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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – August 2022

Noninvasive neurally adjusted ventilation in postextubation stabilization of preterm infants: a randomized controlled study
Seung Han Shin, Seung Hyun Shin, Seh Hyun Kim, et al. J Pediatr.

This prospective, single-center, randomized controlled trial enrolled preterm infants born at <30 weeks of gestation who received invasive ventilation. Infants were randomized to receive either noninvasive neurally adjusted ventilatory assist (NIV-NIVA) (n=35) or NCPAP (n=35) after their first extubation attempt. The authors found that extubation failure within 72 hours was higher in the NCPAP group than in the NIV-NAVA group (28.6% vs 8.6%; P = .031). They concluded that in their trial, NIV-NAVA was more effective than NCPAP in preventing extubation failure in preterm infants.

Iron status in very preterm infants receiving prophylactic iron supplementation after birth
Carmen Landry, Jon Dorling, Ketan Kulkarni, et al. J Pediatr.

This retrospective cohort study was conducted through a provincial database on all very preterm infants born in Nova Scotia between 2005 and 2018. All infants received prophylactic iron supplements starting at 2-4 weeks of chronological age and were tested for iron deficiency at 4 or 6 months corrected age. Among 411 infants, 132 (32.1%) had iron deficiency and 11 (2.7%) had iron deficiency anemia. In addition, gestational hypertension, gestational age <27 weeks, and exclusive formula-feeding were identified as risk factors

Association of antenatal steroids with surfactant administration in moderate preterm infants born to women with diabetes mellitus and/or hypertension
Heather M Weydig, Charles R Rosenfeld, Myra H Wyckoff, et al. J Perinatol.

This is a pre-post cohort study among moderate preterm births [29 0/7-33 6/7wks' gestational age GA), (n = 1,813)] before and after expansion of antenatal steroid (ANS) administration to women with hypertensive disorders (HTN) and/or diabetes mellitus (DM). The study compared surfactant administration in Group-1 (neither HTN nor DM), Group-2a (HTN not DM), Group-2b (DM not HTN) and Group-2c (DM and HTN). The results showed that surfactant was less frequently administered after ANS in Group-1 [P = 0.03], Group-2a (P < 0.001) and Group-2c (P = 0.007) but not Group-2b (P = 0.64). The study concluded that ANS administration was independently associated with less surfactant administration in moderately preterm neonates born to mothers with neither HTN nor DM, and those with HTN, but not those with DM without HTN.

Trends in active treatment of live-born neonates between 22 weeks 0 days and 25 weeks 6 days by gestational age and maternal race and ethnicity in the us, 2014 to 2020
Kartik K Venkatesh, Courtney D Lynch, Maged M Costantine, et al. JAMA.

The authors describe a serial cross-sectional descriptive study investigating the frequency of active treatment among live-born periviable infants 22 0/7 to 25 6/7 weeks gestation. The study used National Center for Health Statistics natality data from 2014 to 2020 including 61,908 singleton live periviable births (22 0/7 to 25 6/7 weeks) in the USA and breaks down the births by gestational age. The results showed that 52% of these neonates received active treatment. Neonates born to Asian/Pacific Islanders, black and Hispanic individuals were significantly less likely to receive treatment compared to white individuals. The study concluded that during the study timeframe (2014-2020), the frequency of active treatment among liveborn periviable infants (defined above) significantly increased, and there were differences in rates of active treatment by race and ethnicity.

Early enteral feeding for preterm or low birth weight infants: a systematic review and meta-analysis
Ramaa Chitale, Kacey Ferguson, Megan Talej, et al. Pediatrics.

This meta-analysis of fourteen randomized controlled trials with 1505 participants compares early (<72hours) to delayed (≥72 hours) enteral feeding initiation. Early initiation decreased mortality at discharge as well as 28 days and duration of hospitalization. Level of evidence for this determination was moderately certain evidence. It was also found that early initiation had little impact on necrotizing enterocolitis, intraventricular hemorrhage, feeding intolerance, time to regain birth weight, head circumference, and length at discharge, although the evidence was generally very uncertain for these outcomes. This evidence comes from studies of hospitalized newborns and adds to evidence supporting early breastfeeding initiation for preterm and LBW infants.

Discipline-specific perspectives on caring for babies with trisomy 13 or 18 in the neonatal intensive care unit
Nicholas Torbert, Marie Neumann, Nicole Birge, et al. Am J Perinatol.

This descriptive study describes the perspectives of NICU nurses, advanced practice practitioners, and neonatologists in caring for babies with trisomy 13 or 18 to assess for shared or divergent viewpoints and to elicit narrative understanding according to care discipline. Over half of all respondents perceived care for babies with trisomy 13 or 18 differs than care for other babies with chronic and critical illness. They identified common themes of internal conflict, presentation & prognosis, grappling with uncertainty and family experiences. The paper highlights differences between physician, APPs and nurses.

A hydrogen-sulfide derivative of mesalamine reduces severity of intestinal and lung injury in necrotizing enterocolitis via endothelial nitric oxide synthase
Brian D Hosfield, Chelsea E Hunter, Hongge Li, et al. Am J Physiol Regul Integr Comp Physiol.

Necrotizing enterocolitis (NEC) remains a devastating disease that affects preterm infants and hydrogen sulfide (H2S) donors have been shown to reduce the severity of NEC. NEC was induced in five-day-old wild-type (WT) and eNOS knockout (eNOSKO) pups by formula feeding and stress. Four groups were studied in both WT and eNOSKO mice: (1) breastfed controls, (2) NEC, (3) NEC + 50 mg/kg Mesalamine, (4) NEC + 130 mg/kg ATB-429. For the WT groups, ATB-429 significantly improved weight gain, reduced clinical sickness score, and improved perfusion compared to the NEC group. An H2S-derivative of mesalamine improves outcomes in experimental NEC. Protective effects appear to be mediated through eNOS.

Neonatal outcomes for women at risk of preterm delivery given half dose versus full dose of antenatal betamethasone: a randomised, multicentre, double-blind, placebo-controlled, non-inferiority trial
Thomas Schmitz, Muriel Doret-Dion, Loic Sentilhes, et al. Lancet

This study is a randomized, multicenter, double-blind, placebo-controlled, non-inferiority trial, conducted in 37 referral level 3 perinatal centers in France. Eligible participants were pregnant women aged 18 years or older with a singleton fetus at risk of preterm delivery and already treated with the first injection of antenatal betamethasone (11·4 mg) before 32 weeks' gestation. Women were randomly assigned to receive either a placebo (half-dose group) or a second 11·4 mg betamethasone injection (full-dose group) 24 h later. 3141 neonates were analyzed and the primary outcome was the need for exogenous intratracheal surfactant within 48 h after birth. Non-inferiority of the half-dose compared with the full-dose regimen was not shown, their results do not support practice changes towards antenatal betamethasone dose reduction.

Sensory-based interventions in the NICU: systematic review of effects on preterm brain development
Mercedes I Beltrán, Jeroen Dudink, Tamara M de Jong, et al. Pediatr Res.

Infants born preterm are known to be at risk for abnormal brain development and adverse neurobehavioral outcomes. To improve early neurodevelopment, several non-pharmacological interventions have been developed and implemented in the neonatal intensive care unit (NICU). The authors conducted a systematic review of published studies in the past 20 years reporting the effects of early, non-pharmacological, sensory-based interventions on the neonatal brain after preterm birth. They found that diversity in interventions and outcome measures challenges the possibility to perform an integrative synthesis of results and to translate these for evidence-based clinical practice.

The DELUX study: development of lung volumes during extubation of preterm infants
Leonie Plastina, Vincent D Gaertner, Andreas D Waldmann, et al. Pediatr Res.

In this prospective observational study in preterm infants born at 26-32 weeks gestation being extubated to non-invasive respiratory support, the authors measured changes in end-expiratory lung impedance as a marker of functional residual capacity during the entire extubation procedure. They found that the extubation procedure significantly affects functional residual capacity with a loss of approximately 10 ml/kg at the time of extubation. Removal of adhesive tape is the major contributing factor to FRC loss during the extubation procedure. Functional residual capacity is regained within the first breaths after initiation of non-invasive ventilation and is further increased after turning the infant into the prone position.

OTHER NOTEWORTHY PUBLICATIONS – August, 2022

COVID-19
Preterm singleton birth rate during the COVID-19 lockdown: a population-based study
https://pubmed.ncbi.nlm.nih.gov/34891197
Risk of preterm birth, small for gestational age at birth, and stillbirth after covid-19 vaccination during pregnancy: population based retrospective cohort study (PDF)
https://www.bmj.com/content/bmj/378/bmj-2022-071416.full.pdf
Maternal and neonatal severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) immunoglobulin G Levels after the pfizer-biontech booster dose for coronavirus disease 2019 (COVID-19) vaccination during the second trimester of pregnancy
https://pubmed.ncbi.nlm.nih.gov/35852268/

Pediatrics
Variation and temporal trends in delivery room management of moderate and late preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35851607

Peer learning and mentorship for neonatal management skills: a cluster-randomized trial
https://www.ncbi.nlm.nih.gov/pubmed/35794462
Emerging concepts in congenital cytomegalovirus
https://www.ncbi.nlm.nih.gov/pubmed/35909155
Introduction to evidence for global health care interventions for preterm or low birth weight infants
https://www.ncbi.nlm.nih.gov/pubmed/35921667
Evidence for global health care interventions for preterm or low birth weight infants: an overview of systematic reviews
https://www.ncbi.nlm.nih.gov/pubmed/35921677
Mother's own milk compared with formula milk for feeding preterm or low birth weight infants: systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921674
Early enteral feeding for preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921673
Responsive feeding for preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921679
Fast feed advancement for preterm and low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921676
Duration of exclusive breastfeeding for preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921669
Enteral iron supplementation in preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921671
Enteral zinc supplementation in preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921675
Enteral vitamin d supplementation in preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921678
Enteral low-dose vitamin a supplementation in preterm or low birth weight infants to prevent morbidity and mortality: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921666
Enteral calcium or phosphorus supplementation in preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921668
Enteral multiple micronutrient supplementation in preterm and low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921670
Family involvement in the routine care of hospitalized preterm or low birth weight infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35921672

Journal of Pediatrics
Early childhood neurodevelopmental outcomes in children with prenatal Zika virus exposure: a cohort study in Puerto Rico
https://pubmed.ncbi.nlm.nih.gov/35577118
Oxygenation factors associated with retinopathy of prematurity in infants of extremely low birth weight
https://pubmed.ncbi.nlm.nih.gov/35427689
Noninvasive neurally adjusted ventilation in postextubation stabilization of preterm infants: a randomized controlled study
https://pubmed.ncbi.nlm.nih.gov/35460702

Neurodevelopmental outcomes of infants at <29 weeks of gestation born in Canada between 2009 and 2016
https://pubmed.ncbi.nlm.nih.gov/35561804
Use of a quality scorecard to enhance quality and safety in community hospital newborn nurseries
https://pubmed.ncbi.nlm.nih.gov/35358590
Iron status in very preterm infants receiving prophylactic iron supplementation after birth
https://pubmed.ncbi.nlm.nih.gov/35577120
Infant outcomes among teenage and young mothers: racial inequities and the role of educational attainment
https://pubmed.ncbi.nlm.nih.gov/35364098
Perinatal outcomes of fetuses and infants diagnosed with trisomy 13 or trisomy 18
https://pubmed.ncbi.nlm.nih.gov/35452657
Acute necrotizing encephalopathy associated with coronavirus disease 2019 in an infant
https://pubmed.ncbi.nlm.nih.gov/35447125

Pediatric Research
Combined hypothermia and mesenchymal stem cells in animal models of neonatal hypoxic–ischaemic encephalopathy: a systematic review
https://pubmed.ncbi.nlm.nih.gov/34482377/
The impact of perinatal inflammation on the electroencephalogram in preterm infants: a systematic review
https://pubmed.ncbi.nlm.nih.gov/35365760/
Click-evoked auditory brainstem responses and autism spectrum disorder: a meta-analytic investigation of disorder specificity
https://pubmed.ncbi.nlm.nih.gov/34497358/
Sensory-based interventions in the NICU: systematic review of effects on preterm brain development
https://pubmed.ncbi.nlm.nih.gov/34508227/
Nanomedicine and graphene-based materials: advanced technologies for potential treatments of diseases in the developing nervous system
https://pubmed.ncbi.nlm.nih.gov/34480086/
Maternal early exposure to violence, psychopathology, and child adaptive functioning: pre- and postnatal programming
https://pubmed.ncbi.nlm.nih.gov/35250026/
Neonatal intermittent hypoxia, fish oil, and/or antioxidant supplementation on gut microbiota in neonatal rats
https://pubmed.ncbi.nlm.nih.gov/34455420/
A novel surgical toxicological-free model of diaphragmatic hernia in fetal rats
https://pubmed.ncbi.nlm.nih.gov/34465875/
Butyrate supplementation to pregnant mice elicits cytoprotection against colonic injury in the offspring
https://pubmed.ncbi.nlm.nih.gov/34616000/
Clinical determinants of cerebrovascular reactivity in very preterm infants during the transitional period
https://pubmed.ncbi.nlm.nih.gov/35513715/
The bacterial gut microbiome of probiotic-treated very-preterm infants: changes from admission to discharge
https://pubmed.ncbi.nlm.nih.gov/34621029/
Gestational age, sex, and time affect urine biomarker concentrations in extremely low gestational age neonates
https://pubmed.ncbi.nlm.nih.gov/34845352/
Effects of neurodevelopmental risk factors on brainstem maturation in premature infants
https://pubmed.ncbi.nlm.nih.gov/34789841/
Mammillary body injury in neonatal encephalopathy: a multicentre, retrospective study
https://pubmed.ncbi.nlm.nih.gov/33654286/

Elevated serum IL-10 is associated with severity of neonatal encephalopathy and adverse early childhood outcomes
https://pubmed.ncbi.nlm.nih.gov/33674741/
Verification of immunology-related genetic associations in BPD supports ABCA3 and five other genes
https://pubmed.ncbi.nlm.nih.gov/34465876/
Preterm birth and subsequent timing of pubertal growth, menarche, and voice break
https://pubmed.ncbi.nlm.nih.gov/34429512/
Post-hemorrhagic ventricular dilatation affects white matter maturation in extremely preterm infants
https://pubmed.ncbi.nlm.nih.gov/34446847/
Distinct cord blood C-peptide, adipokine, and lipidomic signatures by in utero HIV exposure
https://pubmed.ncbi.nlm.nih.gov/34446848/
The DELUX study: development of lung volumes during extubation of preterm infants
https://pubmed.ncbi.nlm.nih.gov/34465873/
Pharmacometric approach to assist dosage regimen design in neonates undergoing therapeutic hypothermia
https://pubmed.ncbi.nlm.nih.gov/34493833/
Prenatal docosahexaenoic acid effect on maternal-infant DHA-equilibrium and fetal neurodevelopment: a randomized clinical trial
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Recurrent acute kidney injury in preterm neonates is common and associated with worse outcomes and higher mortality
https://pubmed.ncbi.nlm.nih.gov/34593979/
Prenatal alcohol exposure and adverse fetal growth restriction: findings from the Japan Environment and Children's Study
https://pubmed.ncbi.nlm.nih.gov/34088984/
Magnetic resonance spectroscopy brain metabolites at term and 3-year neurodevelopmental outcomes in very preterm infants
https://pubmed.ncbi.nlm.nih.gov/33654289/
Endogenous erythropoietin at birth is associated with neurodevelopmental morbidity in early childhood
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Review: Sex differences in preterm nutrition and growth: the evidence from human milk associated studies
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In the grey zone—survival and morbidities of periviable births
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Postnatal maximal weight loss, fluid administration, and outcomes in extremely preterm newborns
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Opioid exposure during therapeutic hypothermia and short-term outcomes in neonatal encephalopathy
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Rates of substance and polysubstance use through universal maternal testing at the time of delivery
https://pubmed.ncbi.nlm.nih.gov/35177791/
Trends in the severity of opioid use disorder during pregnancy over time
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Neonatal abstinence syndrome: Effectiveness of targeted umbilical cord drug screening
https://pubmed.ncbi.nlm.nih.gov/35810246/

Neonatal abstinence syndrome and mother's own milk at discharge
https://pubmed.ncbi.nlm.nih.gov/35725804/
Assessment of the relative clinical utility of shortened Finnegan neonatal abstinence scoring tools
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Carbohydrate content of human milk is affected by seasonal variations: a retrospective observational study
https://pubmed.ncbi.nlm.nih.gov/35440713/
Early high amino-acid intake is associated with hypophosphatemia in preterm infants
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Effect of an exclusive human milk diet on feeding tolerance in preterm infants
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Barriers to optimal breast milk provision in the neonatal intensive care unit
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What are LGBTQI+ parental experiences of healthcare support and decision-making regarding infant feeding options? A grounded theory study
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Antenatal maternal hypoglycemia in women with gestational diabetes mellitus and neonatal outcomes
https://pubmed.ncbi.nlm.nih.gov/35194160/
Implementation and outcomes of a standard dose dextrose gel protocol for management of transient neonatal hypoglycemia
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Impact and interactions between risk factors on the iron status of at-risk neonates
https://pubmed.ncbi.nlm.nih.gov/35132153/
Implementation of a pilot electronic parent support tool in and after neonatal intensive care unit discharge
https://pubmed.ncbi.nlm.nih.gov/35132150/
A quality improvement initiative to reduce acid-suppressing medication exposure in the NICU
https://pubmed.ncbi.nlm.nih.gov/34728823/
Increasing early exposure to mother's own milk in premature newborns
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Neonatology
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American Journal of Perinatology
The trend of urinary N terminal probrain natriuretic peptide in extremely low birth weight infants during the neonatal period
https://pubmed.ncbi.nlm.nih.gov/34753181
Racial and ethnic disparities in maternal and neonatal outcomes among women with chronic hypertension
https://pubmed.ncbi.nlm.nih.gov/35045577
Timing of antenatal steroid administration and effects on the newborn infant: a retrospective study
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Discipline-specific perspectives on caring for babies with trisomy 13 or 18 in the neonatal intensive care unit
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Early troponin I levels in newborns undergoing therapeutic hypothermia for hypoxic ischemic encephalopathy and residual encephalopathy at discharge
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Mechanism of lncRNA H19 in regulating pulmonary injury in hyperoxia-induced bronchopulmonary dysplasia newborn mice
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Zinc supplementation in preterm neonates with late-onset sepsis: is it beneficial?

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A prediction model for positive infant meconium and urine drug tests
https://pubmed.ncbi.nlm.nih.gov/33336348
Relation between maternal and neonatal serum lipid profile and their impact on birth weight
https://pubmed.ncbi.nlm.nih.gov/33321526
Risk perception and decision making about early-onset sepsis among neonatologists: a national survey
https://pubmed.ncbi.nlm.nih.gov/33341925
Intrapartum basal ganglia–thalamic pattern injury and radiologically termed “acute profound hypoxic–ischemic brain injury” are not synonymous
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How helpful is aEEG? Context and user experience matter
https://pubmed.ncbi.nlm.nih.gov/33321530
Is maternal methadone dose associated with the severity of neonatal abstinence syndrome?
https://pubmed.ncbi.nlm.nih.gov/33321531
Antenatal corticosteroids decrease the risk of composite neonatal respiratory morbidity in planned early term cesarean deliveries
https://pubmed.ncbi.nlm.nih.gov/34670323
Association between hypertensive disorders of pregnancy and long-term neurodevelopmental outcomes in the offspring
https://pubmed.ncbi.nlm.nih.gov/34753185
The relationship between serum total bilirubin and severity of hypoxic injury in neonatal hypoxic–ischemic encephalopathy
https://pubmed.ncbi.nlm.nih.gov/33091943
Birth weight standard deviation score is a significant determinant of serum urotensin-II levels at term-equivalent age in preterm infants
https://pubmed.ncbi.nlm.nih.gov/33242908
Leukopenia and neutropenia at birth and sepsis in preterm neonates of <32 weeks' gestation
https://pubmed.ncbi.nlm.nih.gov/33231269
Accuracy and reliability of lung ultrasound to diagnose transient tachypnoea of the newborn: evidence from a meta-analysis and systematic review
https://pubmed.ncbi.nlm.nih.gov/33242910
Hepatitis B vaccination of low birth weight infants in Washington State
https://pubmed.ncbi.nlm.nih.gov/33254241
Gestational age dependency of umbilical cord serum IL-6 levels for detecting fetal inflammation
https://pubmed.ncbi.nlm.nih.gov/33242909
A retrospective analysis of the effects of an exclusively human milk protein diet on neonatal feeding tolerance
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Nebulization of high-dose poractant alfa in newborn piglets on nasal continuous positive airway pressure yields therapeutic lung doses of phospholipids
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Proficiency of laryngeal mask airway insertion skill in NRP certified providers
https://pubmed.ncbi.nlm.nih.gov/33249550
Epidemiological investigation on the current practice of umbilical cord clamping in China
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Maternal Health, Neonatology and Perinatology
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Neoreviews

Hypertriglyceridemia in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35909103
Postdischarge nutrition in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35909107
Evolution of preterm infant nutrition from breastfeeding to an exclusive human milk diet: a review
https://www.ncbi.nlm.nih.gov/pubmed/35909104
A newborn infant with hand nodule following intravenous extravasation
https://www.ncbi.nlm.nih.gov/pubmed/35909102
A male infant with encephalopathy, cataract, and immune dysfunction
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A term infant with encephalopathy and severe leukocytosis
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Post-intubation respiratory failure in an infant with multiple congenital anomalies
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Fetal disseminated malignant rhabdoid tumor
https://www.ncbi.nlm.nih.gov/pubmed/35909108

JAMA Pediatrics

Presepsin for the diagnosis of neonatal early-onset sepsis: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35639395
Global, regional, and national incidence and mortality of neonatal preterm birth, 1990-2019
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BMC Pediatrics

Relationship of caffeine regimen with osteopenia of prematurity in preterm neonates: a cohort retrospective study (PDF)
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A new approach to skin extravasation injury management during the neonatal period (PDF)
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Clinical characteristics of hospitalized term and preterm infants with community-acquired viral pneumonia (PDF)
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The variation of antenatal corticosteroids administration for the singleton preterm birth in China, 2017 to 2018 (PDF)
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What is the postoperative nutrition intake in children with congenital heart disease? A single-center analysis in China (PDF)
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Parent-therapist partnership to ELEVATE gross motor function in children with perinatal stroke: protocol for a mixed methods randomized controlled trial (PDF)
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A fatal neonatal case of fungemia due to Exophiala dermatitidis—case report and literature review (PDF)
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Large scale application of pulse oximeter and auscultation in screening of neonatal congenital heart disease (PDF)
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Interpretation of white blood cell counts in the cerebrospinal fluid of neonates with traumatic lumbar puncture: a retrospective cohort study (PDF)
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Morbidity and psychomotor development of offspring of women with gestational diabetes: a 5-year follow-up (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-022-03543-4.pdf
Spatial distribution and determinants of newborns not receiving postnatal check-up within two days after birth in Ethiopia: a spatial and multilevel analysis of EDHS 2016 (PDF)
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The difference of gut microbiome in different biliary diseases in infant before operation and the changes after operation (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-022-03570-1.pdf
Assessing whether genetic scores explain extra variation in birthweight, when added to clinical and anthropometric measures (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-022-03554-1.pdf
A review of infant growth and psychomotor developmental outcomes after intrauterine exposure to preeclampsia (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-022-03542-5.pdf

Pediatric Critical Care Medicine
Peripheral vasoactive administration in critically ill children with shock: a single-center retrospective cohort study
https://pubmed.ncbi.nlm.nih.gov/35446810/
Peripheral and central/intraosseous vasoactive infusions during and after pediatric critical care transport: retrospective cohort study of extravasation injury
https://pubmed.ncbi.nlm.nih.gov/35481954/
Association of pathogen type with outcomes of children encountering community-acquired pediatric septic shock
https://pubmed.ncbi.nlm.nih.gov/35687094/

New England Journal of Medicine
Spina bifida
https://pubmed.ncbi.nlm.nih.gov/35921452/

Lancet

Antenatal betamethasone regimen for women at risk of preterm birth
https://pubmed.ncbi.nlm.nih.gov/35988553/
Neonatal outcomes for women at risk of preterm delivery given half dose versus full dose of antenatal betamethasone: a randomised, multicentre, double-blind, placebo-controlled, non-inferiority trial
https://pubmed.ncbi.nlm.nih.gov/35988568/

JAMA

Trends in active treatment of live-born neonates between 22 weeks 0 days and 25 weeks 6 days by gestational age and maternal race and ethnicity in the us, 2014 to 2020
https://pubmed.ncbi.nlm.nih.gov/35972487/
Active treatment and shared decision-making for infants born extremely preterm at 22 to 25 weeks
https://pubmed.ncbi.nlm.nih.gov/35972504/

BMJ

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Pediatric Infectious Disease Journal

Annual trend in lumbar puncture for infants younger than 3 months hospitalized with suspected serious bacterial infection: a nationwide inpatient database study
https://pubmed.ncbi.nlm.nih.gov/35544737/
A longitudinal study of spontaneous gut decolonization of carbapenem-resistant gram-negative bacteria in neonatal and pediatric patients
https://pubmed.ncbi.nlm.nih.gov/35446811/

Pediatric Cardiology

Developmental differences in left ventricular strain in IUGR vs. control children the first three months of life
https://pubmed.ncbi.nlm.nih.gov/35333947
Antiarrhythmic medication in neonates and infants with supraventricular tachycardia
https://pubmed.ncbi.nlm.nih.gov/35258638
The impact of dexmedetomidine initiation on cardiovascular status and oxygenation in critically ill neonates
https://pubmed.ncbi.nlm.nih.gov/35212773
Right ventricular function in neonates during early postnatal period: a prospective observational study
https://pubmed.ncbi.nlm.nih.gov/35229170
Utility of screening fetal echocardiogram following normal anatomy ultrasound for in vitro fertilization pregnancies
https://pubmed.ncbi.nlm.nih.gov/35218394
Providers' attitudes to proposed changes in the critical congenital heart disease screening algorithm
https://pubmed.ncbi.nlm.nih.gov/35244731
Hemodynamic assessment of a large pulmonary arteriovenous malformation in a neonate: case report and review of literature
https://pubmed.ncbi.nlm.nih.gov/35260923

Pediatric Neurology

Aberrant white matter organization correlated with neurodevelopment outcomes in tetralogy of fallot: an atlas-based diffusion tensor imaging study
https://pubmed.ncbi.nlm.nih.gov/35749819
Genetic testing and hospital length of stay in neonates with epilepsy
https://pubmed.ncbi.nlm.nih.gov/35751960

Influence of gestational diabetes and pregestational maternal BMI on the brain of six-year-old offspring
https://pubmed.ncbi.nlm.nih.gov/35759804

Obstetrics and Gynecology
See COVID section

American Journal of Obstetrics & Gynecology
Vanquishing multiple pregnancy in in vitro fertilization in the United States—a 25-year endeavor
https://pubmed.ncbi.nlm.nih.gov/35150636/
Telomeres, oxidative stress, and timing for spontaneous term and preterm labor
https://pubmed.ncbi.nlm.nih.gov/35460626/
Comparative efficacy and safety of pharmacologic interventions to prevent mother-to-child transmission of hepatitis B virus: a systematic review and network meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35263648/
Timing of birth and adverse pregnancy outcomes in cases of prenatally diagnosed vasa previa: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35283090/
Planned delivery or expectant management in preeclampsia: an individual participant data meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35487323/
Accurate identification of cohort study designs in perinatal research: a practical guide
https://pubmed.ncbi.nlm.nih.gov/35288086/
Cell-free DNA screening for trisomies 21, 18, and 13 in pregnancies at low and high risk for aneuploidy with genetic confirmation
https://pubmed.ncbi.nlm.nih.gov/35085538/
Prenatal exposure to teratogenic medications in the era of Risk Evaluation and Mitigation Strategies
https://pubmed.ncbi.nlm.nih.gov/35032444/
The association of fetal acidemia with adverse neonatal outcomes at time of scheduled cesarean delivery
https://pubmed.ncbi.nlm.nih.gov/35489441/
The impact of the antenatal late preterm steroids trial on the administration of antenatal corticosteroids
https://pubmed.ncbi.nlm.nih.gov/35341727/
Brainstem and cerebellar volumes at magnetic resonance imaging are smaller in fetuses with congenital heart disease
https://pubmed.ncbi.nlm.nih.gov/35305961/
Doppler velocimetry discordance between paired umbilical artery vessels and clinical implications in fetal growth restriction
https://pubmed.ncbi.nlm.nih.gov/35307395/
Chorioamnionitis and risk of long-term neurodevelopmental disorders in offspring: a population-based cohort study
https://pubmed.ncbi.nlm.nih.gov/35305960/
Individualized treatment of preterm premature rupture of membranes to prolong the latency period, reduce the rate of preterm birth, and improve neonatal outcomes
https://pubmed.ncbi.nlm.nih.gov/35257664/
Fetal echocardiographic features of absent pulmonary valve syndrome
https://pubmed.ncbi.nlm.nih.gov/35216967/
Mechanism of neonatal hypoglycemia after late preterm steroids: are fetal metabolic effects responsible
https://pubmed.ncbi.nlm.nih.gov/35364060/
Are increased fetal movements during pregnancy a predictor of neonatal adverse outcomes?
https://pubmed.ncbi.nlm.nih.gov/35487329/

Hospital Pediatrics

Promoting health equity through family-centered social needs screening and intervention in the inpatient setting
https://pubmed.ncbi.nlm.nih.gov/35843956/

BASIC SCIENCE SELECTIONS

The CD146-HIF-1alpha axis regulates epithelial cell migration and alveolar maturation in a mouse model of bronchopulmonary dysplasia
Rui Jin, Qianqian Gao, Chunyu Yin, et al. Lab Invest.
https://www.ncbi.nlm.nih.gov/pubmed/35306530

Human breast milk-derived exosomes through inhibiting AT II cell apoptosis to prevent bronchopulmonary dysplasia in rat lung
Yahui Zhou, Yiwen Liu, Gen Xu, et al. J Cell Mol Med.
https://www.ncbi.nlm.nih.gov/pubmed/35833257

A hydrogen-sulfide derivative of mesalamine reduces severity of intestinal and lung injury in necrotizing enterocolitis via endothelial nitric oxide synthase
Brian D Hosfield, Chelsea E Hunter, Hongge Li, et al. Am J Physiol Regul Integr Comp Physiol.
https://www.ncbi.nlm.nih.gov/pubmed/35912999

Mesenchymal stem cell-derived extracellular vesicles prevent experimental bronchopulmonary dysplasia complicated by pulmonary hypertension
Mayank Sharma, Michael A Bellio, Merline Benny, et al. Stem Cells Transl Med.
https://www.ncbi.nlm.nih.gov/pubmed/35758326

Efficacy of probiotic consortium transplantation on experimental necrotizing enterocolitis
Bing Tian, Yunfei Zhang, Chun Deng, et al. J Surg Res.
https://www.ncbi.nlm.nih.gov/pubmed/35926310

How does human milk protect against necrotizing enterocolitis (NEC)? targeted validation and time-course analysis of 35 gene responses as NEC-signature in fetal intestinal epithelial cells
Chalonerat Tongviratskool, Nutkridta Pongsakul, Pasinee Kanaprach, et al. OMICS.
https://www.ncbi.nlm.nih.gov/pubmed/35900271

ADDITIONAL JOURNAL SELECTIONS

Association between duration of early empiric antibiotics and necrotizing enterocolitis and late-onset sepsis in preterm infants: a multicenter cohort study
Thomas H Dierikx, Nancy Deianova, Jip Groen et al. Eur J Pediatr.
https://www.ncbi.nlm.nih.gov/pubmed/35927379

Bronchopulmonary dysplasia and neurobehavioural outcomes at birth and 2 years in infants born before 30 weeks
Monika Martin, Lynne Smith, Julie A Hofheimer, et al. Arch Dis Child Fetal Neonatal Ed.
https://www.ncbi.nlm.nih.gov/pubmed/35999044

Lung ultrasound score has better diagnostic ability than NT-proBNP to predict moderate-severe bronchopulmonary dysplasia
Almudena Alonso-Ojembarrena, Paula Méndez-Abad, Paula Alonso-Quintela, et al. Eur J Pediatr.
https://www.ncbi.nlm.nih.gov/pubmed/35648231

Correlation between apelin and VEGF levels in retinopathy of prematurity: a matched case-control study
Yimin Zhang, Jing Feng, Shuming Shao, et al. BMC Ophthalmol.

https://www.ncbi.nlm.nih.gov/pubmed/35953806

Detection of global brain injury in premature neonates using novel point of care neonatal MRI scanner
Alona Bin Nun, Yair Kasirer, Nadeen Abu Ata, et al. Neuropediatrics.
https://www.ncbi.nlm.nih.gov/pubmed/35977705

Feasibility and acceptability of a diagnostic randomized clinical trial of bowel ultrasound in infants with suspected necrotizing enterocolitis
Alain Cuna, Sherwin Chan, Jill Jones, et al. Eur J Pediatr.
https://www.ncbi.nlm.nih.gov/pubmed/35713688

Periventricular hemorrhagic infarction (PVHI) associated with intraventricular hemorrhage (IVH) in premature infants: Outcome at 2 years of age
A Navidi, P De Boissieu, I Mannes, et al. Arch Pediatr.
https://www.ncbi.nlm.nih.gov/pubmed/35667999

Renal function after transcatheter piccolo patent ductus arteriosus closure with contrast angiography in extremely premature infants
Christopher Herron, Thomas J Forbes and Daisuke Kobayashi. Am J Cardiol.
https://www.ncbi.nlm.nih.gov/pubmed/35970628