Publications Working Group

Ayan Rajgarhia, Page Editor - Children's Hospital of Orange County Craig Nankervis - Nationwide Children's Hospital Christopher Rouse - Massachusetts General Hospital for Children Vineet Lamba - Sutter Medical Center Sacramento Zeyar Htun - NYC Long Island School of Medicine L. Corbin Downey - Atrium Health Wake Forest Baptist



Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – January 2025

<u>Celastrol ameliorates hypoxic-ischemic brain injury in neonatal rats by reducing oxidative stress</u> and inflammation

Yingying Hu, Yan Nan, Hongzhou Lin, et al. Pediatr Res

There is a lack of drug therapy for hypoxic-ischemic (HI) brain injury in neonates. Celastrol (Cel) is a pentacyclic triterpene extracted from Tripterygium Wilfordi (thunder god vine) that has shown promise in protecting against oxidative stress, inflammation, and cancer for certain adult-related conditions. This study utilizes a neonatal HI brain injury model consisting of sham, HI, and HI+Cel groups. Cel administration reduced brain infarction size, microglia activation, levels of inflammation factors, and levels of oxidative stress markers by upregulating levels of p-AMPKa, Nrf2, HO-1, and by downregulating levels of TXNIP and NLRP3. This can be a promising agent for treating brain related injuries in both adult and neonatal population.

Is maternal diabetes during pregnancy associated with neurodevelopmental, cognitive and behavioural outcomes in children? Insights from individual participant data meta-analysis in ten birth cohorts

Rachelle A Pretorius, Demetris Avraam, Mònica Guxens, et al. BMC Pediatr

The study analyzed data from >200,000 mother-child pairs across 10 birth cohorts in Europe and Australia. Children (aged 7-10 years) born to mothers with GDM had higher attention-deficient hyperactive disorder (ADHD) symptoms compared to non-exposed controls. Children (aged 4-6 years) born to mothers with GDM exhibited more externalising problems than those born to mothers without GDM. A pre-existing maternal history of type 1 and type 2 diabetes mellitus was associated with ADHD symptoms at 4-6 years. This study suggests that a dysregulated metabolic

environment during pregnancy may contribute to ADHD symptoms and externalising problems in young children.

Expanded newborn screening using genome sequencing for early actionable conditionsv Alban Ziegler, Carrie Koval-Burt, Denise M Kay, et al. *JAMA*

This is an interim report Genomic Uniform-screening Against Rare Disease in All Newborns (GUARDIAN) study. This multisite, single-group, prospective, observational study was designed to learn how genomic sequencing technology can be used to effectively expand the conditions screened on newborn screening. This study conducted supplemental genome screening for 237 genes that are associated with 255 discrete conditions, most with reported penetrance of 90% or higher with established interventions or neurodevelopmental disorders associated with seizures (99 conditions), primarily composed of neurodevelopmental disorders that may benefit from early interventions or treatment of associated epilepsy. This preliminary report shares the results of 4000 participants reflecting a diverse group by parent-reported race. The majority of families consented to screening of both groups of conditions. Testing was successfully completed for 99.6% of cases. The screen-positive rate was 3.7%, including treatable conditions that are not currently included in NBS.

The fungal microbiota modulate neonatal oxygen-induced lung injury

Isaac Martin, Mary Silverberg, Ahmed Abdelgawad, et al. *Microbiome*.

While the microbiota significantly influences neonatal health, the relationship between the intestinal microbiome, particularly micro-eukaryotic members such as fungi and yeast, and lung injury severity in newborns remains unknown. The authors show that the fungal microbiota modulates hyperoxia-induced lung injury severity in very low birth weight premature infants and preclinical pseudohumanized and altered fungal colonization mouse models. Instead of fungal communities dominated by Candida and Saccharomyces, the first stool microbiomes of infants who developed bronchopulmonary dysplasia (BPD) had less interconnected community architectures with a greater diversity of rarer fungi. After using a pseudohumanized model to show that transfer to the neonatal microbiome from infants with BPD increased the severity of lung injury, we used gain and loss of function approaches to demonstrate that modulating the extent of initial neonatal fungal colonization affected the extent of BPD-like lung injury in mice. These findings demonstrate that features of the initial intestinal fungal microbiome are associated with the later development of BPD in premature neonates and exert a microbiome-driven effect that is transferable and modifiable in murine models, which suggests both causality and a potential therapeutic strategy.

Respiratory physiological changes post initiation of neurally adjusted ventilatory assist in preterm infants with evolving or established bronchopulmonary dysplasia Basma Mohamed, Anay Kulkarni, Donovan Duffy, et al. *Eur J Pediatr* This study aims to assess respiratory changes after neurally adjusted ventilatory assist (NAVA) initiation in preterm infants with evolving or established bronchopulmonary dysplasia (BPD). Respiratory data: PCO((2)) and SpO(2)/FiO(2) (S/F) ratio before and at 4, 24, 48 h post-NAVA initiation were collected. Infants born < 32 weeks with evolving and established BPD showed improvements in PCO((2)) and S/F ratio 48 h post-NAVA compared to prior: 7.6 (4.5-11.8) versus 8.1 (4.7-13.1) kPa; p < 0.001 and 285 (118-471) versus 276 (103-471); p = 0.013, respectively. NAVA improves CO((2)) clearance and oxygenation in infants with evolving or established and severe BPD at 48 h post-initiation. In severe BPD, NAVA also reduced oxygen requirements. The beneficial effects of NAVA are sustained in infants with evolving or established bronchopulmonary dysplasia (BPD), improving carbon dioxide clearance and oxygenation at 48 hours after initiation.

<u>Risk of transmission of vaccine-strain rotavirus in a neonatal intensive care unit that routinely</u> vaccinates

Morgan A Zalot, Margaret M Cortese, Kevin P O'Callaghan, et al. Pediatrics

The authors aimed to determine incidence and clinical significance of vaccine-strain transmission to unvaccinated infants in a NICU that routinely administers pentavalent rotavirus vaccine (RV5). This prospective cohort study included all patients admitted to a 100-bed NICU for 1 year. Stool specimens were collected weekly; real-time quantitative reverse-transcription polymerase chain reaction was used to detect any RV5 strain. Incidence of transmission to unvaccinated infants was calculated assuming each unvaccinated patient's stool contributed 1 patient-day at risk for transmission. Investigations and geospatial analyses were conducted for suspected transmission events. The authors found that transmission of RV5 strain was infrequent and without clinical consequences. Benefits of allowing vaccine-induced protection against rotavirus disease in infants through in-NICU RV5 vaccination appear to have outweighed risks from vaccine-strain transmission.

Safety of antenatal breastmilk expression from week 34 of pregnancy: a randomized controlled pilot study (The Express-MOM study)

Marie Bendix Simonsen, Sarah Bjerrum Bentzen, Sören Möller, et al. *Matern Health Neonatol Perinatol.*

In this pilot study, the authors aimed to investigate whether antenatal breastmilk expression (aBME) induces preterm labor among healthy nulliparous women from week 34 of pregnancy, to examine if aBME promotes the availability of MOM right after birth and affects breastfeeding outcomes. Women were randomized to aBME (10 min 2 × daily) from week 34 of pregnancy until birth or to the control group. Both groups had a breastfeeding consultation between week 33 and 34 of pregnancy and were followed until eight weeks after birth. The primary outcome was gestational age at birth. The authors found that aBME performed by healthy nulliparous women from gestational week 34 did not induce preterm labor. In most women in the intervention group,

MOM was available right after birth. The study results provide the basis for a trial among women at high risk for preterm birth.

Surgical interventions and short-term outcomes for preterm infants with post-haemorrhagic hydrocephalus: a multicentre cohort study

Elizabeth Sewell, Susan Cohen, Isabella Zaniletti, et al. Arch Dis Child Fetal Neonatal Ed.

This study included 3883 infants from 41 centers with post-hemorrhagic hydrocephalus: 36% had no surgical intervention, 16% had a temporizing device (TD) only, 19% had a permanent shunt (PS) only, and 30% had a TD-PS. Of the 46% of infants with TDs, 76% were reservoirs and 66% of infants with TDs required PS placement. The percent of infants with post-hemorrhagic hydrocephalus receiving ventricular access device placement differed by center, ranging from 4% to 79% (p<0.001). Median chronological and postmenstrual age at time of TD placement were similar between infants with only TD and those with TD-PS. Infants with TD-PS were older and larger than those with only PS at time of PS placement. Death before NICU discharge occurred in 12% of infants, usually due to redirection of care. Meningitis occurred in 11% of the cohort.

Sensorineural hearing impairment among preterm children: a Norwegian population-based study Dagny Hemmingsen, Dag Moster, Bo Lars Engdahl, et al. *Arch Dis Child Fetal Neonatal Ed*

This population-based cohort study 60,023 Norwegian preterm infants, divided in moderate-late preterm (MLP) infants (32-36 weeks), very preterm (VP) infants (28-31 weeks) and extremely preterm (EP) infants (22-27 weeks), and a reference group with all 869,797 term-born. The overall sensorineural hearing impairment (SNHI) prevalence in the preterm cohort was 1.4% compared with 0.7% in the reference group. The adjusted risk ratios (95% CIs) for SNHI were 1.7 (1.5-1.8) in MLP infants, 3.3 (2.8-3.9) in VP infants and 7.6 (6.3-9.1) in EP infants. Among EP infants, decreasing gestational age was associated with a steep increase in the risk ratio of SNHI reaching 14.8 (7.7-28.7) if born at 22-23 weeks gestation. Among the VP and MLP infants, mechanical ventilation and antibiotic therapy had strongest association with increased risk of SNHI, but infants not receiving these therapies remained at increased risk. Among EP infants intracranial hemorrhage increased the already high risk for SNHI. Of note, the authors found no signs of delayed or late-onset SNHI in preterm infants

OTHER NOTEWORTHY PUBLICATIONS – January, 2025

Pediatrics

Diagnostic performance of AAP-recommended inflammatory markers in febrile infants aged 60 days or younger https://pubmed.ncbi.nlm.nih.gov/39636262/

Breastfeeding trends following the us infant formula shortage https://pubmed.ncbi.nlm.nih.gov/39729396/

Nirsevimab effectiveness against severe respiratory syncytial virus infection in the primary care setting

https://pubmed.ncbi.nlm.nih.gov/39363387/

Health outcomes 50 years after preterm birth in participants of a trial of antenatal betamethasone <u>https://pubmed.ncbi.nlm.nih.gov/39679590/</u>

The needs and experiences of black families in the neonatal intensive care unit https://pubmed.ncbi.nlm.nih.gov/39694052/

Bereaved parents' perceptions of the doll reenactment after sudden unexpected infant deaths <u>https://pubmed.ncbi.nlm.nih.gov/39729082/</u>

Infant feeding disparities amid the formula shortage: where do we go from here? <u>https://pubmed.ncbi.nlm.nih.gov/39729398/</u>

Rotavirus vaccination in the NICU: it's time to turn opportunity into action https://pubmed.ncbi.nlm.nih.gov/39652139/

Outcomes 50 years after preterm birth: a golden opportunity to reflect on pathways toward thriving https://pubmed.ncbi.nlm.nih.gov/39679588/

An improvement project to lower pneumothorax rates in neonates born at 36 weeks' gestational age or beyond

https://pubmed.ncbi.nlm.nih.gov/39655995/

Newborn screening for critical congenital heart disease: a new algorithm and other updated recommendations: clinical report

https://pubmed.ncbi.nlm.nih.gov/39679594/

Journal of Pediatrics

Prognostic Indicators of Reorientation of Care in Perinatal Hypoxic-Ischemic Encephalopathy Spectrum

https://pubmed.ncbi.nlm.nih.gov/39216619/

Noninvasive Respiratory Support or Intubation during Stabilization after Birth and Neonatal and Neurodevelopmental Outcomes in Infants Born Preterm at 23-25 Weeks of Gestation https://pubmed.ncbi.nlm.nih.gov/39218207/

Preterm Sex Differences in Neurodevelopment and Brain Development from Early Life to 8 Years of Age

https://pubmed.ncbi.nlm.nih.gov/39218208/

Associations between Parenting and Cognitive and Language Abilities at 2 Years of Age Depend on Prenatal Exposure to Disadvantage

https://pubmed.ncbi.nlm.nih.gov/39233119/

County-Level Structural Vulnerabilities in Maternal Health and Geographic Variation in Infant Mortality

https://pubmed.ncbi.nlm.nih.gov/39216622/

Pediatric Research

Aberrant PGC-1a signaling in a lamb model of persistent pulmonary hypertension of the newborn https://pubmed.ncbi.nlm.nih.gov/38844539/

Impact of perinatal administration of probiotics on immune cell composition in neonatal mice <u>https://pubmed.ncbi.nlm.nih.gov/38278847/</u>

Insulin-like growth factor-1 effects on kidney development in preterm piglets https://pubmed.ncbi.nlm.nih.gov/38762663/

Experimental congenital diaphragmatic hernia features an alteration of DNA sensing targets cGAS and STING

https://pubmed.ncbi.nlm.nih.gov/38816442/

Bronchopulmonary dysplasia: analysis and validation of ferroptosis-related diagnostic biomarkers and immune cell infiltration features

https://pubmed.ncbi.nlm.nih.gov/38760473/

Celastrol ameliorates hypoxic-ischemic brain injury in neonatal rats by reducing oxidative stress and inflammation

https://pubmed.ncbi.nlm.nih.gov/38763946/

Blood volume reduction due to rapid plasma loss after birth in preterm piglets

https://pubmed.ncbi.nlm.nih.gov/38773295/

Novel biomarkers of preterm brain injury from blood transcriptome in sheep model of intrauterine asphyxia

https://pubmed.ncbi.nlm.nih.gov/38822135/

Establishing feasibility and reliability of subcutaneous fat measurements by ultrasound in very preterm infants

https://pubmed.ncbi.nlm.nih.gov/39069538/

Neonatal inflammation and its association with asthma and obesity in late childhood among individuals born extremely preterm

https://pubmed.ncbi.nlm.nih.gov/38914762/

Umbilical cord blood culture for early onset sepsis in preterm infants

https://pubmed.ncbi.nlm.nih.gov/38622259/

Effect of chest shielding during phototherapy for hyperbilirubinemia on symptomatic patent ductus arteriosus – a double-blind randomized placebo-controlled trial

https://pubmed.ncbi.nlm.nih.gov/38909157/

Perinatal inflammation, fetal growth restriction, and long-term neurodevelopmental impairment in Bangladesh

https://pubmed.ncbi.nlm.nih.gov/38589559/

Exposure to the parents' speech is positively associated with preterm infant's face preference https://pubmed.ncbi.nlm.nih.gov/38783114/

Serum eosinophil-derived neurotoxin: a new promising biomarker for cow's milk allergy diagnosis https://pubmed.ncbi.nlm.nih.gov/38802610/

Longitudinal relations of prematurity and fetal growth restrictions with hyperactivity/inattention and aggression/delinquency

https://pubmed.ncbi.nlm.nih.gov/38898109/

Amygdala volumes and associations with socio-emotional competencies in preterm youth: crosssectional and longitudinal data

https://pubmed.ncbi.nlm.nih.gov/38762662/

Archives of Disease in Childhood - Fetal & Neonatal Edition

Chest compressions superimposed with sustained inflation during neonatal cardiopulmonary resuscitation: are we ready for a clinical trial?

https://pubmed.ncbi.nlm.nih.gov/38453436

Retinopathy of prematurity comes full circle

https://pubmed.ncbi.nlm.nih.gov/38604651

Surgical interventions and short-term outcomes for preterm infants with post-haemorrhagic

hydrocephalus: a multicentre cohort study

https://pubmed.ncbi.nlm.nih.gov/38697810

Survival and unique clinical practices of extremely preterm infants born at 22–23 weeks' gestation in Japan: a national survey

https://pubmed.ncbi.nlm.nih.gov/38777561

Top 10 research priorities for congenital diaphragmatic hernia In Australia: James Lind Alliance Priority Setting Partnership

https://pubmed.ncbi.nlm.nih.gov/38880507

Impact of NICE clinical guidelines for prevention and treatment of neonatal infections on antibiotic use in very preterm infants in England and Wales: an interrupted time series analysis https://pubmed.ncbi.nlm.nih.gov/38802167

Retinopathy of prematurity in Germany over 13 years: incidences, treatment preferences and effects of national guideline changes

https://pubmed.ncbi.nlm.nih.gov/38816192

Identifying neonatal transport research priorities: a modified Delphi consensus

https://pubmed.ncbi.nlm.nih.gov/38857987

Association between bronchopulmonary dysplasia severity and its risk factors and long-term outcomes in three definitions: a historical cohort study

https://pubmed.ncbi.nlm.nih.gov/38897634

Effect of probiotic supplementation on the gut microbiota in very preterm infants: a systematic review

https://pubmed.ncbi.nlm.nih.gov/38925919

Sensorineural hearing impairment among preterm children: a Norwegian population-based study <u>https://pubmed.ncbi.nlm.nih.gov/38839263</u>

Predictors of successful neonatal intubation in inexperienced operators: a secondary, nonrandomised analysis of the SHINE trial

https://pubmed.ncbi.nlm.nih.gov/38969493

UK neonatal stoma practice: a population study

https://pubmed.ncbi.nlm.nih.gov/38897635

Brain 3T magnetic resonance imaging in neonates: features and incidental findings from a research

cohort enriched for preterm birth

https://pubmed.ncbi.nlm.nih.gov/38960453

Association between video laryngoscopy characteristics and successful neonatal tracheal

intubation: a prospective study

https://pubmed.ncbi.nlm.nih.gov/38951017

Efficacy of refrigerated gel packs for therapeutic hypothermia in neonatal retrieval: a retrospective cohort study

https://pubmed.ncbi.nlm.nih.gov/38964844

Case–control study of milk curd obstruction in newborn infants in a tertiary surgical neonatal intensive care unit

https://pubmed.ncbi.nlm.nih.gov/39406473

Sebaceous naevus syndrome with multisystemic manifestations

https://pubmed.ncbi.nlm.nih.gov/38902016

Journal of Perinatology

Use of mucolytics and inhaled antibiotics in the NICU

https://pubmed.ncbi.nlm.nih.gov/39562833

Interstitial lung disease in the newborn

https://pubmed.ncbi.nlm.nih.gov/38956315

Association of antenatal steroid administration with neonatal morbidities among late preterm multiple gestation infants

https://pubmed.ncbi.nlm.nih.gov/39354211

Using a simplified Downes score to predict the receipt of surfactant in a highly resourced setting <u>https://pubmed.ncbi.nlm.nih.gov/39103471</u>

Feasibility and safety of surfactant administration via laryngeal mask airway as first-line therapy for a select newborn population: results of a standardized clinical protocol

https://pubmed.ncbi.nlm.nih.gov/39215195

High-frequency oscillatory ventilation with or without volume guarantee during neonatal transport https://pubmed.ncbi.nlm.nih.gov/39242946

Airway diseases in very low birth weight infants

https://pubmed.ncbi.nlm.nih.gov/39039224

Oxygenation associated with cord management strategies among preterm infants <32 weeks gestation during the transition period

https://pubmed.ncbi.nlm.nih.gov/39394453

Implementation of a novel bubble continuous positive airway pressure system with a blender in preterm infants in a low resource setting

https://pubmed.ncbi.nlm.nih.gov/39406941

Point-of-care lung ultrasound for continuous positive airway pressure discontinuation in preterm infants

https://pubmed.ncbi.nlm.nih.gov/39496765

High vs low CPAP strategy with aerosolized calfactant in preterm infants with respiratory distress

syndrome

https://pubmed.ncbi.nlm.nih.gov/38594414

Elective high frequency oscillatory ventilation versus conventional mechanical ventilation on the chronic lung disease or death in preterm infants administered surfactant: a systematic review and meta-analysis

https://pubmed.ncbi.nlm.nih.gov/39623024

Association of delayed cord clamping with acute kidney injury and two-year kidney outcomes in extremely premature neonates: a secondary analysis of the preterm erythropoietin neuroprotection trial (PENUT)

https://pubmed.ncbi.nlm.nih.gov/39070632

Acute kidney injury associated with increased costs in the neonatal intensive care unit: analysis of Pediatric Health Information System database

https://pubmed.ncbi.nlm.nih.gov/39639120

Implementation of an EOS calculator-based protocol decreased infant antibiotic exposure in chorioamnionitis without correlation with placental histopathology

https://pubmed.ncbi.nlm.nih.gov/39521889

Time to positivity of Coagulase Negative Staphylococcus In Neonatal Blood Cultures as an adjunct tool to help discriminate between sepsis and contamination

https://pubmed.ncbi.nlm.nih.gov/39488666

Epidemiology and treatment of herpes simplex virus in the neonatal intensive care unit https://pubmed.ncbi.nlm.nih.gov/39394454

Hepatitis C infection screening and connection to care among postpartum patients and exposed infants in two community hospitals, 3-year follow-up — Oregon, 2019–2024

https://pubmed.ncbi.nlm.nih.gov/39369084

Antiseptic efficacy and plasma chlorhexidine levels following two different methods of application of 1% aqueous chlorhexidine gluconate for skin disinfection in preterm newborns: a randomized controlled trial

https://pubmed.ncbi.nlm.nih.gov/39304730

Don't wait, vaccinate: evaluation of routine vaccination administration and reactogenicity in preterm infants

https://pubmed.ncbi.nlm.nih.gov/39256613

Use and utility of C-reactive protein (CRP) in neonatal early-onset sepsis: a secondary analysis of a prospective surveillance study

https://pubmed.ncbi.nlm.nih.gov/39103472

Decreasing early invasive mechanical ventilation exposure in preterm infants: a quality improvement initiative

https://pubmed.ncbi.nlm.nih.gov/39198555

Neonatology

Influence of early total enteral feeding in preterm infants with respiratory distress syndrome https://pubmed.ncbi.nlm.nih.gov/39019022

Impact of early- and high-dose caffeine on the cerebellum development in newborn rats https://pubmed.ncbi.nlm.nih.gov/39053436

Diagnostic utility of preserved dried umbilical cord polymerase chain reaction in intrauterine herpes simplex virus infection: a case report and literature review

https://pubmed.ncbi.nlm.nih.gov/39137732

Real-time ultrasound tip location reduces malposition and radiation exposure during umbilical venous catheter placement in neonates: a retrospective, observational study

https://pubmed.ncbi.nlm.nih.gov/38934171

Effect of cerebral oximetry-guided treatment on brain injury in preterm infants as assessed by magnetic resonance imaging at term equivalent age: an ancillary SafeBoosC-III study https://pubmed.ncbi.nlm.nih.gov/38934161

Less invasive surfactant administration in preterm infants in tertiary neonatal intensive care units in Germany: a survey

https://pubmed.ncbi.nlm.nih.gov/39019018

Neonatal sequential organ failure assessment score predicts respiratory outcomes in preterm newborns with late-onset sepsis: a retrospective study

https://pubmed.ncbi.nlm.nih.gov/39500295

Cord obstruction and delayed cord clamping do not affect gut function in neonatal piglets <u>https://pubmed.ncbi.nlm.nih.gov/38952138</u>

Magnetic resonance imaging assessment of pulmonary vascularity in preterm infants with bronchopulmonary dysplasia

https://pubmed.ncbi.nlm.nih.gov/39074457

The role of infant gut microbiota modulation by perinatal maternal probiotic intervention in atopic eczema risk reductionhttps://pubmed.ncbi.nlm.nih.gov/39074448

Association between congenital anomalies and late-onset bacterial infections in neonates admitted to neonatal intensive care units in Australia and New Zealand: s population-based cohort study

https://pubmed.ncbi.nlm.nih.gov/39299217

Intermediate vs. high oxygen saturation targets in preterm infants: a national cohort study <u>https://pubmed.ncbi.nlm.nih.gov/39102804</u>

Neonatal adverse outcomes among hospital livebirths in Canada: a national retrospective study <u>https://pubmed.ncbi.nlm.nih.gov/39173602</u>

Neonatal linear immunoglobulin A bullous dermatosis: a critical case recovering after prompt recognition, intensive management, and breastfeeding interruption – a case report https://pubmed.ncbi.nlm.nih.gov/39278203

American Journal of Perinatology

Long-term neurodevelopmental outcomes in children with gastroschisis: a review of the literature https://pubmed.ncbi.nlm.nih.gov/38810899/

Reduced expression of REG4 as a sign of altered goblet cell function in necrotizing enterocolitis https://pubmed.ncbi.nlm.nih.gov/39008984/ Gestational weight gain and neonatal biometry during the Covid-19 pandemic: a multicenter observational cohort

https://pubmed.ncbi.nlm.nih.gov/38810962/

Multivariate analysis of factors associated with feeding mother's own milk at discharge in preterm infants: a retrospective cohort study

https://pubmed.ncbi.nlm.nih.gov/38991527/

Respiratory severity score and oxygen saturation index during the first 2 hours of life as predictors for noninvasive respiratory support failure in respiratory distress syndrome

https://pubmed.ncbi.nlm.nih.gov/38843819/

Genomic differences between spontaneous versus indicated extreme preterm birth https://pubmed.ncbi.nlm.nih.gov/38889886/

Influences of a remote monitoring program of home nasogastric tube feeds on transition from NICU to home

https://pubmed.ncbi.nlm.nih.gov/38889888/

Clinical characteristics of necrotizing enterocolitis diagnosed by independent adjudication of abdominal radiographs, laparotomy, or autopsy in preterm infants in the "connection trial" https://pubmed.ncbi.nlm.nih.gov/38986486/

Journal of Neonatal-Perinatal Medicine

No new content

Maternal Health, Neonatology and Perinatology

Charting a new course: advancing maternal and neonatal health through collaborative innovation <u>https://pubmed.ncbi.nlm.nih.gov/39894801/</u>

Neoreviews

Framework for staff and leaders to address racism in neonatal intensive care units https://pubmed.ncbi.nlm.nih.gov/39740165/ Neonatal cutaneous vascular anomalies https://pubmed.ncbi.nlm.nih.gov/39740173/ Peripheral intravenous catheter–associated injuries in neonates: monitoring, diagnosis, management, and complications https://pubmed.ncbi.nlm.nih.gov/39740169/ Skin care of infants born at 21–23 weeks' gestation https://pubmed.ncbi.nlm.nih.gov/39740169/ Hypoxia, poor lower extremity perfusion, and metabolic acidosis in the first day of life https://pubmed.ncbi.nlm.nih.gov/39740168/ A rare case of an oropharyngeal mass causing respiratory distress https://pubmed.ncbi.nlm.nih.gov/39740172/ A day in the woods in pregnancy: fetal and neonatal implications https://pubmed.ncbi.nlm.nih.gov/39740171/ Two unusual facial clefts in a preterm neonate https://pubmed.ncbi.nlm.nih.gov/39740170/ Prenatal diagnosis of neuroblastoma https://pubmed.ncbi.nlm.nih.gov/39740166/

JAMA Pediatrics

Systemic corticosteroids to prevent bronchopulmonary dysplasia balancing risk and reward https://pubmed.ncbi.nlm.nih.gov/39556388/

Systemic postnatal corticosteroids, bronchopulmonary dysplasia, and survival free of cerebral palsy

https://pubmed.ncbi.nlm.nih.gov/39556404/

Preterm birth and caregiver employment decisions https://pubmed.ncbi.nlm.nih.gov/39466237/

BMC Pediatrics

The association of public health interventions regarding both infant sleep position and pertussis immunization with sudden infant death syndrome rates: an ecological study https://pubmed.ncbi.nlm.nih.gov/39885457/

A community-based father education intervention on breastfeeding practice in Ethiopia: a quasiexperimental study

https://pubmed.ncbi.nlm.nih.gov/39885449/

Is maternal diabetes during pregnancy associated with neurodevelopmental, cognitive and behavioural outcomes in children? Insights from individual participant data meta-analysis in ten birth cohorts

https://pubmed.ncbi.nlm.nih.gov/39885386/

The association between gestational selective serotonin reuptake inhibitor (SSRI) treatment and newborn thyroid screen: a large-scale cohort study

https://pubmed.ncbi.nlm.nih.gov/39881217/

Understanding the experience of the mothers' ability to take care of their preterm infants related to in-hospital and post-discharge: a qualitative content analysis

https://pubmed.ncbi.nlm.nih.gov/39881246/

White noise's effect on premature infants' physiological parameters during peripheral intravenous catheter insertion

https://pubmed.ncbi.nlm.nih.gov/39875927/

Frequency and types of antibiotic usage in a referral neonatal intensive care unit, based on the world health organization classification (AwaRe)

https://pubmed.ncbi.nlm.nih.gov/39856585/

Risk factors for early periventricular intraventricular hemorrhage in extremely low birth weight infants: a retrospective study

https://pubmed.ncbi.nlm.nih.gov/39856591/

Incidence and risk factors for clinical omphalitis among neonates in Eastern Uganda using chlorhexidine gel for cord care: a community-cohort study

https://pubmed.ncbi.nlm.nih.gov/39856647/

Theoretical impact of a bedside decision-making tool on antibiotic use for suspected neonatal healthcare-associated infection: an observational study

https://pubmed.ncbi.nlm.nih.gov/39838378/

Surviving prematurity: retrospective longitudinal study of multisystem consequences in pretermborn individuals from infancy to adolescence

https://pubmed.ncbi.nlm.nih.gov/39827142/

Incidence and outcomes of neonatal group B streptococcal sepsis in Qatar-a multicentre study https://pubmed.ncbi.nlm.nih.gov/39825283/

A qualitative systematic review of umbilical cord care practices in Nigeria

https://pubmed.ncbi.nlm.nih.gov/39815231/

Pre-pregnancy obesity and weight gain during pregnancy: impact on newborn outcomes https://pubmed.ncbi.nlm.nih.gov/39810166/

Home oxygen therapy for Thai preterm infants with bronchopulmonary dysplasia. What are the predictive factors for successful weaning: a 20-year review

https://pubmed.ncbi.nlm.nih.gov/39799305/

Beliefs and perceptions towards congenital anomalies in Dilla town, Gedeo Zone, Southern Ethiopia; a qualitative study

https://pubmed.ncbi.nlm.nih.gov/39799322/

Pediatric Critical Care Medicine

Prospective randomized pilot study comparing bivalirudin versus heparin in neonatal and pediatric extracorporeal membrane oxygenation https://pubmed.ncbi.nlm.nih.gov/39585174/

New England Journal of Medicine

What is the relative value of a baby? https://pubmed.ncbi.nlm.nih.gov/39868928

<u>Lancet</u>

No relevant articles

<u>JAMA</u>

Expanded newborn screening using genome sequencing for early actionable conditions https://pubmed.ncbi.nlm.nih.gov/39446378

<u>BMJ</u>

No relevant articles

Pediatric Infectious Disease Journal

Insight into severe neonatal COVID-19 gained through whole exome sequencing of twin neonates https://pubmed.ncbi.nlm.nih.gov/39082788 Obstructive bilateral renal fungal bezoars in an extremely premature neonate treated with antifungals and urokinase irrigation: a case report and review of the literature https://pubmed.ncbi.nlm.nih.gov/39163305 Fatal neonatal influenza a myocarditis https://pubmed.ncbi.nlm.nih.gov/39163346 Stenotrophomonas maltophilia associated factors and outcomes in a neonatal intensive care unit: a retrospective matched case-control study https://pubmed.ncbi.nlm.nih.gov/39705406

Pediatric Cardiology

Enhancing quality of congenital heart care within resource-limited settings https://pubmed.ncbi.nlm.nih.gov/38123833/ Myocardial work for dynamic monitoring of myocardial injury in neonatal asphyxia https://pubmed.ncbi.nlm.nih.gov/38123832/ 15-year analysis of surgical approaches and outcomes for coarctation in 132 neonates and infants https://pubmed.ncbi.nlm.nih.gov/38557773/ Dichorionic diamniotic twin pairs with complex congenital heart disease https://pubmed.ncbi.nlm.nih.gov/37964109/

Pediatric Neurology

Prenatally diagnosed holoprosencephaly: review of the literature and practical recommendations for pediatric neurologists https://pubmed.ncbi.nlm.nih.gov/39577233/

Obstetrics and Gynecology

No relevant articles

American Journal of Obstetrics & Gynecology

Evidence of brain injury in fetuses of mothers with preterm labor with intact membranes and preterm premature rupture of membranes

https://pubmed.ncbi.nlm.nih.gov/38685550/

Intrapartum electronic fetal heart rate monitoring to predict acidemia at birth with the use of deep learning

https://pubmed.ncbi.nlm.nih.gov/38663662/

Maternal rest improves growth in small-for-gestational-age fetuses (<10th percentile) https://pubmed.ncbi.nlm.nih.gov/38842845/

Hospital Pediatrics

No relevant articles

BASIC SCIENCE SELECTIONS

The fungal microbiota modulate neonatal oxygen-induced lung injury

https://www.ncbi.nlm.nih.gov/pubmed/39871397

Cyclin G1 regulates the alveolarization in models of bronchopulmonary dysplasia by inhibiting AT2 cell proliferation

https://www.ncbi.nlm.nih.gov/pubmed/39858495

Single, double, and triple-hit strategies to establish a long-term premature rabbit model of bronchopulmonary dysplasia

https://www.ncbi.nlm.nih.gov/pubmed/39856659

Silencing Map3k7 suppresses pyroptosis to alleviate bronchopulmonary dysplasia through inhibiting the TGF-beta1/Smad3 pathway

https://www.ncbi.nlm.nih.gov/pubmed/39815896

Reversal of Mucin 1 reduction-induced enterocyte apoptosis by retinoic acid through the PI3K/AKT signaling pathway in an in vitro model of necrotizing enterocolitis

https://www.ncbi.nlm.nih.gov/pubmed/39819412

Glucagon-like peptides agonists promote maturation of intestinal organoids derived from neonates with necrotizing enterocolitis

https://www.ncbi.nlm.nih.gov/pubmed/39828765

The IRE1-XBP1 axis regulates NLRP3 inflammasome-mediated microglia activation in hypoxic ischemic encephalopathy

https://www.ncbi.nlm.nih.gov/pubmed/39612277

Other noteworthy articles

Respiratory physiological changes post initiation of neurally adjusted ventilatory assist in preterm infants with evolving or established bronchopulmonary dysplasia

https://www.ncbi.nlm.nih.gov/pubmed/39878837

Nasal high-flow therapy versus low-flow oxygen therapy post-discharge in infants with bronchopulmonary dysplasia: a retrospective observational study

https://www.ncbi.nlm.nih.gov/pubmed/39688348

Clinical outcomes through two years for infants with bronchopulmonary dysplasia and tracheomalacia

https://www.ncbi.nlm.nih.gov/pubmed/39636156

PDA management strategies and pulmonary hypertension in extreme preterm infants with bronchopulmonary dysplasia

https://www.ncbi.nlm.nih.gov/pubmed/38898108

Effect of gestational age on clinical features in necrotizing enterocolitis-associated intestinal perforation

https://www.ncbi.nlm.nih.gov/pubmed/39834496

Gentamicin pharmacokinetics in neonates undergoing therapeutic hypothermia for hypoxic ischemic encephalopathy

https://www.ncbi.nlm.nih.gov/pubmed/39446309

A meta-analysis of intravitreal ranibizumab versus laser photocoagulation for the treatment of retinopathy of prematurity

https://www.ncbi.nlm.nih.gov/pubmed/39842716

Evaluating the utility of initial exams in retinopathy of prematurity: proposal of first-ROP algorithm for a medium-risk cohort

https://www.ncbi.nlm.nih.gov/pubmed/39793656

Impact of omega-3 enriched lipid emulsions on retinopathy of prematurity in very low birth weight infants: a retrospective cohort analysis

https://www.ncbi.nlm.nih.gov/pubmed/3977717