ≥26 to ≤34 weeks gestational age (GA) while controlling for prematurity and growth restriction. Inclusion and exclusion criteria were pre-specified. Infants with gestational age (GA) ≥ 26 to ≤34 weeks were included. Infants born from higher order (>3) multiple gestation pregnancy or missing discharge status were excluded. Infants with documented diagnosis of twin-to-twin transfusion syndrome or major congenital anomalies expected to cause substantial long-term developmental impact or surgical intervention early in life were excluded. Out of 1,433,061 infants screened, 247,437 infants met inclusion criteria and were included in the analysis. After adjusting for GA, SGA status, sex, prenatal steroid exposure, and PROM, twins and triplets had lower odds of requiring respiratory support postnatal days 0 or 1, receiving surfactant, hyperbilirubinemia requiring phototherapy, seizure, EOS, death prior to discharge, and discharge with respiratory support compared to singletons. Twins, though not triplets, were less likely to experience Grade 3 or 4 IVH and LOS. Twins, though not triplets, had higher odds of PDA needing procedural intervention, inguinal hernia, and ROP treatment. There was no detected difference in adjusted odds of pneumothorax, NEC, VLOS, tracheostomy, gastrostomy tube placement, and BPD. Mortality rates for singletons, twins and triplets were 1.2%, 0.7% and 0.8%, respectively. The results from this study seem to suggest that singletons experience greater morbidity and mortality compared to twins and triplets born ≥26 weeks to ≤34 weeks GA, except PDA requiring procedural intervention, ROP requiring treatment, and longer length of stay. A major limitation of the study is that a large number of infants with twin-to-twin transfusion were excluded and the study team did not have access to chorionicity and amnionicity of the multiple gestation infants.
Transpyloric feeding is associated with adverse in-hospital outcomes in infants with severe bronchopulmonary dysplasia

This retrospective multi-center cohort study of preterm infants <32 weeks with sBPD receiving enteral feedings was conducted at centers participating in the BPD collaborative with the aim of estimating the association of transpyloric feeding (TPF) with the composite outcome of tracheostomy or death for patients with severe bronchopulmonary dysplasia (sBPD). The exposure variable of TPF was defined in the registry as receiving jejunal feeding at one or more of the three key timepoints assessed – 36 weeks, 44 weeks, or 50 weeks PMA. The primary outcome of the study was the composite outcome of death or tracheostomy. Among the 1039 included patients, 129 (12%) were exposed to TPF at one or more of the three key timepoints; 59/931 (6%) at 36 weeks PMA, 74/588 (13%) at 44 weeks PMA, and 45/337 (13%) at 50 weeks PMA. Infants exposed to TPF at any of the key timepoints were more likely to be invasively ventilated, require higher ventilator pressures at each of the key timepoints, and require higher FiO2 at 36 and 44 weeks PMA. In adjusted analyses, controlling for GA, SGA, male sex, FiO2 at 36 weeks, and invasive ventilation at 36 weeks PMA, TPF was associated with an increased adjusted odds of tracheostomy or death (aOR 3.5, 95% CI 2.0–6.1, p < 0.001). TPF was also associated with an increased odds of prolonged length of stay (discharge PMA ≥ 56.4 weeks) or death (aOR 3.1, 95% CI 1.9–5.2, p < 0.001) and placement of tracheostomy (aOR 4.0, 95% CI 2.2–7.3, p < 0.001) and gastrostomy or jejunostomy (aOR 4.9, 95% CI 2.6–8.6, p < 0.001) among survivors, but was not associated with an increased odds of death alone (aOR 1.5, 95% CI 0.5–3.5). The results from this study suggest that the use of TPF after 36 weeks PMA was associated with adverse in-hospital outcomes, including: (1) tracheostomy or death prior to discharge, (2) prolonged length of stay or death prior to discharge, and (3) tracheostomy and gastrostomy or jejunostomy among survivors. A major limitation of this study is the authors did not have the information on the indication for the use of TPF.

Advances in the care of infants with prenatal opioid exposure and neonatal opioid withdrawal syndrome

This review summarizes major advances and provides an overview of NOWS care to promote the implementation of best practices. Standardization of the clinical diagnosis of NOWS is reviewed and commonly used assessment strategies are discussed, to include the new function-based assessment Eat, Sleep, and Console approach. Nonpharmacologic and pharmacologic treatment modalities are presented, highlighting the use of higher calorie and low lactose formula, vibrating crib mattresses, morphine compared with methadone, buprenorphine compared with morphine or methadone, the use of ondansetron, and symptom-triggered dosing compared with scheduled dosing. Finally maternal, infant, environmental, and genetic factors associated with NOWS severity are highlighted as well as emerging recommendations on postdelivery hospitalization follow-up and developmental surveillance.

2023 American Heart Association and American Academy of Pediatrics focused update on neonatal resuscitation: an update to the American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care

This focused update to the neonatal resuscitation guidelines is based on 4 systematic reviews recently completed under the direction of the International Liaison Committee on Resuscitation Neonatal Life Support Task Force on umbilical cord management in preterm, late preterm, and term newborn infants, and the optimal devices and interfaces used for administering positive-pressure ventilation during resuscitation of newborn infants. These recommendations provide new guidance on the use of intact umbilical cord milking (depending on gestational age), device selection for administering positive-
pressure ventilation (T-piece preferred with self-inflating bag as backup), and an additional primary interface for administering positive-pressure ventilation (such as a supraglottic airway).

Feasibility and Safety of Sildenafil to Repair Brain Injury Secondary to Birth Asphyxia (SANE-01): A randomized, double-blind, placebo-controlled phase Ib clinical trial

In this randomized, double-blind, placebo-controlled phase Ib clinical trial in neonates with moderate or severe neonatal encephalopathy (NE), displaying brain injury on day-2 magnetic resonance imaging despite therapeutic hypothermia (TH) were randomized (2:1) to 7-day sildenafil or placebo. Outcomes included feasibility and safety (primary outcomes), pharmacokinetics (secondary), and day-30 neuroimaging and 18-month neurodevelopmental assessments (exploratory). The rate of death or survival to 18 months with severe neurodevelopmental impairment was 57% (4/7) in the sildenafil group and 100% (3/3) in the placebo group. The authors conclude that sildenafil was safe and well-absorbed in neonates with NE treated with TH, however, optimal dosing needs to be established and evaluation of a larger number of neonates through subsequent phases II and III trials is required to establish efficacy.

Prophylactic oropharyngeal surfactant for preterm newborns at birth: a randomized clinical trial
Madeleine C Murphy, Jan Miletin, Claus Klingenberg, et al. JAMA Pediatr.

In this randomized, clinical trial the authors sought to assess whether giving prophylactic oropharyngeal surfactant to preterm newborns at birth would reduce the rate of intubation for respiratory failure. Newborns born before 29 weeks of gestation were randomly assigned to receive oropharyngeal surfactant at birth in addition to CPAP or CPAP alone. The primary outcome was intubation in the delivery room for bradycardia and/or apnea or in the neonatal intensive care unit for prespecified respiratory failure criteria within 120 hours of birth. The authors found that administration of prophylactic oropharyngeal surfactant to newborns born before 29 weeks’ GA did not reduce the rate of intubation in the first 120 hours of life. These findings suggest that administration of surfactant into the oropharynx immediately after birth in addition to CPAP should not be routinely used.

Oral administration of bone marrow-derived mesenchymal stem cells attenuates intestinal injury in necrotizing enterocolitis

This study aimed to determine the optimal dose of intraperitoneally administered bone marrow-derived mesenchymal stem cells (BM-MSCs) and investigate the therapeutic potential of orally administered BM-MSCs in NEC. Neonatal mice were fed maternal breast milk for the first 2 days of life. On day 3, the neonatal mice were randomly divided into control, negative control, and BM-MSC-treated groups. High-dose (1x10⁶ cells) or low-dose (1x10⁵ cells) BM-MSCs were administered intraperitoneally 1 or 3 times between days 6 and 8 to treat the NEC. The orally administered group received a low dose of BM-MSCs on day 6. Tissue injury, apoptosis, and inflammatory marker levels were significantly reduced after BM-MSC administration. Oral administration was as effective as intraperitoneal administration, even at a low dose (1x10⁵ cells) of BM-MSCs. The oral administration of BM-MSCs is a promising treatment option for NEC in infants.
Aquaporin 4 mediates the effect of iron overload on hydrocephalus after intraventricular hemorrhage
Ying Li, Ding Nan, Ran Liu, et al. *Neurocrit Care.*

Iron overload plays an important role in hydrocephalus development following intraventricular hemorrhage (IVH). Aquaporin 4 (AQP4) participates in the balance of cerebrospinal fluid secretion and absorption. This study investigated the role of AQP4 in the formation of hydrocephalus caused by iron overload after IVH. There were three parts to this study. Sprague-Dawley rats received an intraventricular injection of 100 microl autologous blood or saline control. Second, rats had IVH and were treated with deferoxamine (DFX), an iron chelator, or vehicle. Third, rats had IVH and were treated with 2-(nicotinamide)-1,3,4-thiadiazole (TGN-020), a specific AQP4 inhibitor, or vehicle. Rats underwent imaging to assess lateral ventricular volume and intraventricular iron deposition at 7, 14, and 28 days after intraventricular injection. Intraventricular injection of autologous blood caused a significant ventricular dilatation, iron deposition, and ventricular wall damage. AQP4 located in the periventricular area mediated the effect of iron overload on hydrocephalus after IVH.

Neurodevelopmental outcomes of extremely preterm infants fed donor milk or preterm infant formula a randomized clinical trial
Tarah T. Colaizy, Brenda B. Poindexter, Scott A. McDonald, et al. *JAMA.*

This is a double blinded, RCT assessing neurodevelopmental outcomes among extremely preterm infants comparing donor human milk with preterm formula for those infants who received minimal maternal breastmilk. 483 infants were randomized. The study assessed neurodevelopment at 22 to 26 months’ corrected age. The adjusted mean BSID cognitive score was 80.7 (SD, 17.4) for the donor milk group vs 81.1 (SD, 16.7) for the preterm formula group; mean BSID language and motor scores also did not differ. However, there was higher incidence of NEC in the preterm formula group, slower weight gain in the donor milk group, and no difference for mortality. Neurodevelopmental outcomes at 22 to 26 months’ corrected age did not differ between infants fed donor milk or preterm formula.

OTHER NOTEWORTHY PUBLICATIONS – February 2024

**COVID-19**
Neonatal outcomes after COVID-19 vaccination in pregnancy

**Pediatrics**
Corrected age at Bayley assessment and developmental delay in extreme preterms
Marijuana use and breastfeeding: a survey of newborn nurseries
Transfer patterns among infants born at 28 to 34 weeks’ gestation
The prematurity paradox: reevaluating the kindergarten readiness of former preterm infants
Formula for a crisis: systemic inequities highlighted by the US infant formula shortage
Advances in the care of infants with prenatal opioid exposure and neonatal opioid withdrawal syndrome
2023 American Heart Association and American Academy of Pediatrics focused update on neonatal resuscitation: an update to the American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care
Neonatal opioid withdrawal syndrome following prenatal use of supplements containing tianeptine
Child health needs and the neonatal–perinatal medicine workforce: 2020–2040

Journal of Pediatrics
Improving neonatal patient outcomes using simulation-based education
Diuretic tolerance to repeated-dose furosemide in infants born very preterm with bronchopulmonary dysplasia
Neonatal hypoxic-ischemic encephalopathy spectrum: severity-stratified analysis of neuroimaging modalities and association with neurodevelopmental outcomes
Shape of pulmonary artery doppler flow profile and right ventricular hemodynamics in neonates
Time to reaching target cooling temperature and 2-year outcomes in infants with hypoxic-ischemic encephalopathy
Perioperative brain injury in relation to early neurodevelopment among children with severe congenital heart disease: results from a European collaboration
Normative magnetic resonance imaging data increase the sensitivity to brain volume abnormalities in the classification of fetal alcohol spectrum disorder
Clinical decision support for improved neonatal care: the development of a machine learning model for the prediction of late-onset sepsis and necrotizing enterocolitis
Unbound bilirubin and acute bilirubin encephalopathy in infants born late preterm and term with significant hyperbilirubinemia
A dyadic framework of care for opioid-exposed birthing persons and their infants and children
Variations in site-specific costs for infants born extremely preterm in Canadian neonatal intensive care units
Secular trends in patent ductus arteriosus management in infants born preterm in the national institute of child health and human development neonatal research network
Annular erythema of infancy

Pediatric Research
Neurodevelopmental outcomes in preterm or low birth weight infants with germinal matrix-intraventricular hemorrhage: a meta-analysis
Aberrant colon metabolome and the sudden infant death syndrome
Effects of pasteurization on osteopontin concentrations in human breastmilk
Metabolic and fecal microbial changes in adult fetal growth restricted mice
Sustained inflation improves initial lung aeration in newborn rabbits with a diaphragmatic hernia
Predicting mental and psychomotor delay in very pre-term infants using machine learning

Music for pain relief of minor procedures in term neonates

Developmental trajectories of late preterm infants and predictors of academic performance

Blood pressure normative values in preterm infants during postnatal transition

Neonatal mortality and video assessment of resuscitation in four district hospitals in Pemba, Tanzania

Factors that determine first intubation attempt success in high-risk neonates

Functional characterization of two novel NKX2-1 frameshift variants that cause pulmonary surfactant dysfunction

Seizures after initiation of rewarming in cooled infants with hypoxic ischaemic encephalopathy

Antisecretory factor in breastmilk is associated with reduced incidence of sepsis in preterm infants

sTREM2 in the prognostic evaluation of acute lung injury after cardiac surgery in infants

Cohort selection and the estimation of racial disparity in mortality of extremely preterm neonates

Breastfeeding and neurodevelopment in infants with prenatal alcohol exposure

Markers of platelet activation for identification of late onset sepsis in infants: PARENT study protocol

Haemodynamic assessment and management of hypotension in the preterm [Review]


Advance care planning in perinatal settings: national survey of implementation using Normalisation Process Theory

Two-year neurodevelopmental data for preterm infants born over an 11-year period in England and Wales, 2008–2018: a retrospective study using the National Neonatal Research Database

Neuroimaging in infants with congenital cytomegalovirus infection and its correlation with outcome: emphasis on white matter abnormalities

Identifying effect modifiers of systemic hydrocortisone treatment initiated 7–14 days after birth in ventilated very preterm infants on long-term outcome: secondary analysis of a randomised controlled trial

First-year growth trajectory and early nutritional requirements for optimal growth in infants with congenital diaphragmatic hernia: a retrospective cohort study

Preliminary results on validity and reliability from two prospective cohort studies on a new Neonatal Coma Score
Congenital duodenal obstruction repair with and without transanastomotic tube feeding: a systematic review and meta-analysis

Neurodevelopmental outcomes at age 3 years after moderate preterm, late preterm and early term birth: the Japan Environment and Children’s Study

2% chlorhexidine gluconate aqueous versus 2% chlorhexidine gluconate in 70% isopropyl alcohol for skin disinfection prior to percutaneous central venous catheterisation: the ARCTIC randomised controlled feasibility trial

Neurodevelopmental outcomes of preterm neonates receiving rescue inhaled nitric oxide in the first week of age: a cohort study

Volume-targeted mask ventilation during simulated neonatal resuscitation

Prolonged use of closed-loop inspired oxygen support in preterm infants: a randomised controlled trial

Journal of Perinatology
Delirium in the NICU [Review]

Efficacy and safety of dexmedetomidine for analgesia and sedation in neonates: a systematic review

The effect of demographic, financial and hospital factors on the length of stay of preterm infants: a US national database study

The association of maternal country/region of origin and nativity with infant mortality rate among Hispanic preterm infants

The effect of fertility treatment and socioeconomic status on neonatal and post-neonatal mortality in the United States

Impact of corticosteroid exposure on preterm labor in neonates eventually born at term

Declining birth rates, increasing maternal age and neonatal intensive care unit admissions

Resuscitation, survival and morbidity of extremely preterm infants in California 2011–2019

Increasing trends in a low 5-min Apgar score among (near) term singletons: a Dutch nationwide cohort study

Quality, outcome, and cost of care provided to very low birth weight infants in California

Morbidity and mortality of twins and triplets compared to singleton infants delivered between 26–34 weeks gestation in the United States

Comparison of laryngeal mask airway and endotracheal tube placement in neonates

Tidal volume delivery during nasal intermittent positive pressure ventilation: infant cannula vs. nasal continuous positive airway pressure prongs
Predictors of successful extubation from volume-targeted ventilation in extremely preterm neonates

Peri-extubation settings in preterm neonates: a systematic review and meta-analysis

Evaluation of lung volumes and gas exchange in surfactant-deficient rabbits between variable and fixed servo pressures during high-frequency jet ventilation

Lung ultrasound score as a tool to predict severity of bronchopulmonary dysplasia in neonates born ≤25 weeks of gestational age

Multi-dose enteral L-citrulline administration in premature infants at risk of developing pulmonary hypertension associated with bronchopulmonary dysplasia

The effect of bethanechol on tracheobronchomalacia in preterm infants with bronchopulmonary dysplasia: a retrospective cohort study

Association of the respiratory severity score with bronchopulmonary dysplasia-associated pulmonary hypertension in infants born extremely preterm

Does faster weight trajectory lead to improved neurodevelopmental outcomes in ELBW infants with bronchopulmonary dysplasia?

Transpyloric feeding is associated with adverse in-hospital outcomes in infants with severe bronchopulmonary dysplasia

Use of an airway bundle to reduce unplanned extubations in a neonatal intensive care unit

Diagnostic accuracy of urinary n terminal pro-b type natriuretic peptides for hemodynamically significant patent ductus arteriosus in preterm infants

Early versus late caffeine therapy administration in preterm neonates: an updated systematic review and meta-analysis

External validation of a multivariate model for targeted surfactant replacement

Neuro-specific and immuno-inflammatory biomarkers in umbilical cord blood in neonatal hypoxic-ischemic encephalopathy

Hospital variation in mortality and failure to rescue after surgery for high-risk neonatal diagnoses

Parental experiences of neonatal care: a nationwide study on determinants of excellence

Enhanced category-based risk assessment for neonatal early-onset sepsis: a prospective observational study

Long-term neurodevelopmental impairment among very preterm infants with sepsis, meningitis, and intraventricular hemorrhage
Outcomes at 18–24 months of infants with birth weight under 500 g born in Korea during 2013–2017: a nationwide cohort study

Clinical features, diagnosis, and treatment of congenital and neonatal tuberculosis: a retrospective study

Associations of high-sensitive cardiac troponin t in healthy newborns and prolonged second stage of labor, neonatal and maternal factors: a prospective study

Magnetic resonance imaging-based reference values for two-dimensional quantitative brain metrics in a cohort of extremely preterm infants

Aortic steal correlates with acute organ dysfunction and short-term outcomes in neonates with vein of galen malformation

Neonatal respiratory support utilization in low- and middle-income countries: a registry-based observational study

Risk factors for neurodevelopmental impairment at 2- and 5-years corrected age in preterm infants with established bronchopulmonary dysplasia

Acinar dysplasia in a full-term newborn with a nkx2.1 variant

**American Journal of Perinatology**

Diagnostic role of systemic inflammatory indices in infants with moderate-to-severe hypoxic ischemic encephalopathy

High-frequency positive pressure ventilation as primary rescue strategy for patients with congenital diaphragmatic hernia: a comparison to high-frequency oscillatory ventilation

Comparison of perinatal outcomes between patients with suspected complex and simple gastroschisis

Complement activation fragments in cervicovaginal fluid are associated with intra-amniotic infection/inflammation and spontaneous preterm birth in women with preterm premature rupture of membranes

Neonatal therapy staffing in the united states and relationships to neonatal intensive care unit type and location, level of acuity, and population factors

Improving consistency and accuracy of neonatal amplitude-integrated electroencephalography

Early diagnosis of prediabetes among pregnant women that develop gestational diabetes mellitus and its influence on perinatal outcomes

Enhancing interpretation of one-time body composition measurement at near-term gestation in preterm infants: an exploratory study

**Journal of Neonatal-Perinatal Medicine**

No new content

**Maternal Health, Neonatology and Perinatology**
Dietary supplement use among lactating mothers following different dietary patterns – an online survey
Association between social relationship of mentors and depressive symptoms in first-time mothers during the transition from pregnancy to 6-months postpartum
Evaluating mean platelet volume and platelet distribution width as predictors of early-onset pre-eclampsia: a prospective cohort study
Examination of risk factors for high Edinburgh postnatal depression scale scores: a retrospective study at a single university hospital in Japan

Neoreviews
Potential neurologic manifestations of COVID-19 infection in neonates
Congenital anomalies of the kidneys and urinary tract
Nephrocalcinosis in neonates
Renal tubular acidosis in the neonate
Lactic acidosis in a neonate with ventriculomegaly and hypoplasia of the corpus callosum
A preterm infant with pneumoperitoneum
One bone in two pieces: does it have to be a fracture?
Elevation of maternal serum α-fetoprotein: implications for the neonate
A 3-day-old neonate with generalized edema and a bullous rash

JAMA Pediatrics
Lack of effect for oropharyngeal surfactant for preterm neonates—method or timing?
Two-year autism risk screening and 3-year developmental outcomes in very preterm infants
Maternal vaccine effectiveness against influenza-associated hospitalizations and emergency department visits in infants

BMC Pediatrics
Risk factors of multidrug-resistant organisms neonatal sepsis in Surabaya tertiary referral hospital: a single-center study
The impact of blood lactic acid levels on retinopathy of prematurity morbidity
Factors influencing necrotizing enterocolitis in premature infants in China: a systematic review and meta-analysis
Risk factor analysis and nomogram prediction model construction for NEC complicated by intestinal perforation
Magnitude of neonatal asphyxia and its predictors among newborns at public hospitals of Wolaita Zone in Southern Ethiopia, 2023
Rare complication – skin atrophy – after systemic conservative therapy of infantile hemangioma
https://pubmed.ncbi.nlm.nih.gov/38395819/
The association between sex and neonatal respiratory distress syndrome

Pediatric Critical Care Medicine
No relevant articles

New England Journal of Medicine
No new articles

Lancet
No new articles

JAMA
Neurodevelopmental outcomes of extremely preterm infants fed donor milk or preterm infant formula a randomized clinical trial
https://jamanetwork.com/journals/jama/fullarticle/2814657

JAMA Pediatrics
Prophylactic oropharyngeal surfactant for preterm newborns at birth - a randomized clinical trial

BMJ
No new articles

Pediatric Infectious Disease Journal
Experience with a vancomycin-sparing empiric antibiotic guideline for late-onset sepsis in a level-4 neonatal intensive care unit

Pediatric Cardiology
Postoperative morbidity and interstage hemodynamics following stage i palliation in patients with turner syndrome and hypoplastic left heart syndrome
The neonatal QRS complex and its association with left ventricular mass
Neonatal outcomes of critical congenital heart defects: a multicenter epidemiological study of Turkish neonatal society
The association of gestational age and size with management strategies and outcomes in symptomatic neonatal tetralogy of fallot
Applying the hybrid concept as a bridge to transplantation in infants without hypoplastic left heart syndrome
Intracardiac three-dimensional image as surgical decision-making tool of congenital heart disease
Persistant left superior vena cava with and without right superior vena cava: significance of prenatal diagnosis
**Pediatric Neurology**
Disruption of cerebellar granular layer as a consequence of germinal matrix intraventricular hemorrhage in extreme prematurity: an acute direct mechanism too?
Resting-state functional magnetic resonance imaging network association with mortality, epilepsy, cognition, and motor two-year outcomes in suspected severe neonatal acute brain injury
Impact of a national follow-up program on the age at diagnosis for cerebral palsy
Frequency of cerebellar abnormalities associated with the differing magnetic resonance imaging patterns of term hypoxic-ischemic injury in children
Ferritin as an effective predictor of neurological outcomes in children with acute necrotizing encephalopathy
Evaluating the safety and efficacy of erythropoietin therapy for neonatal hypoxic-ischemic encephalopathy: a systematic review and meta-analysis

**Obstetrics and Gynecology**
No new articles

**American Journal of Obstetrics & Gynecology**
No relevant articles

**Hospital Pediatrics**
Care models and discharge services for children with medical complexity

**BASIC SCIENCE SELECTIONS**
Implication of m6A methylation regulators in the immune microenvironment of bronchopulmonary dysplasia
Circulating microvesicles miR139-3p from bronchopulmonary dysplasia aggravates pulmonary vascular simplification by targeting 4E binding protein 1
Lysine demethylase KDM3A alleviates hyperoxia-induced bronchopulmonary dysplasia in mice by promoting ETS1 expression
Cellular senescence contributes to the progression of hyperoxic bronchopulmonary dysplasia
Oral administration of bone marrow-derived mesenchymal stem cells attenuates
intestinal injury in necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/38369803
Melatonin alleviates necrotizing enterocolitis by reducing bile acid levels through the SIRT1/FXR signalling axis
NLRP3 activation in macrophages promotes acute intestinal injury in neonatal necrotizing enterocolitis
Hyperpolarized (13) C magnetic resonance imaging in neonatal hypoxic-ischemic encephalopathy: First investigations in a large animal model
IL1R2 promotes retinal angiogenesis to participate in retinopathy of prematurity by activating the HIF1alpha/PFNFB3 pathway
Aquaporin 4 mediates the effect of iron overload on hydrocephalus after intraventricular hemorrhage

ADDITIONAL JOURNAL SELECTIONS
Correlation between early postnatal body weight changes and lung ultrasound scores as predictors of bronchopulmonary dysplasia in preterm infants: A secondary analysis of a prospective study
Family integrated care shortens the duration of home oxygen therapy in infants with bronchopulmonary dysplasia
Respiratory culture growth and 3-years lung health outcomes in children with bronchopulmonary dysplasia and tracheostomies
Acute kidney injury in neonates with hypoxic ischemic encephalopathy based on serum creatinine decline compared to KDIGO criteria
The Association of therapeutic hypothermia with seizure burden in neonates with hypoxic-ischemic encephalopathy
Use of hand-held optical coherence tomography during retinopathy of prematurity screening demonstrates an increased outer retina from early postmenstrual age in preterm infants with retinopathy of prematurity
Creation of a rating scale to teach Less Invasive Surfactant Administration (LISA) in simulation
Valganciclovir in infants with hearing loss and clinically inapparent congenital cytomegalovirus infection: a nonrandomized controlled trial
The effect of valacyclovir on secondary prevention of congenital cytomegalovirus infection, following primary maternal infection acquired periconceptionally or in the first trimester of pregnancy. An individual patient data meta-analysis