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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – November, 2023

Late-onset sepsis in very low birth weight infants
Gil Klinger, Ruben Bromiker, Inna Zaslavsky-Paltiel, et al. *Pediatrics.*

This population-based study by the Israel Neonatal Network on VLBW infants (≤1500 g) born between 1995 and 2019 describes the risk factors associated with late-onset sepsis (with clinical symptoms and microbiologic confirmation). The study period was divided into 4 epochs: 1995 to 2000, 2001 to 2006, 2007 to 2012 and 2013 to 2019. The first epoch served as a baseline to which the subsequent 3 epochs were compared. Of 31 612 VLBW infants surviving to 72 hours, 7423 (23.5%) developed late-onset sepsis and 24 189 (76.5%) did not. Single episodes of late-onset sepsis were recorded in 5889 infants, 1151 infants had 2 late-onset sepsis episodes and 383 infants 3 late-onset sepsis episodes. In multivariable analysis of perinatal factors associated with late-onset sepsis More recent epochs were associated with significantly decreased risk and lower GA (23–27 w vs 31 w or greater) was strongly associated with increased risk of late-onset sepsis (OR 8.90; 95% CI, 7.85–10.09). Gram-negative and fungal rates decreased in all epochs, whereas gram-positive rates decreased only in the last epoch.

Early postnatal infection of neonates born to mothers infected by SARS-COV-2 omicron variant
Carlo Pietrasanta, Andrea Ronchi, Massimo Agosti, et al. *Pediatrics.*

This prospective, multicenter study evaluates the rate of postnatal infection during the first month of life in neonates born to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)-positive mothers during the predominant circulation of the omicron (B.1.1.529) variant. The study enrolled mothers infected by SARS-CoV-2 at delivery and their infants, if both were eligible for rooming-in, between December 2021 and March 2022. Neonates were screened for SARS-CoV-2 RNA at 1 day of life (DOL), 2 to 3 DOL, before discharge, and twice after hospital discharge. Eighty-two percent (302/366) of mothers had an asymptomatic SARS-CoV-2 infection. Among 368 neonates, 1 was considered infected in utero (0.3%), whereas the postnatal infection rate during virtually exclusive circulation of the omicron variant was 12.1%. Among neonates infected after birth, 48.6% became positive during the follow-up period. Among all SARS-CoV-2-positive infants, 97.7% were always asymptomatic, whereas only 1 (2.3%) experienced mild symptoms (rhinitis) during follow-up evaluations.

Phototherapy: a new risk factor for necrotizing enterocolitis in very low birth weight preterm infants? a retrospective case–control study
Jie Li, Xiao-Yun Zhong, Li-Gang Zhou, et al. *J Perinatol.*

This is a retrospective case-control study over 7 years that investigated whether there is an association with exposure to phototherapy and the development of necrotizing enterocolitis (stage IIA or greater) in VLBW infants. Of the 74 cases with 122 controls, the odds of NEC increased with duration and number of phototherapy sessions; specifically, if the phototherapy exposure was >120 hours and >4 instances.

This is a potential association as this is the first reported study; no conclusions on causality can be drawn. Further studies are warranted to explore the findings of this study.

Developmental consequences of short apneas and periodic breathing in preterm infants

Alicia K Yee, Leon S Siriwardhana, Gillian M Nixson, et al. *J Perinatol.*

This study assessed the relationship between respiratory events experienced before and after hospital discharge and developmental outcomes at 6 months corrected age for preterm infants born between 28-32 weeks gestational age. Percentage total sleep time (%TST) with respiratory events (isolated apneas, sequential apneas and periodic breathing (PB)) at each study was calculated. Using stepwise multiple linear regressions, occurrence of respiratory events impacted language and motor outcomes at 6 months.

Identification and evaluation of probiotic potential of Bifidobacterium breve AHC3 isolated from chicken intestines and its effect on necrotizing enterocolitis (NEC) in newborn SD rats
Xiaopei Lin and Changjun Wu. *PLoS One.*

It has been reported that Bifidobacterium could protect the intestinal barrier function and reduce the risk of NEC. This study aimed to evaluate the probiotic potential of Bifidobacterium strains isolated from the chicken intestines and its effect on necrotizing enterocolitis in newborn SD rats. It was illustrated that administration of B. breve AHC3 significantly not only reduced the incidence of NEC (from 81.25% to 34.38%) ($P< 0.05$), but also alleviated the severity of ileal injury ($P< 0.05$). Compared with NEC model, B. breve AHC3 could significantly decrease the level of proinflammatory factor TNF-alpha ($P< 0.05$) and increase the level of antiinflammatory factor IL-10 ($P< 0.05$) in the ileum of NEC rats. In the neonatal SD rat model of NEC, B. breve AHC3 had an available protective effect on the intestinal injury of NEC, which might be related to reducing the inflammatory reaction in the ileum and inhibiting the expression of iNOS in intestinal tissue cells.

Bone Marrow Stromal Cell-Secreted Extracellular Vesicles Containing miR-34c-5p Alleviate Lung Injury and Inflammation in Bronchopulmonary Dysplasia Through Promotion of PTEN Degradation by Targeting OTUD3
Xiao He, Juan Kuang, Yijing Wang, et al. *Immunol Invest.*

This study explored impacts of miR-34c-5p carried by bone marrow stromal cells-secreted extracellular vesicles (BMSC-EVs) on BPD progression. EVs were isolated from BMSCs transfected with miR-34c-5p mimic or mimic NC and intratracheally injected into mice. Lung tissues of BPD mice had downregulated miR-34c-5p expression and upregulated OTUD3 and PTEN expression. BMSC-EVs and BMSC-EVs-miR-34c-5p treatment improved lung injury and alveolar structure, decreased lung resistance and IL-4, IL-13, IL-1beta, and IL-6 levels, and elevated dynamic lung compliance in BPD mice, as well as enhanced proliferation, angiogenesis, and migration and restrained inflammation in HPMECs. BMSC-EVs-miR-34c-5p alleviated lung injury and inflammation in hyperoxia-induced BPD by blocking the OTUD3/PTEN axis.

Functional morphometry: non-invasive estimation of the alveolar surface area in extremely preterm infants

Emma E Williams, J Gareth Jones, Donald McCurnin, et al. *Pediatr Res.*

The main pathophysiologic characteristic of chronic respiratory disease following extremely premature birth is arrested alveolar growth, which translates to a smaller alveolar surface area (SA). The authors sought to use non-invasive measurements to estimate the SA in 30 extremely preterm infants. They found that alveolar surface area can be estimated non-invasively in extremely preterm infants. The

adjusted alveolar surface area has the potential to predict the subsequent need for discharge home on supplemental oxygen.

Glucocorticoid signature of preterm infants developing bronchopulmonary dysplasia
Michelle Romijn, Wes Onland, Britt J van Keulen, et al. *Pediatr Res*.

Relative adrenal insufficiency is common in the first weeks after preterm birth, resulting in insufficient cortisol production for the degree of inflammation and a relative abundance of cortisol precursors. The authors investigated whether this pattern could contribute to the development of BPD in preterm infants born <30 weeks of gestation. Preterm infants developing BPD had higher levels of cortisol precursors and cortisone relative to cortisol in the first week of life, suggestive of a hypothalamus-pituitary-adrenal-axis activation during BPD development which cannot meet the high cortisol demands in tissues. This glucocorticoid pattern is likely to dispose to inflammation and BPD.

Probiotics, prebiotics, lactoferrin, and combination products for prevention of mortality and morbidity in preterm infants: a systematic review and network meta-analysis
Yuting Wang, Ivan D Florez, Rebecca L Morgan, et al. *JAMA Pediatr.*

This network meta-analysis included 106 randomized controlled trials involving 25,840 infants. Eligible trials tested probiotics, prebiotics, lactoferrin, and combination products for prevention of morbidity or mortality in preterm infants. The authors concluded that moderate- to high-certainty evidence supported an association between multistrain probiotics and reduction in all-cause mortality (risk ratio [RR], 0.69; 95% CI, 0.56 to 0.86; risk difference [RD], -1.7%; 95% CI, -2.4% to -0.8%). Combination products, including single- and multiple-strain probiotics combined with prebiotics or lactoferrin, were associated with the largest reduction in morbidity and mortality.

Deep learning to optimize magnetic resonance imaging prediction of motor outcomes after hypoxic-ischemic encephalopathy
Zachary A Vesoulis, Shamik B Trivedi, Hallie F Morris, et al. *Pediatr Neurol.*

This study included 117 infants ≥36 weeks gestational age with moderate to severe HIE who received therapeutic hypothermia and T1/T2/diffusion-weighted MRI imaging. Of these infants, adverse motor outcome (Bayley-III motor score <85 or Alberta Infant Motor Scale <10th%) was noted in 23 of 117 (20%) at 12 to 24 months. Logistic regression and gradient-boosted deep learning models were used to quantify the importance of clinical and imaging features. Putamen/globus pallidus injury on T1, gestational age, and cord pH were the three most informative features. Feature selection improved model accuracy from 79% (48-feature MRI model) to 85% (three-feature model) and was superior performance to the best logistic regression model.

OTHER NOTEWORTHY PUBLICATIONS – November 2023

COVID-19

Neonatal outcomes of premature infants born to women with the novel coronavirus (SARS-CoV-2) infection: a case control study
https://pubmed.ncbi.nlm.nih.gov/34839474
Protecting small and sick newborn care in the COVID-19 pandemic: multi-stakeholder qualitative data from four African countries with NEST360
https://pubmed.ncbi.nlm.nih.gov/37974092/
Early postnatal infection of neonates born to mothers infected by SARS-COV-2 omicron variant
https://www.ncbi.nlm.nih.gov/pubmed/37830167
Association of SARS-CoV-2 infection during early weeks of gestation with situs inversus
https://pubmed.ncbi.nlm.nih.gov/37913512/

Pediatrics

Late-onset sepsis in very low birth weight infants

https://www.ncbi.nlm.nih.gov/pubmed/37786961

Journal of Pediatrics

The mortality of congenital syphilis

https://www.ncbi.nlm.nih.gov/pubmed/37536483

First three years' experience of mucopolysaccharidosis type-I newborn screening in California

https://www.ncbi.nlm.nih.gov/pubmed/37516270

Neonatal thrombocytopenia: factors associated with the platelet count increment following platelet transfusion

https://www.ncbi.nlm.nih.gov/pubmed/37572863

Who needs a second dose of exogenous surfactant?

https://www.ncbi.nlm.nih.gov/pubmed/37271494

Ultrasonographic estimation of ventricular volume in infants born preterm with posthemorrhagic ventricular dilatation: a nested substudy of the randomized controlled early versus late ventricular intervention study (ELVIS) trial

https://www.ncbi.nlm.nih.gov/pubmed/37353143

Grand rounds hyperbilirubinemia following phototherapy in glucose-6-phosphate dehydrogenase-deficient neonates: not out of the woods

https://www.ncbi.nlm.nih.gov/pubmed/37169338

Complicated cellulitis is an independent predictor for increased length of stay in the neonatal intensive care unit

https://www.ncbi.nlm.nih.gov/pubmed/37353147

Etiology and mechanism of intermittent hypoxemia episodes in spontaneously breathing extremely premature infants

https://www.ncbi.nlm.nih.gov/pubmed/37473988

Generalizability of the necrotizing enterocolitis surgery trial to the target population of eligible infants

https://www.ncbi.nlm.nih.gov/pubmed/37169336

Severe congenital heart defects and cerebral palsy

https://www.ncbi.nlm.nih.gov/pubmed/37473991

Outcomes of neonates with hypoxic-ischemic encephalopathy treated with magnesium sulfate: a systematic review with meta-analysis

https://www.ncbi.nlm.nih.gov/pubmed/37468038

The impact of intraventricular hemorrhage and periventricular leukomalacia on mortality and neurodevelopmental outcome in very preterm and very low birthweight infants: a prospective population-based cohort study

https://www.ncbi.nlm.nih.gov/pubmed/37402440

Preterm infants off positive pressure respiratory support have a higher incidence of occult cerebral hypoxia

https://www.ncbi.nlm.nih.gov/pubmed/37517651

Pediatric Research

Functional lung morphometry: another piece in the BPD prediction puzzle?
https://pubmed.ncbi.nlm.nih.gov/37353662/

Improving neurodevelopmental trajectories after retinopathy of prematurity: challenges and opportunities
https://pubmed.ncbi.nlm.nih.gov/35292728/

Advances in neonatal cell therapies: Proceedings of the First Neonatal Cell Therapies Symposium (2022)
https://pubmed.ncbi.nlm.nih.gov/37380752/

Genetic and histopathological analysis of spermatogenesis after short-term testicular torsion in rats
https://pubmed.ncbi.nlm.nih.gov/37225778/

The association of immune-related genes and the potential role of IL10 with biliary atresia
https://pubmed.ncbi.nlm.nih.gov/37296215/

Effective early antiretroviral therapy in perinatal-HIV infection reduces subsequent plasma inflammatory profile
https://pubmed.ncbi.nlm.nih.gov/37308683/

Early assessment of injury with optical markers in a piglet model of neonatal encephalopathy
https://pubmed.ncbi.nlm.nih.gov/37308684/

L-citrulline attenuates lipopolysaccharide-induced inflammatory lung injury in neonatal rats
https://pubmed.ncbi.nlm.nih.gov/37349511/

The association of placental pathology and neurodevelopmental outcomes in patients with neonatal encephalopathy
https://pubmed.ncbi.nlm.nih.gov/37460709/

Functional morphometry: non-invasive estimation of the alveolar surface area in extremely preterm infants
https://pubmed.ncbi.nlm.nih.gov/37045946/

Early neurodevelopmental outcomes of extreme preterm infants exposed to paracetamol: a retrospective cohort study
https://pubmed.ncbi.nlm.nih.gov/37198403/

Relationships between retinopathy of prematurity without ophthalmologic intervention and neurodevelopment and vision at 2 years
https://pubmed.ncbi.nlm.nih.gov/34686832/

Association between fetal growth-restriction and retinopathy of prematurity using a unique identical twin model
https://pubmed.ncbi.nlm.nih.gov/37258717/

Usefulness of routine early œsophagogram after primary repair of œsophageal atresia: a multicenter study
https://pubmed.ncbi.nlm.nih.gov/37328687/

Experiences and opinions towards baby-led weaning by healthcare professionals. A qualitative study
https://pubmed.ncbi.nlm.nih.gov/37340099/

Reduction in regulatory T cells in preterm newborns is associated with necrotizing enterocolitis
https://pubmed.ncbi.nlm.nih.gov/37344544/

Subcortical brain volumes in neonatal hypoxic–ischemic encephalopathy

https://pubmed.ncbi.nlm.nih.gov/37353661/
Glucocorticoid signature of preterm infants developing bronchopulmonary dysplasia
https://pubmed.ncbi.nlm.nih.gov/37355738/
Cerebral oxygen saturation in neonates: a bedside comparison between neonatal and adult NIRS sensors
https://pubmed.ncbi.nlm.nih.gov/37391490/
Incubator-based active noise control device: comparison to ear covers and noise reduction zone quantification
https://pubmed.ncbi.nlm.nih.gov/37414919/
Estimated exposure to perfluoroalkyl substances during infancy and serum-adipokine concentrations in later childhood
https://pubmed.ncbi.nlm.nih.gov/37316707/
Association between infant breastfeeding practices and timing of peak height velocity: A nationwide longitudinal survey in Japan
https://pubmed.ncbi.nlm.nih.gov/37400541/

Archives of Disease in Childhood - Fetal & Neonatal Edition
Estimated neonatal survival of very preterm births across the care pathway: a UK cohort 2016–2020
https://pubmed.ncbi.nlm.nih.gov/37080732/
National priority setting partnership using a Delphi consensus process to develop neonatal research questions suitable for practice-changing randomised trials in the UK
https://pubmed.ncbi.nlm.nih.gov/37094919/
Fragility and resilience: parental and family perspectives on the impacts of extreme prematurity
https://pubmed.ncbi.nlm.nih.gov/36997307/
Health-related quality of life in adults born extremely preterm or with extremely low birth weight in the postsurfactant era: a longitudinal cohort study
https://pubmed.ncbi.nlm.nih.gov/36997308/
Video laryngoscopy-assisted less-invasive surfactant administration quality improvement initiative
https://pubmed.ncbi.nlm.nih.gov/37028921/
Effect of initial and subsequent mask applications on breathing and heart rate in preterm infants at birth
https://pubmed.ncbi.nlm.nih.gov/37080734/
Neonatal outcomes following early fetal growth restriction: a subgroup analysis of the EVERREST study
https://pubmed.ncbi.nlm.nih.gov/37185272/
Ultra-high frequency lung ultrasound in preterm neonates: a test validation study on interpretation agreement and reliability
https://pubmed.ncbi.nlm.nih.gov/37080733/
Hyper high haemoglobin content in red blood cells and erythropoietic transitions postnatally in infants of 22 to 26 weeks' gestation: a prospective cohort study
https://pubmed.ncbi.nlm.nih.gov/37169579/
Experiences of healthcare personnel with death in the neonatal intensive care unit: a systematic review of qualitative studies
https://pubmed.ncbi.nlm.nih.gov/37197908/
Early initiation of antibiotic therapy and short-term outcomes in preterm infants: a single-centre retrospective cohort analysis

https://pubmed.ncbi.nlm.nih.gov/37137680/
Prognostic value of echocardiographic parameters in congenital diaphragmatic hernia: a systematic review and meta-analysis

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Measuring Oxygenation in Newborn Infants with Targeted Oxygen Ranges (MONITOR): a randomised crossover pilot study
https://pubmed.ncbi.nlm.nih.gov/37142388/
Clinical usefulness of reintubation criteria in extremely preterm infants: a cohort study
https://pubmed.ncbi.nlm.nih.gov/37193586/
Diagnostic accuracy of small-for-gestational-age status for infant mortality and school-age outcomes of live births <28 weeks' gestation: a cohort study
https://pubmed.ncbi.nlm.nih.gov/37248031/
Herpes simplex virus infection among neonates suspected of invasive bacterial infection: a population-based cohort study
https://pubmed.ncbi.nlm.nih.gov/37225392/
Journal of Perinatology
Rates of phototherapy among ABO-incompatible newborns with a negative direct antiglobulin test
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https://pubmed.ncbi.nlm.nih.gov/37550528/
Serum ferritin values in neonates <29 weeks' gestation are highly variable and do not correlate with reticulocyte hemoglobin content
https://pubmed.ncbi.nlm.nih.gov/37596391/
The validity of hospital diagnostic and procedure codes reflecting morbidity in preterm neonates born <32 weeks gestation
https://pubmed.ncbi.nlm.nih.gov/37138163/
Trends in morbidities of late preterm infants in the neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/37393396/
Management and outcomes of periviable neonates born at 22 weeks of gestation: a single-center experience in Japan
https://pubmed.ncbi.nlm.nih.gov/37393397/
Neonatal brain MRI and short-term outcomes after acute provoked seizures
https://pubmed.ncbi.nlm.nih.gov/37454174/
Use of term reference infants in assessing the developmental outcome of extremely preterm infants: lessons learned in a multicenter study
https://pubmed.ncbi.nlm.nih.gov/37542155/
Utility of the 21-month neurodevelopmental outcome for predicting neurodevelopmental impairment at 36 months for preterm infants <29 weeks gestation
https://pubmed.ncbi.nlm.nih.gov/37714894/
The association of maternal overweight on long-term neurodevelopmental outcomes in premature infants (< 29 weeks) at 18–24 months corrected age
https://pubmed.ncbi.nlm.nih.gov/37479886/
Developmental consequences of short apneas and periodic breathing in preterm infants
https://pubmed.ncbi.nlm.nih.gov/37558750/
Preterm birth and early life environmental factors: neuropsychological profiles at adolescence and young adulthood

https://pubmed.ncbi.nlm.nih.gov/37454175/
Optimizing accuracy of birth certificate data through a statewide quality improvement initiative in Illinois
https://pubmed.ncbi.nlm.nih.gov/37783851/
Neonatology
No new articles
American Journal of Perinatology
Pulse oximetry and perfusion index screening for congenital heart defects: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35580627
Light-Emitting Diode (LED) phototherapy versus non-LED phototherapy devices for hyperbilirubinemia in neonates: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35436802
Social media as a source of medical information for parents of premature infants: a content analysis of prematurity-related Facebook groups
https://pubmed.ncbi.nlm.nih.gov/34666397
Reticulocyte count: the forgotten factor in transfusion decisions for extremely low birth weight infants
https://pubmed.ncbi.nlm.nih.gov/34560784
Journal of Neonatal-Perinatal Medicine
No new articles
Maternal Health, Neonatology and Perinatology
No new articles
Neoreviews
Postnatal corticosteroids to prevent bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/37907402
To trach or not to trach: long-term tracheostomy outcomes in infants with BPD
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Unique cardiopulmonary interactions in congenital diaphragmatic hernia: physiology and therapeutic implications
https://www.ncbi.nlm.nih.gov/pubmed/37907403
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Probiotics, prebiotics, lactoferrin, and combination products for prevention of mortality and morbidity in preterm infants: a systematic review and network meta-analysis
https://pubmed.ncbi.nlm.nih.gov/37782505
Infants eligible for neonatal hypoglycemia screening: a systematic review
https://pubmed.ncbi.nlm.nih.gov/37782488
Medications for opioid use disorder during the prenatal period and infant outcomes
https://pubmed.ncbi.nlm.nih.gov/37639266

BMC Pediatrics

Use of a novel pressure distribution system for severely ill neonates: a clinical pilot study carried out by the PREPICare consortium
https://pubmed.ncbi.nlm.nih.gov/37993822/
Screening for ELANE, HAX1 and GFI1 gene mutations in children with neutropenia and clinical characterization of two novel mutations in ELANE gene
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Concurrent and predictive validity of the Alberta Infant Motor Scale and the Peabody Developmental Motor Scales-2 administered to infants born preterm in Norway
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Development and post-Kasai procedure prognostic relevance of histological features for biliary atresia
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Computed tomography imaging-guided parasternal approach drainage for children with tension pneumomediastinum: a case series
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Exome and genome sequencing to unravel the precise breakpoints of partial trisomy 6q and partial Monosomy 2q
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Echocardiographic measurements of left ventricular dimensions and function in newborns with omphalocele and pulmonary
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Hospitalizations for congenital syphilis in children under one year old in the state of Pará, Brazilian Amazon: ecological study
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Novel mutation in ELN gene causes cardiac abnormalities and inguinal hernia: case report
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Cannulation via the external jugular vein——An alternative to conventional peripherally inserted central catheterisation for paediatric patients
https://pubmed.ncbi.nlm.nih.gov/37980462/
Analysis of genetic testing in fetuses with congenital heart disease of single atria and/or single ventricle in a Chinese prenatal cohort
https://pubmed.ncbi.nlm.nih.gov/37980516/
Prevalence and antibiotic resistance pattern of bacteria from sepsis suspected neonates at St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia
https://pubmed.ncbi.nlm.nih.gov/37980512/
Neonatal near-miss audits: a systematic review and a call to action
https://pubmed.ncbi.nlm.nih.gov/37978460/
Avoid equipment graveyards: rigorous process to improve identification and procurement of effective, affordable, and usable newborn devices in low-resource hospital settings
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Blood culture versus antibiotic use for neonatal inpatients in 61 hospitals implementing with the NEST360 Alliance in Kenya, Malawi, Nigeria, and Tanzania: a cross-sectional study
https://pubmed.ncbi.nlm.nih.gov/37968606/
Neonatal inpatient dataset for small and sick newborn care in low- and middle-income countries: systematic development and multi-country operationalisation with NEST360

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Devices and furniture for small and sick newborn care: systematic development of a planning and costing tool

https://pubmed.ncbi.nlm.nih.gov/37968613/
Using interprofessional education to build dynamic teams to help drive collaborative, coordinated and effective newborn care
https://pubmed.ncbi.nlm.nih.gov/37968582/
Target product profiles for neonatal care devices: systematic development and outcomes with NEST360 and UNICEF
https://pubmed.ncbi.nlm.nih.gov/37968603/
The Bern Birth Cohort (BeBiCo) to study the development of the infant intestinal microbiota in a high-resource setting in Switzerland: rationale, design, and methods
https://pubmed.ncbi.nlm.nih.gov/37946167/
Clinical factors associated with need for neurosurgical care in young children with imaging for macrocephaly: a case control study
https://pubmed.ncbi.nlm.nih.gov/37925412/
Changes in neonatal morbidity, neonatal care practices, and length of hospital stay of surviving infants born very preterm in the Netherlands in the 1980s and in the 2000s: a comparison analysis with identical characteristics definitions
https://pubmed.ncbi.nlm.nih.gov/37925410/
Empyema thoracic in a neonate co-infected with SARS-CoV-2 and staphylococcus arouse successfully treated with fibrinolysis: a brief report
https://pubmed.ncbi.nlm.nih.gov/37923992/
Development and validation of a model for early diagnosis of biliary atresia
https://pubmed.ncbi.nlm.nih.gov/37907911/
Medication errors related to high-alert medications in a paediatric university hospital – a cross-sectional study analysing error reporting system data
https://pubmed.ncbi.nlm.nih.gov/37907939/
Cerebral Palsy – Early Diagnosis and Intervention Trial: protocol for the prospective multicentre CP-EDIT study with focus on diagnosis, prognostic factors, and intervention
https://pubmed.ncbi.nlm.nih.gov/37899466/
Associations of prenatal maternal depressive symptoms with cord blood glucocorticoids and child hair cortisol levels in the project viva and the generation R cohorts: a prospective cohort study
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Genotype-phenotype spectrum and prognosis of early-onset Marfan syndrome
https://pubmed.ncbi.nlm.nih.gov/37891508/
Milrinone for the treatment of heart failure caused by severe Pneumonia in children with congenital heart disease: a meta-analysis
https://pubmed.ncbi.nlm.nih.gov/37891490/
Impact of early-onset fetal growth restriction on the neurodevelopmental outcome of very preterm infants at 24 months: a retrospective cohort study
https://pubmed.ncbi.nlm.nih.gov/37884935/
Safety and efficacy of therapeutic hypothermia in neonates with mild hypoxic-ischemic encephalopathy

https://pubmed.ncbi.nlm.nih.gov/37884911/
Early prediction of need for invasive mechanical ventilation in the neonatal intensive care unit using artificial intelligence and electronic health records: a clinical study
https://pubmed.ncbi.nlm.nih.gov/37872515/
eHealth usage among parents to premature or surgically treated neonates: associations with eHealth literacy, healthcare satisfaction or satisfaction with an eHealth device
https://pubmed.ncbi.nlm.nih.gov/37865736/
Screening for developmental delay in urban Rwandan children: a cross sectional study
https://pubmed.ncbi.nlm.nih.gov/37864138/
Screening and determinant of suspected developmental delays among Egyptian preschool-aged children: a cross-sectional national community-based study
https://pubmed.ncbi.nlm.nih.gov/37858055/
Nutritional status of young children born with low birthweight in a low resource setting: an observational study
https://pubmed.ncbi.nlm.nih.gov/37858130/

Pediatric Critical Care Medicine
A psychosocial care model for families affected by congenital heart disease
https://pubmed.ncbi.nlm.nih.gov/37318266/
Critical care unit characteristics and extracorporeal cardiopulmonary resuscitation survival in the pediatric cardiac population: retrospective analysis of the virtual pediatric system database
https://pubmed.ncbi.nlm.nih.gov/37458512/
Durable vascular access in neonates in the cardiac ICU: a novel technique for tunneled femoral central venous catheters
https://pubmed.ncbi.nlm.nih.gov/37458510/
Outcome of extracorporeal cardiopulmonary resuscitation in pediatric patients without congenital cardiac disease: extracorporeal life support organization registry study
https://pubmed.ncbi.nlm.nih.gov/37477526/
The cardiovascular system in cardiogenic shock: insight from a cardiovascular simulator
https://pubmed.ncbi.nlm.nih.gov/37702585/
Acute hemodynamics in the Fontan circulation: open-label study of vasopressin
https://pubmed.ncbi.nlm.nih.gov/37462430/
Improving outcomes for infants after cardiopulmonary bypass surgery for congenital heart disease: a commentary on recent randomized controlled trials
https://pubmed.ncbi.nlm.nih.gov/37607086/
A program of assessment model for point-of-care ultrasound training for pediatric critical care providers: a comprehensive approach to enhance competency-based point-of-care ultrasound training
https://pubmed.ncbi.nlm.nih.gov/37260313/
Epinephrine dosing use during extracorporeal cardiopulmonary resuscitation: single-center retrospective cohort
https://pubmed.ncbi.nlm.nih.gov/37439601/
Outcomes of gastrostomy and tracheostomy in infants undergoing truncus arteriosus repair: database study using the pediatric health information system
https://pubmed.ncbi.nlm.nih.gov/37294140/
Failed extubation in neonates after cardiac surgery: a single-center, retrospective study
https://pubmed.ncbi.nlm.nih.gov/37219966/

New England Journal of Medicine

Severe immune-related enteritis after in utero exposure to pembrolizumab
https://pubmed.ncbi.nlm.nih.gov/37937778/
Randomized trial of hyperimmune globulin for congenital CMV infection — 2-year outcomes
https://pubmed.ncbi.nlm.nih.gov/37937785/
**Defining the neurologic consequences of preterm birth
https://pubmed.ncbi.nlm.nih.gov/37937791/
High-resolution and noninvasive fetal exome screening
https://pubmed.ncbi.nlm.nih.gov/37991862/
Comprehensive noninvasive fetal screening by deep trio-exome sequencing
https://pubmed.ncbi.nlm.nih.gov/37991863/

Lancet

No relevant articles

JAMA

No relevant articles

BMJ

No relevant articles

Pediatric Infectious Disease Journal

Hospitalizations and clinical severity of COVID-19 among infants under 1-year-old
https://pubmed.ncbi.nlm.nih.gov/37523511/
Congenital Echovirus 11 infection in a neonate
https://pubmed.ncbi.nlm.nih.gov/37523578/

Antimicrobial resistance patterns among neonates referred to pediatric emergency in north india: a prospective cohort study
https://pubmed.ncbi.nlm.nih.gov/37523584/
Successful use of cefiderocol to treat a multidrug-resistant stenotrophomonas maltophilia ventilator-associated pneumonia in an extremely preterm neonate
https://pubmed.ncbi.nlm.nih.gov/37523574/
Experience in prevention of nosocomial and horizontal transmission of sars-CoV-2 in the NICU
https://pubmed.ncbi.nlm.nih.gov/37409819/

Pediatric Cardiology

Feasibility of digital stethoscopes in telecardiology visits for interstage monitoring in infants with palliated congenital heart disease
https://pubmed.ncbi.nlm.nih.gov/37285041
A novel approach to fetal ECG extraction using Temporal Convolutional Encoder–Decoder network (TCED-Net)
https://pubmed.ncbi.nlm.nih.gov/37596420
3D-printed cardiac models for fetal counseling: a pilot study and novel approach to improve communication

https://pubmed.ncbi.nlm.nih.gov/37199756
Establishing carotid seldinger as routine access in infants; planning, performance, and follow-up protocols
https://pubmed.ncbi.nlm.nih.gov/37603081
Pediatric Neurology
Neonatal cardiac arrest following lacosamide treatment: a case report
https://pubmed.ncbi.nlm.nih.gov/37913565
Deep learning to optimize magnetic resonance imaging prediction of motor outcomes after hypoxic-ischemic encephalopathy
https://pubmed.ncbi.nlm.nih.gov/37774643
Epilepsy frequency and risk factors three years after neonatal seizures
https://pubmed.ncbi.nlm.nih.gov/37866139
Perinatal hypoxic-ischemic encephalopathy: incidence over time within a modern US birth cohort
https://pubmed.ncbi.nlm.nih.gov/37883841
Obstetrics and Gynecology
Neighborhood socioeconomic disadvantage and abnormal birth weight
https://pubmed.ncbi.nlm.nih.gov/37769319/
Association of parity and previous birth outcome with brachial plexus birth injury risk
https://pubmed.ncbi.nlm.nih.gov/37797333/
American Journal of Obstetrics & Gynecology
Antibiotic treatment of women with isolated intrapartum fever vs clinical chorioamnionitis: maternal and neonatal outcomes
https://doi.org/10.1016/j.ajog.2023.05.013
Stillbirth risk and smallness for gestational age according to Hadlock, INTERGROWTH-21st, WHO, and GROW fetal weight standards: analysis by maternal ethnicity and body mass index
https://pubmed.ncbi.nlm.nih.gov/37247647/
Predicting primary cesarean delivery in pregnancies complicated by gestational diabetes mellitus
https://pubmed.ncbi.nlm.nih.gov/37290567/
Impact of household income and special supplemental nutritional program for women, infants, and children on feeding decisions for infants in the United States
https://pubmed.ncbi.nlm.nih.gov/37315753/
Triple trouble: uncovering the risks and benefits of early fetal reduction in trichorionic triplets in a large national Danish cohort study
https://pubmed.ncbi.nlm.nih.gov/37263399/
Prenatal diagnosis of giant dural sinus malformation
https://pubmed.ncbi.nlm.nih.gov/36963622/
Hospital Pediatrics
Effect of viral illness on procalcitonin as a predictor of bacterial infection in febrile infants
https://pubmed.ncbi.nlm.nih.gov/37781731/
Evaluating epidemiologic trends and variations in NICU admissions in California, 2008 to 2018

https://pubmed.ncbi.nlm.nih.gov/37867440/
Feedback culture perceived by trainees in an academic institution: a mixed methods study
https://pubmed.ncbi.nlm.nih.gov/37791431/
Increasing exclusive nursery care of late preterm and low birth weight infants
https://pubmed.ncbi.nlm.nih.gov/37818615/
Effect modifiers of the association of high-flow nasal cannula and bronchiolitis length of stay
https://pubmed.ncbi.nlm.nih.gov/37795554/

BASIC SCIENCE SELECTIONS

Targeted LC-MS/MS profiling of bile acids reveals primary/secondary bile acid ratio as a novel biomarker for necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/37938412
miRNA-301 As a molecule promoting necrotizing enterocolitis by inducing inflammation
https://www.ncbi.nlm.nih.gov/pubmed/38015074
Identification and evaluation of probiotic potential of Bifidobacterium breve AHC3 isolated from chicken intestines and its effect on necrotizing enterocolitis (NEC) in newborn SD rats
https://www.ncbi.nlm.nih.gov/pubmed/37917716
Plasma anti-myosin autoantibodies in the diagnosis of necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/37715022
Recruitment of PVT1 enhances YTHDC1-mediated m6A modification of IL-33 in hyperoxia-induced lung injury during bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/37917328
Impact of bronchopulmonary dysplasia on brain GABA concentrations in preterm infants: Prospective cohort study
https://www.ncbi.nlm.nih.gov/pubmed/37757548
ILC2 influence the differentiation of alveolar type II epithelial cells in bronchopulmonary dysplasia mice
https://www.ncbi.nlm.nih.gov/pubmed/37647586
Bone marrow stromal cell-secreted extracellular vesicles containing miR-34c-5p alleviate lung injury and inflammation in bronchopulmonary dysplasia through promotion of PTEN degradation by targeting OTUD3
https://www.ncbi.nlm.nih.gov/pubmed/37310728
Perinatal Azithromycin Provides Limited Neuroprotection in an Ovine Model of Neonatal Hypoxic-Ischemic Encephalopathy
https://www.ncbi.nlm.nih.gov/pubmed/37846563
Role of mammalian target of rapamycin in the formation and progression of retinopathy of prematurity-like vascular abnormalities in neonatal rats
https://www.ncbi.nlm.nih.gov/pubmed/37963514
ADDITIONAL JOURNAL SELECTIONS
Respiratory culture growth and 3-years lung health outcomes in children with bronchopulmonary dysplasia and tracheostomies
https://www.ncbi.nlm.nih.gov/pubmed/37937895
Intratracheal Instillation of Budesonide-Surfactant for Prevention of Bronchopulmonary Dysplasia in Extremely Premature Infants

https://www.ncbi.nlm.nih.gov/pubmed/37913780
Dynamic computed tomography for evaluation of tracheobronchomalacia in premature infants with bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/37646125
Glucocorticoid signature of preterm infants developing bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/37355738
Acute kidney injury in infants with hypoxic-ischemic encephalopathy
https://www.ncbi.nlm.nih.gov/pubmed/37947899
Association of EEG background and neurodevelopmental outcome in neonates with hypoxic-ischemic encephalopathy receiving hypothermia
https://www.ncbi.nlm.nih.gov/pubmed/37816642
Progress in the treatment of neonatal hypoxic-ischemic encephalopathy with umbilical cord blood mononuclear cells
https://www.ncbi.nlm.nih.gov/pubmed/37806836
Risk factors for natural hearing evolution in newborns with congenital cytomegalovirus infection
https://www.ncbi.nlm.nih.gov/pubmed/37917050
Early onset neonatal thrombocytopenia is associated with severe intraventricular hemorrhage in very preterm infants: A retrospective cohort study
https://www.ncbi.nlm.nih.gov/pubmed/37980686
Antibiotic administration reduced intra-amniotic inflammation 7 days after preterm premature rupture of the membranes with intra-amniotic infection
https://www.ncbi.nlm.nih.gov/pubmed/38016702
Major surgery, brain injury, and neurodevelopmental outcomes in very preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/37821234
A prospective cohort study evaluating exclusive breastfeeding in late preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/38015614
Factors associated with high exclusive breastfeeding rates among preterm infants under 34 weeks of gestation in Da Nang, Vietnam: A retrospective cohort study
https://www.ncbi.nlm.nih.gov/pubmed/37934970
Effectiveness of Propranolol in Preventing Severe Retinopathy of Prematurity: A Comprehensive Systematic Review and Meta-Analysis
https://www.ncbi.nlm.nih.gov/pubmed/37979602
Efficacy of four anti-vascular endothelial growth factor agents and laser treatment for retinopathy of prematurity: A network meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/37976345
Role of fetal hemoglobin in the development and progression of retinopathy of prematurity in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/37870010
Placental Inflammation Significantly Correlates with Reduced Risk for Retinopathy of Prematurity
https://www.ncbi.nlm.nih.gov/pubmed/36822266
Insulin-like growth factor-1 and retinopathy of prematurity: A systemic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/37423521
The effects of mydriatic eye drops on cerebral blood flow and oxygenation in retinopathy of prematurity examinations
https://www.ncbi.nlm.nih.gov/pubmed/37606703