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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – October 2024

Survival of infants born at 22 to 25 weeks' gestation receiving care in the Nicu: 2020–2022

Erika M Edwards, Danielle E Y Ehret, Roger F Soll , et al. *Pediatrics*

Management decisions surrounding the periviable period can be challenging for parents and medical providers. This is a contemporary data report of survival to hospital discharge, survival without severe complications, length of stay, and technology dependence of infants born at level 3 and 4 NICUs between 22 to 25 weeks' gestation from the Vermont Oxford Network database. Survival ranged from 36.1% to 82% from 22 weeks to 25 weeks respectively. Survival without complications ranged from 6.2% to 40.9% from 22 to 25 weeks, respectively. Among survivors, the need for life support such as tracheostomy, gastrostomy tube, oxygen, and monitors decrease from 22 weeks to 25 weeks. Utilizing national data and/or center specific data may help providers and parents make decisions about the management of preterm born at 22 to 25 weeks' gestation.

Reducing iatrogenic blood losses in premature infants

Megha Sharma, Emily Bowman, Feng Zheng, et al. *Pediatrics*

A single center prospective study that used a 3-stage implementation strategy to reduce in laboratory tests and iatrogenic blood losses in VLBW infants during the first 3 postnatal weeks. The number of laboratory tests, amount of blood taken (ml/kg), and laboratory charges were compared before and after implementation. There was an 18.5% reduction in laboratory tests (median 54 [36 − 80] versus 44 [29 − 74], P = .01) in the first 3 postnatal weeks, a 17% decrease in blood taken (mean 18.1 [16.4 − 20.1] versus 15 [13.4 − 16.8], P = .01), and an overall reduction of $290 328 in laboratory charges. This study showed that a multimodal strategy can be used to reduce excessive

and unnecessary testing while providing meaningful improvements in the quality of patient care.

Hypertensive disorders of pregnancy and risk of early brain abnormalities on magnetic resonance imaging at term among infants born at ≤32 weeks' gestational age
Shipra Jain, Maria E Barnes-Davis, Ting Ting Fu, et al. *J Pediatr*

This multi-center prospective cohort study evaluates the effect of hypertensive disorders of pregnancy (HDP) on MRI brain anomalies in preterm infants ≤32 weeks' GA. 395 infants were included who underwent a MRI scan between 39 and 44 weeks' postmenstrual age. A total of 170/395 infants (43%) were born to mothers with HDP. Adjusted multivariable analyses revealed HDP-exposed infants had 27% (95% CI 5%-53%) higher brain abnormality scores than those without HDP exposure (P = .02), primarily driven by increased white matter injury/abnormality scores (P = .01). Some (22%) of this effect was attributed to intrauterine growth restriction. The study suggests that maternal hypertension independently increased the risk for early brain injury and/or maturational delays in infants born at ≤32 weeks' GA.

Multicenter evaluation of pre-operative feeding in infants with ductal dependent circulation
Jamie Penk, Will Cagle, Adrian Holloway, et al. *Pediatr Cardiol*

This multicenter retrospective study describes a cohort of full-term neonates under one month of age with ductal dependent lesions receiving prostaglandins who were fed for at least 24 h during the pre-operative period. 127 neonates were included, 20.5% of the neonates were intubated, 10.2% were on inotropes, and 55.9% had an umbilical arterial catheter in place. Median oxygen saturations, median diastolic blood pressure and median somatic NIRS were collected and reported. The median peak daily feeding volume reached was 29 ml/kg/day (IQ range 15.5–96.8 ml/kg/day). Only one patient developed suspected necrotizing enterocolitis (NEC) in this cohort and one adverse event occurred, which was an aspiration thought to be related to feeding, but did not result in intubation or cessation of feeding. This study suggests that NEC was rare among neonates with ductal dependent lesions while receiving enteral nutrition pre-operatively.

Microbiota regulates neonatal disease tolerance to virus-evoked necrotizing enterocolitis by shaping the STAT1-NLRC5 axis in the intestinal epithelium
Saravanan Subramanian 1, Hua Geng 1, Longtao Wu, et al. *Cell Host Microbe*

The authors show that microbiota colonization facilitated by breastmilk feeding promotes NOD-like receptor family CARD domain containing 5 (Nlrc5) gene expression in mouse intestinal epithelial cells (IECs). Notably, inducible knockout of the Nlrc5 gene in IECs predisposes neonatal mice to NEC-like injury in the small intestine upon viral inflammation in an NK1.1(+) cell-dependent manner. By contrast, formula feeding

enhances neonatal gut colonization with environment-derived tilivalline-producing Klebsiella spp. Tilivalline disrupts microbiota-activated STAT1 signaling that controls Nlrc5 gene expression in IECs through a PPAR-gamma-mediated mechanism. Consequently, this dysregulation hinders the resistance of neonatal intestinal epithelium to self-NK1.1(+) cell cytotoxicity upon virus infection/colonization, promoting NEC development. The authors describe the underappreciated role of intestinal microbiota colonization in shaping a disease tolerance program to viral inflammation and elucidate the mechanisms impacting NEC development in neonates.

p75ECD-Fc reverses neonatal hypoxic-ischemic encephalopathy-induced neurological deficits and inhibits apoptosis associated with Nestin
Qiu-Xia Xiao, Lu-Lu Xue, Ya-Xin Tan, et al. *Biomed Pharmacother*

A recent study has introduced a recombinant fusion protein, consisting of the extracellular domain (ECD) of p75 and the Fc fragment of human immunoglobulin IgG1 (p75ECD-Fc), as a multifaceted agent within the nervous system. This research aimed to assess the effects of p75ECD-Fc on neuronal growth and the restoration of neurological functions in rats afflicted with neonatal hypoxic-ischemic encephalopathy (NHIE). In vitro analyses revealed that 1 muM p75ECD-Fc treatment markedly increased cell viability and facilitated neurite outgrowth in neurons exposed to oxygen-glucose deprivation (OGD). Additionally, in vivo immunostaining showed that p75ECD-Fc administration enhanced neuronal survival and regeneration, and reduced astrocytosis and microglia activation in the cortex and hippocampus of NHIE rats. A noteworthy shift from A1 to A2 astrocyte phenotypes and from M1 to M2 microglia phenotypes was observed after p75ECD-Fc treatment. Furthermore, a co-expression of the p75 neurotrophin receptor (p75NTR) and Nestin was identified, with an overexpression of Nestin alleviating the neurological dysfunction induced by NHIE. Mechanistically, the neuroprotective effects of p75ECD-Fc, particularly its inhibition of neuronal apoptosis post-OGD, may be attributed to Nestin. Taken together, these results highlight the neuroprotective and anti-inflammatory effects of p75ECD-Fc treatment through the modulation of glial cell phenotypes and the Nestin-mediated inhibition of neuronal apoptosis, positioning it as a viable therapeutic approach for NHIE.

Maternal vaccination against COVID-19 and neonatal outcomes during Omicron: INTERCOVID-2022 study
Fernando C Barros, Robert B Gunier, Albertina Rego, et al. *Am J Obstet Gynecol*

The INTERCOVID-2022 was a large, prospective, observational study enrolled 4707 neonates born to 1577 (33.5%) mothers diagnosed with COVID-19 and 3130 (66.5%) nondiagnosed mothers. Among the diagnosed mothers, 642 (40.7%) were not vaccinated, 147 (9.3%) were partially vaccinated, 551 (34.9%) were completely vaccinated, and 237 (15.0%) also had a booster vaccine. Neonates of booster-vaccinated mothers had less than half (relative risk, 0.46; 95% confidence interval, 0.23-0.91) the risk of being diagnosed with COVID-19 when compared with those of

unvaccinated mothers; they also had the lowest rates of preterm birth, medically indicated preterm birth, respiratory distress syndrome, and number of days in the neonatal intensive care unit. Newborns of unvaccinated mothers had double the risk for neonatal death (relative risk, 2.06; 95% confidence interval, 1.06-4.00) when compared with those of nondiagnosed mothers. Vaccines were fairly effective in protecting neonates when given to pregnant women ≤100 days (14 weeks) before birth; thereafter, the risk increased and was much higher after 200 days (29 weeks).

Association between SMOFlipid and impaired brain development on term-equivalent age brain magnetic resonance imaging in very preterm infants
Mountasser M Al-Mouqdad, Belal Alshaikh, Haider H Sumaily, et al. *BMC Pediatr*

This study investigated the relationship between lipid emulsions and brain injury in term-equivalent age magnetic resonance imaging (MRI) in 148 very preterm infants with a birth weight of < 1500 g at ≤ 32 gestational weeks. Infants who received soybean-based lipid emulsions between January 2015 and December 2018 were compared with those who received SMOFlipids between January 2019 and December 2022. Eighty-six (58.9%) received SMOFlipid. SMOFlipid was associated with lower focal signal abnormality, myelination delay, increased extracerebral space, and cerebellar volume reduction (P=0.02,P=0.007, P=0.01, P=0.02, respectively). The authors concluded that SMOFlipidis are associated with brain insult, especially in white matter,cortical gray matter, and the cerebellum.

Postdiscontinuation antibiotic exposure in hospitalized infants at risk for late-onset sepsis in the neonatal intensive care unit
Kelly C Wade, Rachel G Greenberg, Daniel K Benjamin Jr, et al. *Pediatr Infect Dis J*

In the neonatal intensive care unit, infants are at risk for late-onset sepsis. When blood cultures are negative, antibiotic stewardship efforts encourage stopping antibiotics, yet the duration of therapeutic exposure after the last dose is unknown. In this retrospective cohort study of simulated antibiotic exposures, the authors used published population pharmacokinetic models within drug-specific neonatal intensive care unit cohorts of preterm and term infants, postnatal age 7-60 days and exposed to cefepime, piperacillin-tazobactam or tobramycin. The authors found that piperacillin and cefepime exposures remained therapeutic long after the expected 8- to 12-hour dosing interval. Postdiscontinuation antibiotic exposure is an important consideration for antibiotic stewardship among hospitalized infants, particularly premature infants and those within 1 month postbirth.

Standard compared with extended red blood cell antigen matching for prevention of subsequent hemolytic disease of the fetus and newborn: a systematic review
Ronan P Sugrue, Jaxon Olsen, Marie Elise Abi Antoun, et al. *Obstet Gynecol*

The authors sought to systematically review and meta-analyze alloimmunization among recipients of red blood cells (RBCs) matched for ABO blood type and Rhesus D (ABO+D) antigen compared with those also matched for c, E, and Kell (cEK). Studies reporting alloimmunization as the primary outcome among recipients of RBCs matched for ABO+D or additional cEK matching were included. Patients transfused with unmatched RBCs or a mixture of matching regimens were excluded. The authors conclude that additional cEK RBC matching protocols were associated with lower odds of recipient alloimmunization. Given severe sequelae of alloimmunization in pregnancy, routine cEK matching for transfusion in people with pregnancy potential younger than age 50 years in the United States merits consideration.

OTHER NOTEWORTHY PUBLICATIONS – September 2024

Pediatrics

Survival of infants born at 22 to 25 weeks' gestation receiving care in the NICU: 2020–2022 https://pubmed.ncbi.nlm.nih.gov/39323403/

Update to the neonatal early-onset sepsis calculator utilizing a contemporary cohort https://pubmed.ncbi.nlm.nih.gov/39314183/

Hospital diversity, equity, and inclusion efforts: perspectives of patient and family advisors https://pubmed.ncbi.nlm.nih.gov/39228356/

Reducing iatrogenic blood losses in premature infants https://pubmed.ncbi.nlm.nih.gov/39290188/

Journal of Pediatrics

Nine is the new ten of apgar scores: an observational retrospective cohort study https://www.ncbi.nlm.nih.gov/pubmed/38880381

Defining the typical course of persistent pulmonary hypertension of the newborn: when to think beyond reversible causes https://www.ncbi.nlm.nih.gov/pubmed/38823627

Hypertensive disorders of pregnancy and risk of early brain abnormalities on magnetic resonance imaging at term among infants born at ≤32 weeks' gestational age https://www.ncbi.nlm.nih.gov/pubmed/38838850

Improvement in echocardiographic and diagnostic biomarkers after systemic glucocorticoid therapy in infants with pulmonary hypertension https://www.ncbi.nlm.nih.gov/pubmed/38815741

Clinical risk factors for retinopathy of prematurity reactivation after intravitreal antivascular endothelial growth factor injection https://www.ncbi.nlm.nih.gov/pubmed/38218371

Reference ranges for arterial oxygen saturation, heart rate, and cerebral oxygen saturation during immediate postnatal transition in neonates born extremely or very preterm https://www.ncbi.nlm.nih.gov/pubmed/38823628

Long-term outcomes, including fetal and neonatal prognosis, of renal oligohydramnios: a retrospective study over 22 years

https://www.ncbi.nlm.nih.gov/pubmed/38880380
Oral clonidine-based strategy to reduce opiate use during cooling for neonatal encephalopathy: an observational study
https://www.ncbi.nlm.nih.gov/pubmed/38889855
Trends in C-Reactive Protein use in early-onset sepsis evaluations and associated antibiotic use
https://www.ncbi.nlm.nih.gov/pubmed/38901777

Pediatric Research
Risk of childhood neoplasms related to neonatal phototherapy- a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/38615073/
Effects of postnatal corticosteroids on lung development in newborn animals. A systematic review
https://pubmed.ncbi.nlm.nih.gov/38493255/
Regional variability in therapeutic hypothermia eligibility criteria for neonatal hypoxic-ischemic encephalopathy
https://pubmed.ncbi.nlm.nih.gov/38649726/
The vascular phenotype of BPD: new basic science insights—new precision medicine approaches
https://pubmed.ncbi.nlm.nih.gov/36550351/
Milrinone in persistent pulmonary hypertension of newborn: a scoping review
https://pubmed.ncbi.nlm.nih.gov/38745027/ Radu Galis
Neonatal somatic oxygenation and perfusion assessment using near-infrared spectroscopy
https://pubmed.ncbi.nlm.nih.gov/38730022/
Meeting the need for effective and standardized neonatology training: a pan-European Master's Curriculum
https://pubmed.ncbi.nlm.nih.gov/38702380/
Sex differences in metabolic adaptation in infants with cyanotic congenital heart disease
https://pubmed.ncbi.nlm.nih.gov/38839995/
Cardiopulmonary resuscitation with 3:1 Compression:Ventilation or continuous compression with asynchronized ventilation in infantile piglets
https://pubmed.ncbi.nlm.nih.gov/39048668/
Impact of severity and age with variable definitions of bronchopulmonary dysplasia on neurodevelopmental outcomes
https://pubmed.ncbi.nlm.nih.gov/38830970/
Neonatal outcomes of preterm infants with pulmonary hypertension: clustering based on prenatal risk factors
https://pubmed.ncbi.nlm.nih.gov/38734814/
Nutritional intake and growth until two years of age in moderate and late preterms
https://pubmed.ncbi.nlm.nih.gov/38769401/
Cardiovascular and cerebrovascular effects of caffeine maintenance in preterm infants during the transitional period

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The serum thioredoxin-1 levels are not associated with bronchopulmonary dysplasia and retinopathy of prematurity
https://pubmed.ncbi.nlm.nih.gov/38365875/
Differences in autophagy marker levels at birth in preterm vs. term infants
https://pubmed.ncbi.nlm.nih.gov/38811718/
Genetic susceptibility for retinopathy of prematurity and its associated comorbidities
https://pubmed.ncbi.nlm.nih.gov/38347174/

Archives of Disease in Childhood - Fetal & Neonatal Edition
No October content

Journal of Perinatology
Implementing evidence-based restrictive neonatal intensive care unit platelet transfusion guidelines
https://pubmed.ncbi.nlm.nih.gov/39009717/
Procedural closure of the patent ductus arteriosus in preterm infants: a clinical practice guideline
https://pubmed.ncbi.nlm.nih.gov/38997403/
The impact of volume and neonatal level of care on outcomes of moderate and late preterm infants
https://pubmed.ncbi.nlm.nih.gov/38413758/
Who's in the NICU? A population-level analysis
https://pubmed.ncbi.nlm.nih.gov/38944662/
Adverse fetal/neonatal and obstetric outcomes in pregnancies with both maternal and fetal heart disease
https://pubmed.ncbi.nlm.nih.gov/39043994/
Detection of congenital heart disease by neonatologist performed cardiac ultrasound in preterm infants
https://pubmed.ncbi.nlm.nih.gov/39043996/
Presurgical pulmonary function tests in the first few days of life in neonates with congenital heart disease, a pilot study
https://pubmed.ncbi.nlm.nih.gov/38750194/
Risk factors, incidence, and outcomes of neonatal respiratory extracorporeal membrane oxygenation including association with therapeutic hypothermia in California during 2013–2020
https://pubmed.ncbi.nlm.nih.gov/39098921/
Vasopressin as adjunctive therapy in pulmonary hypertension associated with refractory systemic hypotension in term newborns
https://pubmed.ncbi.nlm.nih.gov/38965377/
Morbidity and neurodevelopmental outcomes at 2 years in preterm infants undergoing percutaneous transcatheter closure vs. surgical ligation of the PDA
https://pubmed.ncbi.nlm.nih.gov/38831120/

A comparison of different dosing regimen of intravenous paracetamol for hemodynamically significant patent ductus arteriosus closure in premature neonates <32 weeks: a prospective observational study
https://pubmed.ncbi.nlm.nih.gov/38622217/
Prophylactic indomethacin and the risk of serious pulmonary hemorrhages in preterm infants less than 28 weeks' gestation
https://pubmed.ncbi.nlm.nih.gov/38658692/
Incidence of gastrointestinal bleeding with hydrocortisone use in neonates and infants less than three months of age in the neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/39097667/
Blood product transfusion practices in neonates with hypoxic-ischemic encephalopathy
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Vitamin K prophylaxis in neonates: comparing two different oral regimens
https://pubmed.ncbi.nlm.nih.gov/38678081/
Association between early echocardiography screening of low systemic blood flow and intraventricular hemorrhage in preterm infants: a multicenter cohort study
https://pubmed.ncbi.nlm.nih.gov/38664495/
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https://pubmed.ncbi.nlm.nih.gov/38811756/
Neonatal cardiac POCUS—a survey of academic neonatal centers in the United States
https://pubmed.ncbi.nlm.nih.gov/39251747/
Oral sodium supplementation on growth and hypertension in preterm infants: an observational cohort study
https://pubmed.ncbi.nlm.nih.gov/39103473/
Prevalence of iron deficiency in extreme preterm infants at 4 or 6 months corrected age despite receiving prophylactic iron supplements
https://pubmed.ncbi.nlm.nih.gov/39210023/
Implementation of an ultrasound-guided approach for arterial line placements in neonates—quality improvement project
https://pubmed.ncbi.nlm.nih.gov/38145989/
At a crossroads for early medical treatment of persistent patent ductus arteriosus in preterm infants
https://pubmed.ncbi.nlm.nih.gov/38918573/
Does platelet transfusion threshold in premature infants impact neurodevelopmental outcomes?
https://pubmed.ncbi.nlm.nih.gov/39009716/

Neonatology
Physiological-based cord clamping: when the baby is ready for clamping
https://pubmed.ncbi.nlm.nih.gov/39197438/
Delivery room handling of the newborn: filling the gaps
https://pubmed.ncbi.nlm.nih.gov/39308394/
Aspects on oxygenation in preterm infants before, immediately after birth, and beyond

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Optimal strategies of mechanical ventilation: can we avoid or reduce lung injury?
https://pubmed.ncbi.nlm.nih.gov/38870922/
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https://pubmed.ncbi.nlm.nih.gov/39053447/
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Brain MRI injury patterns across gestational age among preterm infants with perinatal asphyxia
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https://pubmed.ncbi.nlm.nih.gov/38934167/
Prevention of inflammatory disorders in the preterm neonate: an update with a special focus on bronchopulmonary dysplasia
https://pubmed.ncbi.nlm.nih.gov/38870912/
Inborn errors of immunity in early childhood: essential insights for the neonatologist
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Gut microbiota and neonatal acute kidney injury
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The current state of neonatal neurodevelopmental follow-up programs in North America: A Children's Hospitals Neonatal Consortium Report
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Essentials of point-of-care ultrasound coding and billing at the neonatal intensive care unit setting in the United States
https://www.ncbi.nlm.nih.gov/pubmed/38698594

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The fundamentals of a parental peer-to-peer support program in the NICU: a scoping review https://pubmed.ncbi.nlm.nih.gov/39354584/
Impact of COVID-19 in pregnancy on maternal and perinatal outcomes during the delta variant period: a comparison of the delta and pre-delta time periods, 2020–2021
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Neonatal blood pressure by birth weight, gestational age, and postnatal age: a systematic review
https://pubmed.ncbi.nlm.nih.gov/38689326/

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Infant feeding and weight trajectories in the eat, sleep, console trial
a secondary analysis of a randomized clinical trial
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Association between SMOFlipid and impaired brain development on term-equivalent age brain magnetic resonance imaging in very preterm infants
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Risk factors for refractory respiratory distress syndrome among very-low-birth-weight infants
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Establishment and validation of apnea risk prediction models in preterm infants: a retrospective case control study
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Risk factors associated with anemia of prematurity requiring red blood cell transfusion in very low birth weight infants: a retrospective study
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https://pubmed.ncbi.nlm.nih.gov/39321361/
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https://pubmed.ncbi.nlm.nih.gov/39321369/
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https://pubmed.ncbi.nlm.nih.gov/39292923/
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https://pubmed.ncbi.nlm.nih.gov/39442042/
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Tranexamic acid for postpartum bleeding: a systematic review and individual patient data meta-analysis of randomised controlled trials
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Study of historic famine strengthens link between prenatal malnutrition and type 2 diabetes
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Surrogates have higher risk of pregnancy complications, research finds
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https://pubmed.ncbi.nlm.nih.gov/39414354/
Paternal metformin use and congenital malformations in offspring
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Bilious vomiting in a neonate
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Neurodevelopmental outcomes following childhood viral meningitis in Canterbury New Zealand
https://pubmed.ncbi.nlm.nih.gov/38754002/
Burden of invasive Group B Streptococcus infection among Omani infants less than 90 days old: a multicenter study
https://pubmed.ncbi.nlm.nih.gov/38808975/
Vancomycin dosing and its association with acute kidney injury in pediatric cardiac intensive care patients under 3 months of age
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Maternal syphilis leading to high efficiency in utero transmission of antiretroviral resistant HIV: intersection of two pandemics
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Emerging challenges of Mpox transmission: an in-depth scoping review and evidence mapping on breastfeeding practices in South America
https://pubmed.ncbi.nlm.nih.gov/38900066/
Blood cultures in children: maximizing their usefulness
https://pubmed.ncbi.nlm.nih.gov/38985997/
Lock therapy for treatment and prevention of catheter-related infections
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Regional cerebral oxygen saturation and estimated oxygen extraction ratio as predictive markers of major adverse events in infants with congenital heart disease
https://www.ncbi.nlm.nih.gov/pubmed/37029812
Cardiovascular manifestations of Turner syndrome: phenotypic differences between karyotype subtypes
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Multicenter evaluation of pre-operative feeding in infants with ductal dependent circulation
https://www.ncbi.nlm.nih.gov/pubmed/37209186
Echocardiogram-guided balloon valvuloplasty of the aortic valve in neonates and infants reduces contrast exposure with maintained efficacy and less aortic regurgitation
https://www.ncbi.nlm.nih.gov/pubmed/37391604
Comparative effectiveness of surgical ligation and catheter closure of patent ductus arteriosus in preterm infants
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Evaluating how physician attitudes may affect practice in fetal cardiac counseling
https://www.ncbi.nlm.nih.gov/pubmed/37335356
Unusual vascular ring in the fetus
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Adaptive growth of the ductus arteriosus and aortic isthmus in various ductus-dependent complex congenital heart diseases
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Integrating clinical and neuroimaging markers to predict the onset of posthemorrhagic ventricular dilatation in preterm neonates
https://www.ncbi.nlm.nih.gov/pubmed/39089183
General movements assessment in infants with high birth weight
https://www.ncbi.nlm.nih.gov/pubmed/39094251

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Cell-free DNA analysis for the determination of fetal red blood cell antigen genotype in individuals with alloimmunized pregnancies
https://pubmed.ncbi.nlm.nih.gov/39053010/
Management of red cell alloimmunization in pregnancy
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Rising stillbirth rates related to congenital syphilis in the United States from 2016 to 2022
https://pubmed.ncbi.nlm.nih.gov/39146539/
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https://pubmed.ncbi.nlm.nih.gov/39173174/
Correlation of polycystic ovarian syndrome phenotypes with pregnancy and neonatal outcomes
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Birthweights at term have increased globally: insights from a systematic review of 183 million births
https://pubmed.ncbi.nlm.nih.gov/38460833
Systemic lupus erythematosus is associated with an increased frequency of spontaneous preterm births: systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/38492714
Survival without severe neonatal morbidity after antenatal betamethasone dose reduction: a post hoc analysis of a randomized non-inferiority trial
https://pubmed.ncbi.nlm.nih.gov/38341166
Maternal vaccination against COVID-19 and neonatal outcomes during Omicron: INTERCOVID-2022 study
https://pubmed.ncbi.nlm.nih.gov/38367758

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Procalcitonin use after clinical practice guideline and QI intervention for febrile infants
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BASIC SCIENCE SELECTIONS
Decreased liver kinase B1 expression and impaired angiogenesis in a murine model of bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/38869353

A weighted and cumulative point system for accurate scoring of intestinal pathology in a piglet model of necrotizing enterocolitis https://www.ncbi.nlm.nih.gov/pubmed/39366159
Microbiota regulates neonatal disease tolerance to virus-evoked necrotizing enterocolitis by shaping the STAT1-NLRC5 axis in the intestinal epithelium
https://www.ncbi.nlm.nih.gov/pubmed/39293437
Feeding cessation and antibiotics improve clinical symptoms and alleviate gut and systemic inflammation in preterm pigs sensitive to necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/39241567
Git2 deficiency promotes MDSCs recruitment in intestine via NF-kappaB-CXCL1/CXCL12 pathway and ameliorates necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/39074614
Progranulin mitigates intestinal injury in a murine model of necrotizing enterocolitis by suppressing M1 macrophage polarization
https://www.ncbi.nlm.nih.gov/pubmed/38973665
p75ECD-Fc reverses neonatal hypoxic-ischemic encephalopathy-induced neurological deficits and inhibits apoptosis associated with Nestin
https://www.ncbi.nlm.nih.gov/pubmed/39278187

Other relevant articles

Efficacy and tolerance of intravenous methylprednisolone pulses in children with severe bronchopulmonary dysplasia requiring respiratory support
https://www.ncbi.nlm.nih.gov/pubmed/39436116
Nonlinear relationship between vitamin D status on admission and bronchopulmonary dysplasia in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/39379632
Achieved oxygen saturations and risk for bronchopulmonary dysplasia with pulmonary hypertension in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/38937062
Assessing the association between necrotizing enterocolitis and the type of initial central venous access in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/39373134
Conservative management of necrotizing enterocolitis in newborns: incidence and management of intestinal strictures
https://www.ncbi.nlm.nih.gov/pubmed/39348873
Investigating transmission patterns among preterm neonates during an outbreak of necrotizing enterocolitis related to Clostridium butyricum using whole-genome sequencing
https://www.ncbi.nlm.nih.gov/pubmed/39094736
Predictive value of serum inflammatory markers in retinopathy of prematurity
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