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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – September 2022

Clinical practice guideline revision: management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation
Alex R Kemper, Thomas B Newman, Jonathan L Slaughter, et al. *Pediatrics.*

This clinical practice guideline updates and replaces the 2004 AAP clinical practice guideline for the management and prevention of hyperbilirubinemia in the newborn infant 35 or more weeks gestation. Updates include new treatment threshold curves, screening of DAT positive infants, transcutaneous bilirubin evaluation (including post-phototherapy), evaluation of infants requiring phototherapy, length of phototherapy, and timing of bilirubin rebound evaluation and follow-up.

Two-year neurodevelopmental outcome in children born extremely preterm: the EPI-DAF study
Pauline E van Beek, Monique Rijken, Lisa Broeders, et al. *Arch Dis Child Fetal Neonatal Ed.*

The nationwide Extremely Preterm Infants – Dutch Analysis on Follow-up Study reports two-year neurodevelopmental outcomes after the Dutch practice regarding initiation of active treatment in extremely preterm infants was lowered from 25 completed weeks to 24 completed weeks gestation in 2010. This study included all Dutch live-born infants, born between 24 0/7 weeks and 26 6/7 weeks GA, who were 2 years corrected age (CA) in 2018–2020. 651 of 991 live born infants (66%) survived to 2 years' CA and overall, 62% had no impairment, 29% mild impairment and 9% moderate-to-severe impairment (NDI). While there were differences in survival, the percentage of surviving children with NDI was comparable between 24 weeks, 25 weeks and 26 weeks gestation (around 9%). NDI-free survival was 48%, 67% and 75% in NICU-admitted infants at 24 weeks, 25 weeks and 26 weeks gestation, respectively. After multivariable analysis, severe brain injury and low maternal education were associated with higher odds of NDI.

Blood pressure, organ dysfunction, and mortality in preterm neonates with late-onset sepsis
Faith Zhu, Michelle Baczynski, Ashraf Kharrat, et al. *Pediatr Res.*

This two-center retrospective study over 6 years examined 147 neonates <35 weeks gestational age to investigate the association between systolic, diastolic, and mean blood pressures (SBP, DBP, and MBP) and adverse outcomes with late-onset sepsis (LOS) in this population. Outcome measures were organ dysfunction (ODF) using the predefined criteria and post-ODF mortality (≤7 days from LOS onset). 147 neonates with blood ± cerebrospinal fluid culture positive for organisms other than coagulase-negative Staphylococcus at >72 h age were included for analyses. The mean GA and weight at birth and at LOS were 25.9 ± 1.9 and 829 ± 258 and 29.2 ± 3.6 weeks and 1045 ± 529 g, respectively. 70 (48%) neonates fulfilled the predecided criteria for ODF, of which 20 (29%) died. The median (interquartile range [IQR]) time to ODF from LOS onset was 3.4 (0.8, 9.5) h; 28 had ODF at presentation. ODF was more frequently associated with gram-negative bacteremia and meningitis. While baseline BPs were similar between

groups, the ODF group demonstrated significantly lower SBP, MBP, and DBP, starting within the first 12-h period after LOS onset ($p < 0.01$ for all). Mortality was associated with a greater reduction in SBP [−13 (−19, −8) vs. −4 (−8, 0); $p < 0.01$] and MBP [−9 (−13, −5) vs. +1 (−1, +4); $p = 0.03$] 0–12 h post-LOS onset.

The administration of amnion-derived multipotent cell secretome ST266 protects against necrotizing enterocolitis in mice and piglets
Chhinder P Sodhi, Raheel Ahmad, Hongpeng Jia, et al. *Am J Physiol Gastrointest Liver Physiol.*

This work reveals that the secreted product of amniotic progenitor cells (called ST266) can prevent or treat NEC in mice, piglet, and "NEC-in-a-dish" models of this disease. Mechanistically, ST266 prevented bacterial signaling, and a detailed transcriptomic analysis revealed effects on gut differentiation, immunity, and metabolism. Thus, an amniotic secretome may offer novel approaches for NEC.

The effects of caffeine following hypoxic-ischemic encephalopathy: A systematic review of animal Studies
Matteo Bruschettini, Alvaro Moreira, Ana Beatriz Pizarro, et al. *Brain Res.*

Seven studies met inclusion criteria for this systematic review with meta-analysis assessing the effects of caffeine on the prevention and treatment of neurological morbidity caused by hypoxic-ischemic encephalopathy (HIE) in preclinical studies. Caffeine had a positive effect on overall functional outcome (SDM 0.92(95%CI 0.25 to 1.59)). Animals treated with caffeine performed better on Morris water maze and rotarod tests (SDM -1.39(95%CI -0.36 to -2.41)) and (SDM 1.03(95%CI 0.03 to 2.04)), respectively. Caffeine treated animals performed worse on open field test compared to the controls (SDM -1.11(95%CI -3.01 to 0.80)). Early caffeine exposure in preclinical rodent models of HIE is associated with improved selective functional and neurological outcomes, although the certainty of the evidence is limited.

Routine use of cerebral magnetic resonance imaging in infants born extremely preterm
Julia Buchmayer, Gregor Kasprian, Vito Giordano, et al. *J Pediatr.*

The authors sought to describe cerebral abnormalities and their risk factors in a contemporary cohort of infants born extremely premature after the introduction of routine cerebral magnetic resonance imaging (cMRI) at term-equivalent age. After routine cMRI, without preconfirmed pathology by cranial ultrasonography, low-grade IVH, noncystic white matter disease, and cerebellar injuries were the most frequently found abnormalities. The clinical value and long-term benefit of the detection of these low-grade pathologies have yet to be confirmed.

The impact of mode of delivery on maternal and neonatal outcomes during periviable birth (22–25 weeks)
Jared T Roeckner, Erica Peterson, Jennifer Rizzo, et al. *Am J Perinatol.*

The authors conducted a retrospective cohort study of 230 periviable deliveries (22-25 weeks) from 2013 to 2020 at a tertiary teaching institution. Deliveries were grouped by the mode of delivery. They found that periviable birth has a high rate of maternal morbidity with a trend toward the highest risk among women undergoing cesarean delivery. Neonatal survival to discharge was not different between the groups and among the 172 neonates discharged alive, there was no difference in BPD, IVH, NEC, PDA, ROP, or intact survival.

Association of racial disparities with in-hospital outcomes in severe bronchopulmonary dysplasia
Tamorah R Lewis, Matthew J Kielt, Valencia P Walker, et al. *JAMA Pediatr.*

In a multicenter severe BPD cohort, study results suggest that infants born to Black mothers had increased likelihood of death and increased length of hospital stay compared with infants born to White mothers. Prospective studies are needed to define the sociodemographic mechanisms underlying disparate health outcomes for Black infants with severe BPD.

Umbilical cord blood culture in neonatal early-onset sepsis: a systematic review and meta-analysis
Thomas H Dierikx, Anton H L C van Kaam, Tim G J de Meij, et al. *Pediatr Res.*

This systematic review shows that, compared to Peripheral Blood Culture, Umbilical Cord Blood Culture has higher sensitivity and comparable specificity for clinical Early Onset Sepsis (EOS) and might be considered as diagnostic test for EOS. Due to the limited number of studies, low incidences of EOS cases, and the imperfect reference standards for EOS, results should be interpreted cautiously.

OTHER NOTEWORTHY PUBLICATIONS – September, 2022

COVID-19
Policy Statement: COVID-19 vaccines in infants, children, and adolescents
https://pubmed.ncbi.nlm.nih.gov/35716376
Safety of booster doses of coronavirus disease 2019 (COVID-19) vaccine in pregnancy in the vaccine adverse event reporting system
https://pubmed.ncbi.nlm.nih.gov/35926203/
Maternal COVID-19 infection and possible associated adverse neurological fetal outcomes, two case reports
https://pubmed.ncbi.nlm.nih.gov/34814196/
SARS-CoV-2 in infant urine and fecal samples after in utero COVID-19 exposure
https://pubmed.ncbi.nlm.nih.gov/34718351/
Effects of prenatal exposure to maternal COVID-19 and perinatal care on neonatal outcome: results from the INTERCOVID Multinational Cohort Study
https://pubmed.ncbi.nlm.nih.gov/35452653/
Increase in preterm stillbirths in association with reduction in iatrogenic preterm births during COVID-19 lockdown in Australia: a multicenter cohort study
https://pubmed.ncbi.nlm.nih.gov/35452655/
Maternal and neonatal outcomes of pregnancies with COVID-19 after medically assisted reproduction: results from the prospective COVID-19-Related Obstetrical and Neonatal Outcome Study
https://pubmed.ncbi.nlm.nih.gov/35452651/

Pediatrics
Neonatal outcomes of mothers with a disability
https://pubmed.ncbi.nlm.nih.gov/35934737
Racism and quality of neonatal intensive care: voices of black mothers
https://pubmed.ncbi.nlm.nih.gov/35965288
Outcomes after positive syphilis screening
https://pubmed.ncbi.nlm.nih.gov/36000336
Autism risk and perinatal antibiotic use
https://pubmed.ncbi.nlm.nih.gov/36017659
Clinical practice guideline revision: management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation
https://pubmed.ncbi.nlm.nih.gov/35927462
Technical report: diagnosis and management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation
https://pubmed.ncbi.nlm.nih.gov/35927519
Policy statement: scope of health care benefits for neonates, infants, children, adolescents, and young adults through age 26

https://pubmed.ncbi.nlm.nih.gov/36032024
Research brief: predicting the need for phototherapy after discharge: update for 2022 phototherapy guidelines
https://pubmed.ncbi.nlm.nih.gov/35927471
Research brief: race and ethnicity in neonatal group B streptococcal disease in England: 2016–2020
https://pubmed.ncbi.nlm.nih.gov/35979728
Review articles: supraglottic airways compared with face masks for neonatal resuscitation: a systematic review
https://pubmed.ncbi.nlm.nih.gov/35948789
State-of-the-art review: retinopathy of prematurity: a global perspective and recent developments
https://pubmed.ncbi.nlm.nih.gov/35948728
Quality Reports: Interdisciplinary quality improvement project increases vitamin D supplementation in infants
https://pubmed.ncbi.nlm.nih.gov/36039691
Case report: kidney replacement therapy in low birth weight preterm newborns
https://pubmed.ncbi.nlm.nih.gov/35945293

Journal of Pediatrics
Evidence-based genetic testing for individuals with congenital diaphragmatic hernia
https://pubmed.ncbi.nlm.nih.gov/35667445/
Disparities and early engagement associated with the 18- to 36-month high-risk infant follow-up visit among very low birthweight infants in California
https://pubmed.ncbi.nlm.nih.gov/35597303/
Severe anemia at birth—incidence and implications
https://pubmed.ncbi.nlm.nih.gov/35660494/
Prevalence and predictors of postpartum cosleeping practices after midwife-led births in the US
https://pubmed.ncbi.nlm.nih.gov/35660492/
Ventricular volume in infants born very preterm: relationship with brain maturation and neurodevelopment at age 4.5 years
https://pubmed.ncbi.nlm.nih.gov/35561806/
Cerebral sinus venous thrombosis in infants after surgery for congenital heart disease
https://pubmed.ncbi.nlm.nih.gov/35667448/
Routine use of cerebral magnetic resonance imaging in infants born extremely preterm
https://pubmed.ncbi.nlm.nih.gov/35738315/
Trametinib for refractory chylous effusions and systemic complications in children with noonan syndrome
https://pubmed.ncbi.nlm.nih.gov/35605646/
The genomics of congenital diaphragmatic hernia: a 10-year retrospective review
https://pubmed.ncbi.nlm.nih.gov/35430246/

Pediatric Research
Umbilical cord blood culture in neonatal early-onset sepsis: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/34711944/
Iron transport across the human placenta is regulated by hepcidin
https://pubmed.ncbi.nlm.nih.gov/33069164/
Severe intraventricular hemorrhage causes long-lasting structural damage in a preterm rabbit pup model
https://pubmed.ncbi.nlm.nih.gov/35505079/
Azithromycin reduces inflammation-amplified hypoxic–ischemic brain injury in neonatal rats
https://pubmed.ncbi.nlm.nih.gov/34625655/
Exposure to high levels of oxygen in neonatal rats induce a decrease in hemoglobin levels
https://pubmed.ncbi.nlm.nih.gov/34718354/
Glucocorticoids in a neonatal hyperoxic lung injury model: pulmonary and neurotoxic effects

https://pubmed.ncbi.nlm.nih.gov/34725500/
Splanchnic oxygen saturation during reoxygenation with 21% or 100% O2 in newborn piglets
https://pubmed.ncbi.nlm.nih.gov/34725499/
Irradiance footprint of phototherapy devices: a comparative study
https://pubmed.ncbi.nlm.nih.gov/34728809/
Neonatal encephalopathy plasma metabolites are associated with neurodevelopmental outcomes
https://pubmed.ncbi.nlm.nih.gov/34621028/
Language function following preterm birth: prediction using machine learning
https://pubmed.ncbi.nlm.nih.gov/34635792/
Newborn screen metabolic panels reflect the impact of common disorders of pregnancy
https://pubmed.ncbi.nlm.nih.gov/34671094/
Blood pressure, organ dysfunction, and mortality in preterm neonates with late-onset sepsis
https://pubmed.ncbi.nlm.nih.gov/34671093/
Long-term cognitive outcomes in term newborns with watershed injury caused by neonatal encephalopathy
https://pubmed.ncbi.nlm.nih.gov/34702974/
Ventilatory control instability as a predictor of persistent periodic breathing in preterm infants
https://pubmed.ncbi.nlm.nih.gov/34716421/
Anti-reflux medication use in preterm infants
https://pubmed.ncbi.nlm.nih.gov/34716422/
Preterm birth and Kawasaki disease: a nationwide Japanese population-based study
https://pubmed.ncbi.nlm.nih.gov/34625654/
Sports participation and preterm birth: a nationwide birth cohort in Japan
https://pubmed.ncbi.nlm.nih.gov/34707251/

Archives of Disease in Childhood - Fetal & Neonatal Edition
Neonatal and fetal therapy of congenital diaphragmatic hernia-related pulmonary hypertension
https://www.ncbi.nlm.nih.gov/pubmed/34952853
Two-year neurodevelopmental outcome in children born extremely preterm: the EPI-DAF study
https://www.ncbi.nlm.nih.gov/pubmed/35236745
Dual-site blood culture yield and time to positivity in neonatal late-onset sepsis
https://www.ncbi.nlm.nih.gov/pubmed/34753783
Impact of maternal obesity on neonatal heart rate and cardiac size
https://www.ncbi.nlm.nih.gov/pubmed/34789488
Single versus continuous sustained inflations during chest compressions and physiological-based cord clamping in asystolic lambs
https://www.ncbi.nlm.nih.gov/pubmed/34844983
Parental perspective on important health outcomes of extremely preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/34815239
Effect of prophylactic dextrose gel on the neonatal gut microbiome
https://www.ncbi.nlm.nih.gov/pubmed/34857640
Effects of tactile stimulation on spontaneous breathing during face mask ventilation
https://www.ncbi.nlm.nih.gov/pubmed/34862191
Global incidence proportion of intraventricular haemorrhage of prematurity: a meta-analysis of studies published 2010–2020
https://www.ncbi.nlm.nih.gov/pubmed/34930831
MRI-based brain volumes of preterm infants at term: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/35078779
Severe neonatal hyperbilirubinaemia: lessons learnt from a national perinatal audit
https://www.ncbi.nlm.nih.gov/pubmed/35091450
Associations of body composition with regional brain volumes and white matter microstructure in very preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35058276

Preliminary study of automated oxygen titration at birth for preterm infant
https://www.ncbi.nlm.nih.gov/pubmed/35140115
Predictors of anastomotic strictures following œsophageal atresia repair
https://www.ncbi.nlm.nih.gov/pubmed/35217569
Lung volume distribution in preterm infants on non-invasive high-frequency ventilation
https://www.ncbi.nlm.nih.gov/pubmed/35101993
Saliva cortisol diurnal variation and stress responses in term and preterm infant
https://www.ncbi.nlm.nih.gov/pubmed/35256524

Journal of Perinatology
Hemodynamic consequences of respiratory interventions in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35690691
Short and long-term outcomes of children with autoimmune congenital heart block treated with a combined maternal-neonatal therapy. A comparison study
https://www.ncbi.nlm.nih.gov/pubmed/35717457
Blood pressure values and hypotension management in extremely preterm infants: a multi-center study
https://www.ncbi.nlm.nih.gov/pubmed/35715600
Lower pass threshold (≥93%) for critical congenital heart disease screening at high altitude prevents repeat screening and reduces false positives
https://www.ncbi.nlm.nih.gov/pubmed/35978107
Being small for gestational age is not an independent risk factor for mortality in neonates with congenital diaphragmatic hernia: a multicenter study
https://www.ncbi.nlm.nih.gov/pubmed/35449444
Improved survival for infants with severe congenital diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/35461332
Image-based prenatal predictors correlate with postnatal survival, extracorporeal life support use, and defect size in left congenital diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/35228684
Image-based prenatal predictors of postnatal survival, extracorporeal life support, and defect size in right congenital diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/35922665
Does videolaryngoscopy improve tracheal intubation first attempt success in the nicus? A report from the NEAR4NEOS
https://www.ncbi.nlm.nih.gov/pubmed/35922664
Association of multiple tracheal intubation attempts with clinical outcomes in extremely preterm infants: a retrospective single-center cohort study
https://www.ncbi.nlm.nih.gov/pubmed/35474128
Impact of multiple intubation attempts on adverse tracheal intubation associated events in neonates: a report from the NEAR4NEOS
https://www.ncbi.nlm.nih.gov/pubmed/35982243
Point of care lung ultrasound service in neonatal intensive care: Five years of experience in Manitoba, Canada
https://www.ncbi.nlm.nih.gov/pubmed/35831578
Pulmonary hemorrhage in extremely low birth weight infants: Significance of the size of left to right shunting through a valve incompetent patent foramen ovale
https://www.ncbi.nlm.nih.gov/pubmed/35851183
Evaluation of three non-invasive ventilation modes after extubation in the treatment of preterm infants with severe respiratory distress syndrome
https://www.ncbi.nlm.nih.gov/pubmed/35953535
Brief Communication: Chronic lung disease-related mortality in the US from 1999–2017: trends and racial disparities
https://www.ncbi.nlm.nih.gov/pubmed/35906284

Factors associated with discontinuation of pulmonary vasodilator therapy in children with bronchopulmonary dysplasia-associated pulmonary hypertension
https://www.ncbi.nlm.nih.gov/pubmed/35676536
Brief Communication: Prevention of bronchopulmonary dysplasia: a cross-sectional survey of clinical practices in Canada
https://www.ncbi.nlm.nih.gov/pubmed/35461331
Brief Communication: Pattern of postnatal steroid use for bronchopulmonary dysplasia in extremely preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/35264697
Improving management of ventilator associated tracheitis in a level IV NICU
https://www.ncbi.nlm.nih.gov/pubmed/35449445

Neonatology
No new content

American Journal of Perinatology
The impact of mode of delivery on maternal and neonatal outcomes during periviable birth (22–25 weeks)
https://pubmed.ncbi.nlm.nih.gov/35253122/
Antimicrobial prophylaxis use in the neonatal intensive care unit: an antimicrobial stewardship target that deserves attention!
https://pubmed.ncbi.nlm.nih.gov/33454950/
Does the head position affect neonatal lateral ventricular volume?
https://pubmed.ncbi.nlm.nih.gov/33374023/
Umbilical cord management in late preterm and term infants: a randomized controlled trial
https://pubmed.ncbi.nlm.nih.gov/33472241/
Nasal intermittent positive pressure ventilation versus continuous positive airway pressure and apnea of prematurity: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/33450781/
Role of cord blood carboxyhemoglobin in detecting significant hyperbilirubinemia in term neonates with abo alloimmunization
https://pubmed.ncbi.nlm.nih.gov/33395710/
Effectiveness of dual medication therapy (oral acetaminophen and oral ibuprofen) for the management of patent ductus arteriosus in extremely premature infants: a feasibility trial
https://pubmed.ncbi.nlm.nih.gov/33454945/
Antenatal steroids and acute kidney injury in preterm infants
https://pubmed.ncbi.nlm.nih.gov/33406538/
Isolated and on guard: preparing neonatal intensive care unit families for life with hydrocephalus
https://pubmed.ncbi.nlm.nih.gov/33454943/
Neurodevelopmental outcome in very low birth weight infants exposed to donor milk
https://pubmed.ncbi.nlm.nih.gov/33406537/
Frequency and severity of chlorothiazide-induced hyponatremia in the neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/33406536/
Prevalence, risk factors, and short-term outcomes of full-term low birth weight infants born at a tertiary academic center: a prospective case–control study
https://pubmed.ncbi.nlm.nih.gov/33406535/
Effect of hypothermia on serum myelin basic protein and tumor necrosis factor–α in neonatal hypoxic-ischemic encephalopathy
https://pubmed.ncbi.nlm.nih.gov/33454948/

Journal of Neonatal-Perinatal Medicine
No new content

Maternal Health, Neonatology and Perinatology

Case report of congenital methemoglobinemia: an uncommon cause of neonatal cyanosis (PDF)
https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-022-00142-0.pdf
Prenatal exposure to tobacco and adverse birth outcomes: effect modification by folate intake during pregnancy (PDF)
https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-022-00141-1.pdf
Nasolabial and distal limbs dry gangrene in newborn due to hypernatremic dehydration with disseminated intravascular coagulation: a case report (PDF)
https://mhnpjournal.biomedcentral.com/counter/pdf/10.1186/s40748-022-00140-2.pdf

Neoreviews

Neonatal conjunctivitis
https://pubmed.ncbi.nlm.nih.gov/36047752
Neonatal laryngotracheal anomalies
https://pubmed.ncbi.nlm.nih.gov/36047759
Use of albumin in the NICU: an evidence-based review
https://pubmed.ncbi.nlm.nih.gov/36047753
An uncommon diagnosis for diarrhea and failure to thrive in a 6-week-old infant
https://pubmed.ncbi.nlm.nih.gov/36047754
Unexpected MRI finding after whole body cooling for neonatal encephalopathy
https://pubmed.ncbi.nlm.nih.gov/36047751
A hypotonic neonate
https://pubmed.ncbi.nlm.nih.gov/36047756
Shoulder dystocia: neonatal implications
https://pubmed.ncbi.nlm.nih.gov/36047758
A neonatal abdominal wall defect
https://pubmed.ncbi.nlm.nih.gov/36047757
A neonate with unexpected external genitalia at birth
https://pubmed.ncbi.nlm.nih.gov/36047755

JAMA Pediatrics

Disparities in lung disease of prematurity—when does exposure to racism begin?
https://pubmed.ncbi.nlm.nih.gov/35913709/
Association of racial disparities with in-hospital outcomes in severe bronchopulmonary dysplasia
https://pubmed.ncbi.nlm.nih.gov/35913704/
Geographical differences and temporal improvements in forced expiratory volume in 1 second of preterm-born children: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/35759258/
Associations between prenatal urinary biomarkers of phthalate exposure and preterm birth: a pooled study of 16 US cohorts
https://pubmed.ncbi.nlm.nih.gov/35816333/

BMC Pediatrics

Understanding the risk factors for adverse events during exchange transfusion in neonatal hyperbilirubinemia using explainable artificial intelligence (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03615-5.pdf
Transplantation of maternal intestinal flora to the newborn after elective cesarean section (SECFLOR): study protocol for a double blinded randomized controlled trial (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03609-3.pdf
Attitudes towards the neurological examination in an unwell neonate: a mixed methods approach (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03616-4.pdf
Factors associated with 5-min APGAR score, death and survival in neonatal intensive care: a case-control study (PDF)

https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03592-9.pdf
Reference values for diaphragm electrical activity (Edi) in newborn infants (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03619-1.pdf
Outcome of neonatal hypoxemic respiratory failure: a livebirth population-based retrospective survey (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03603-9.pdf
Maternal preterm birth prediction in the United States: a case-control database study (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03591-w.pdf
Tidal volumes during delivery room stabilization of (near) term infants (PDF)
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03600-y.pdf
Machine learning for prediction of bronchopulmonary dysplasia-free survival among very preterm infants
https://pubmed.ncbi.nlm.nih.gov/36100848/
Severe neonatal hyperbilirubinemia secondary to combined RhC hemolytic disease, congenital hypothyroidism and large adrenal hematoma: a case report
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03594-7.pdf
Prognostic risk score development to predict birth asphyxia using maternal and fetal characteristics in South Gondar zone hospitals, north West Ethiopia
https://bmcpediatr.biomedcentral.com/counter/pdf/10.1186/s12887-022-03582-x.pdf

Pediatric Critical Care Medicine
No relevant articles

New England Journal of Medicine
No relevant articles

Lancet
No relevant articles

JAMA
No relevant articles

BMJ
No relevant articles

Pediatric Infectious Disease Journal
Discordant congenital toxoplasmosis and cytomegalovirus infection in dichorionic diamniotic twins
https://pubmed.ncbi.nlm.nih.gov/35797707/
The loss of respiratory syncytial virus seasonality and the effects on palivizumab administration
https://pubmed.ncbi.nlm.nih.gov/35763694/

Pediatric Cardiology
No new content

Pediatric Neurology
Association between early EEG background and outcomes in infants with mild hie undergoing therapeutic hypothermia
https://pubmed.ncbi.nlm.nih.gov/35835026/
Extremity movement score in infants with all Narakas types of obstetric brachial plexus palsy
https://pubmed.ncbi.nlm.nih.gov/35772228/

Obstetrics and Gynecology

Defining a cesarean delivery rate for optimizing maternal and neonatal outcomes
https://pubmed.ncbi.nlm.nih.gov/35930389/

American Journal of Obstetrics & Gynecology
Percutaneous/mini-laparotomy fetoscopic repair of open spina bifida: a novel surgical technique
https://pubmed.ncbi.nlm.nih.gov/35752302/
Maternal obesity during pregnancy leads to derangements in one-carbon metabolism and the gut microbiota: implications for fetal development and offspring wellbeing
https://pubmed.ncbi.nlm.nih.gov/35452650/
Fetal reduction of triplet pregnancies to twins vs singletons: a meta-analysis of survival and pregnancy outcome
https://pubmed.ncbi.nlm.nih.gov/35351408/
Antenatal intravenous immunoglobulins in pregnancies at risk of fetal and neonatal alloimmune thrombocytopenia: comparison of neonatal outcome in treated and nontreated pregnancies
https://pubmed.ncbi.nlm.nih.gov/35500612/
Severity of intrapartum fever and neonatal outcomes
https://pubmed.ncbi.nlm.nih.gov/35598690/

Hospital Pediatrics
No relevant content

BASIC SCIENCE SELECTION
A single intravenous injection of cyclosporin A-loaded lipid nanocapsules prevents retinopathy of prematurity
Marilena Bohley, Andrea E Dillinger, Frank Schweda, et al. *Sci Adv.*
https://www.ncbi.nlm.nih.gov/pubmed/36149956

Immunomodulation of MiRNA-223-based nanoplatform for targeted therapy in retinopathy of prematurity
Keke Huang, Zhiqing Lin, Yuanyuan Ge, et al. *J Control Release.*
https://www.ncbi.nlm.nih.gov/pubmed/35961472

Changes of oxidative stress-related gene expression in an in vitro model of neonatal hypoxic-ischemic encephalopathy
Carlo Dani, Simone Pratesi, Giuseppe Ranieri, et al. *Neonatology.*
https://www.ncbi.nlm.nih.gov/pubmed/36096109

Novel pharmacological inhibition of JMJD3 improves necrotizing enterocolitis by attenuating the inflammatory response and ameliorating intestinal injury
Shurong Ma, Lingqi Xu, Lulu Chen, et al. *Biochem Pharmacol.*
https://www.ncbi.nlm.nih.gov/pubmed/35803318

Targeting persistent neuroinflammation after hypoxic-ischemic encephalopathy-is exendin-4 the answer?
Kelly Q Zhou, Simerdeep K Dhillon, Laura Bennet, et al. *Int J Mol Sci.*
https://www.ncbi.nlm.nih.gov/pubmed/36077587

The administration of amnion-derived multipotent cell secretome ST266 protects against necrotizing enterocolitis in mice and piglets
Chhinder P Sodhi, Raheel Ahmad, Hongpeng Jia, et al. *Am J Physiol Gastrointest Liver Physiol.*
https://www.ncbi.nlm.nih.gov/pubmed/35819175

The effects of caffeine following hypoxic-ischemic encephalopathy: A systematic review of animal studies
Matteo Bruschettini, Alvaro Moreira, Ana Beatriz Pizarro, et al. *Brain Res.*
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