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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – November 2020

Methadone interrupts neural growth and function in human cortical organoids
Lillie J, Boot L, Speggiorin S, et al. Pediatr Crit Care Med.

Using a human 3D-brain cortical organoid (hCO) model, the authors investigated the effect of methadone on neuronal growth, neural network activity, and synaptic transmission. They found that methadone dose-dependently halted the growth of hCOs, suppressed firing of spontaneous action potentials, and decreased the frequency and amplitude of excitatory postsynaptic currents in neurons. These findings indicate that methadone interrupts neural growth and function in early brain development.

Individualized versus standard diet fortification for growth and development in preterm infants receiving human milk
Fabrizio V, Trzaski JM, Brownell EA, et al. Cochrane Database Syst Rev.

To determine whether individualizing fortification of breast milk reduces mortality and morbidity and promotes growth and development compared to standard fortification in preterm infants, the authors analyzed data from 7 RCTs. They found moderate- to low-certainty evidence suggesting that individualized fortification in VLBWs increases growth velocity of weight, length, and head circumference during the intervention period compared with standard non-individualized fortification.

Randomised trial of azithromycin to eradicate Ureaplasma in preterm infants
Viscardi RM, Terrin ML, Magder LS, et al. *Arch Dis Child Fetal Neonatal Ed.*

This was a prospective, phase II b randomized, double-blind, placebo-controlled trial, in 7 level III–IV US, academic NICU's, evaluating the efficacy of IV Azithromycin (D5W as placebo) in eradicating Ureaplasma from the respiratory tract in infants 24^0 –28^6 weeks' gestation. The primary outcome measured was Ureaplasma-free survival. Secondary outcomes were all-cause mortality, Ureaplasma clearance, physiological BPD at 36 weeks' postmenstrual age, comorbidities of prematurity and duration of respiratory support. In 121 infants randomized (azithromycin: n=60; placebo: n=61), 44 (36%) were Ureaplasma positive (azithromycin: n=19; placebo: n=25). Ureaplasma-free survival was 92% for azithromycin and 61% for placebo. Mortality was similar among two treatment groups. In a subgroup analysis, physiological BPD-free survival was 5/10 (50%) in azithromycin-assigned infants with lower respiratory tract Ureaplasma colonization versus 2/11 (18%) in placebo-treated infants. Perinatal mortality and prolonged respiratory support were concentrated in ELGANs who had Ureaplasma in the lower respiratory tract. The authors concluded that results of this trial demonstrated the efficacy of azithromycin treatment in eradicating Ureaplasma in ELGAN, but phase III clinical trials are needed to determine clinical benefits.

Earlier re-initiation of enteral feeding after necrotizing enterocolitis decreases recurrence or stricture: a systematic review and meta-analysis
Patel EU, Wilson DA, Brennan EA, et al. *J Perinatol.*

In this systematic review and meta-analysis, the authors evaluated earlier vs later re-initiation of feeds after NEC on the incidence of recurrent NEC, post-NEC stricture or both, as a composite outcome. Three studies, none being randomized trials, met criteria for inclusion, totaling 79 infants in the earlier refeeding group (<5-7 d/median 4d) and 119 in later refeeding group (≥5-7d/median 10d). In a pooled analysis, earlier re-initiation reduced the incidence of the composite outcome of recurrent NEC and/or post-NEC stricture, without any difference in the individual outcomes of stricture or recurrence. The authors concluded that earlier enteral refeeding after NEC did not result in any increased negative outcomes, and in fact resulted in a significantly lower risk for the combined outcome of recurrent NEC and/or post-NEC stricture suggesting that it is safe and may be preferable to start enteral feeds <7 days after a NEC diagnosis.

Exome sequencing for prenatal diagnosis in nonimmune hydrops fetalis
Sparks TN, Lianoglou BR, Adami RA, et al. *N Engl J Med.*

Nonimmune hydrops fetalis (NIHF), a fetal abnormality that is often lethal, has numerous genetic causes; the extent to which exome sequencing can aid in its diagnosis is unclear. The authors evaluated a series of 127 consecutive unexplained cases of NIHF that were defined by the presence of fetal ascites, pleural or pericardial effusions, skin edema, cystic hygroma, increased nuchal translucency, or a combination of these conditions. The primary outcome was the diagnostic yield of exome sequencing for detecting genetic variants that were classified as either pathogenic or likely pathogenic according to the criteria of the American College of Medical Genetics and Genomics. In this large case series of 127 fetuses with unexplained NIHF, the authors identified a diagnostic genetic variant in approximately one third of the cases.

Randomized controlled early versus late ventricular intervention study in posthemorrhagic ventricular dilatation: outcome at 2 years
Cizmeci MN, Groenendaal F, Liem KD, et al. *J Pediatr.*

The Early vs Late Ventricular Intervention Study (ELVIS) trial randomized preterm infants with Grade 3 IVH to post-hemorrhagic hydrocephalus treatment at two different thresholds for intervention. Treatment began with serial lumbar punctures followed by use of a subcutaneous ventricular reservoir and, later, a VP shunt. This study reports on 2-year neurodevelopmental outcomes of 113 ELVIS patients. Adverse outcome was seen in 35% of the low-threshold group vs. 51% of the high-threshold group (p=0.07). In the adjusted model, low-threshold intervention was associated with a decreased risk of adverse outcome (aOR, 0.24; 95% CI, 0.07-0.87). In the low-threshold group, VP shunt placement was not associated with impaired neurodevelopmental outcome. In the high-threshold group, however, VP shunt placement was associated with lower cognitive scores and lower motor scores (P<0.05). The authors conclude that earlier intervention for post-hemorrhagic hydrocephalus is associated with lower odds of death or severe neurodevelopmental disability.

Mechanical ventilation duration, brainstem development, and neurodevelopment in children born preterm: a prospective cohort study
Guillot M, Guo T, Ufkes S, et al. *J Pediatr.*

Part of a larger prospective cohort study, 144 neonates born between 24 and 30 weeks were studied over a 7-year period. Clinical data from each NICU admission were collected. MRI was obtained at 32 weeks and at term that included regional brainstem volumes automatically segmented and white matter assessment with diffusion tensor imaging and tract-based spatial statistics (TBSS). Neurodevelopmental outcomes were assessed at 4.5 years. Each additional day of invasive mechanical ventilation correlated with lower motor developmental scores, but not lower cognitive scores. Duration of mechanical ventilation was also associated with smaller brainstem volume and defects in white matter development. Although the mechanism is unclear, the authors conclude that in very preterm infants prolonged invasive mechanical ventilation is associated with impaired brainstem development, impaired white matter development, and impaired motor development.

Aerosolized calfactant for newborns with respiratory distress: a randomized trial
Cummings JJ, Gerday E, Minton S, et al. *Pediatrics.*

This is a prospective, multicenter, randomized, unblinded comparison trial of aerosolized calfactant (Infasurf) compared to usual care, in newborns with signs of RDS that required noninvasive respiratory support. Up to 3 doses of nebulized calfactant (6ml/kg) were given orally using a Solarys nebuizer with a modified pacifier adapter. The study included 457 infants from 22 NICUs (GA 23-41; median 33wks, and birth weight 595 to 4802g; median 1960g), with 230 infants in the aerosol group. Intubation and surfactant instillation decreased from 50% in the usual care group to 26% in the aerosol group, showing a significant reduction ($P < .0001$). Respiratory outcomes up to 28 days of age were not different.

Characteristics of newborns born to SARS-CoV-2-positive mothers: a retrospective cohort study
Farghaly MAA, Kupferman F, Castillo F, et al. *Am J Perinatol.*

This is a single-center retrospective cohort study comparing the characteristics of newborns born to SARS-CoV-2-positive women with those mothers who tested negative from March to May 2020. Of the 79 mothers tested, 15(18.98%) were positive for SARS-CoV-2. Significant associations were noted with presence of symptoms, skin-to-skin contact ($p<0.001$) and isolation ($p<0.001$). Only one newborn tested positive for SARS-CoV-2 and was unstable in the NICU. Infant of SARS-CoV-2 positive mothers were three times as likely to have desaturations, four times more likely to have poor feeding, and more likely to be symptomatic at 2 week follow up, compared to newborns from negative mothers.

Successful use of an artificial placenta–based life support system to treat extremely preterm ovine fetuses compromised by intrauterine inflammation
Usuda H, Watanabe S, Saito M, et al. *Am J Obstet Gynecol*.

Authors report on the challenges faced in using artificial placenta based systems in extremely preterm lambs (approx. 24 weeks), after having been exposed to intrauterine inflammation using E.Coli LPS injections. Refractory hypotension, white matter injury and growth restriction were observed and are key challenges that need to be overcome in the development of artificial placenta based systems for the extremely preterm infants.

OTHER NOTEWORTHY PUBLICATIONS – November, 2020

COVID-19
Are clinical outcomes worse for pregnant women at ≥20 weeks' gestation infected with coronavirus disease 2019? A multicenter case-control study with propensity score matching
https://pubmed.ncbi.nlm.nih.gov/32730899

Use of remdesivir for pregnant patients with severe novel coronavirus disease 2019
https://pubmed.ncbi.nlm.nih.gov/32771381
Delaying pregnancy during a public health crisis — examining public health recommendations for Covid-19 and beyond
https://pubmed.ncbi.nlm.nih.gov/32997931
Marketing of breastmilk substitutes during the COVID-19 pandemic
https://pubmed.ncbi.nlm.nih.gov/33038948
Association of SARS-CoV-2 test status and pregnancy outcomes
https://pubmed.ncbi.nlm.nih.gov/32965467
COVID-19 poses pregnancy risks
https://pubmed.ncbi.nlm.nih.gov/33170250
Presence and duration of symptoms in febrile infants with and without SARS-CoV-2 infection
https://pubmed.ncbi.nlm.nih.gov/33075219
Fetal transient skin edema in two pregnant women with coronavirus disease 2019 (COVID-19)
https://pubmed.ncbi.nlm.nih.gov/32649505
Obstetrical unit response to the COVID-19 pandemic: OUR study
https://www.ncbi.nlm.nih.gov/pubmed/32892329
Characteristics of newborns born to SARS-CoV-2-positive mothers: a retrospective cohort study (PDF)
https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0040-1715862.pdf
Clinical analysis of neonates born to mothers with or without COVID-19: a retrospective analysis of 48 cases from two neonatal intensive care units in Hubei province (PDF)
https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0040-1716505.pdf
Breastfeeding in COVID-19: a pragmatic approach (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7645812/pdf/10-1055-s-0040-1716506.pdf
COVID-19: minimising contaminated aerosol spreading during CPAP treatment (PDF)
https://fn.bmj.com/content/fetalneonatal/105/6/669.full.pdf

Pediatrics
State and local government expenditures and infant mortality in the United States
https://pubmed.ncbi.nlm.nih.gov/33077541
Infant mortality in rural and nonrural counties in the United States
https://pubmed.ncbi.nlm.nih.gov/33077539
Breastfeeding and infections in early childhood: a cohort study
https://pubmed.ncbi.nlm.nih.gov/33097658
Long-term outcomes of individuals with metabolic diseases identified through newborn screening
https://pubmed.ncbi.nlm.nih.gov/33051224
Preoperative blood transfusions and morbidity in neonates undergoing surgery
https://pubmed.ncbi.nlm.nih.gov/33087550
Aerosolized calfactant for newborns with respiratory distress: a randomized trial
https://pubmed.ncbi.nlm.nih.gov/33060258
State-level public insurance coverage and neonatal circumcision rates
https://pubmed.ncbi.nlm.nih.gov/33055226
Population based birth prevalence of disease-specific perinatal stroke
https://pubmed.ncbi.nlm.nih.gov/33115795
AAP: Neonatal opioid withdrawal syndrome
https://pubmed.ncbi.nlm.nih.gov/33106341
AAP: Evaluation and management of the infant exposed to HIV in the United States
https://pubmed.ncbi.nlm.nih.gov/33077537
AAP: Routine neuroimaging of the preterm brain
https://pubmed.ncbi.nlm.nih.gov/33106343
Research briefs: COVID-19 and newborn care: April 2020
https://pubmed.ncbi.nlm.nih.gov/32848026

Guidelines on deferred cord clamping and cord milking: a systematic review
https://pubmed.ncbi.nlm.nih.gov/33087551
State of the art review article: Patent ductus arteriosus of the preterm infant
https://pubmed.ncbi.nlm.nih.gov/33093140
A quality improvement initiative to optimize antibiotic use in a level 4 NICU
https://pubmed.ncbi.nlm.nih.gov/33055227

Journal of Pediatrics

The continuing problem of post-hemorrhagic ventricular dilation in infants born prematurely (PDF)
https://www.jpeds.com/article/S0022-3476(20)31152-5/pdf
Preemie brains don't like mechanical ventilation! (PDF)
https://www.jpeds.com/article/S0022-3476(20)30705-8/pdf
Is rapid exome sequencing standard of care in the neonatal and pediatric intensive care units? (PDF)
https://www.jpeds.com/article/S0022-3476(20)30988-4/pdf
Management of post-hemorrhagic ventricular dilatation in the infant born preterm
https://www.ncbi.nlm.nih.gov/pubmed/32739263
Randomized controlled early versus late ventricular intervention study in posthemorrhagic ventricular dilatation: outcome at 2 years
https://www.ncbi.nlm.nih.gov/pubmed/32800815
Outcomes following post-hemorrhagic ventricular dilatation among infants of extremely low gestational age
https://www.ncbi.nlm.nih.gov/pubmed/32739261
Plasma and cerebrospinal fluid candidate biomarkers of neonatal encephalopathy severity and neurodevelopmental outcomes
https://www.ncbi.nlm.nih.gov/pubmed/32610169
Cost-utility analysis of prophylactic dextrose gel vs standard care for neonatal hypoglycemia in at-risk infants
https://www.ncbi.nlm.nih.gov/pubmed/32634402
Mechanical ventilation duration, brainstem development, and neurodevelopment in children born preterm: a prospective cohort study
https://www.ncbi.nlm.nih.gov/pubmed/32454115
Hospital care cost and resource use of early discharge of healthy late preterm and term singletons: a population-based cohort study and cost analysis
https://www.ncbi.nlm.nih.gov/pubmed/32610167
Epidemiology of birth defects in very low birth weight infants in Japan
https://www.ncbi.nlm.nih.gov/pubmed/32634406
Family rooms in neonatal intensive care units and neonatal outcomes: an international survey and linked cohort study
https://www.ncbi.nlm.nih.gov/pubmed/32525041
Oxygenation instability assessed by oxygen saturation histograms during supine vs prone position in very low birthweight infants receiving noninvasive respiratory support
https://www.ncbi.nlm.nih.gov/pubmed/32615194
A randomized trial of parenteral nutrition using a mixed lipid emulsion containing fish oil in infants of extremely low birth weight: neurodevelopmental outcome at 12 and 24 months corrected age, a secondary outcome analysis
https://www.ncbi.nlm.nih.gov/pubmed/32590001
Utility of neonatal ophthalmologic examination for detection of infectious etiologies for symmetric intrauterine growth restriction
https://www.ncbi.nlm.nih.gov/pubmed/32629012
Heme catabolism and bilirubin production in readmitted jaundiced newborns
https://www.ncbi.nlm.nih.gov/pubmed/32526232
Death after birth asphyxia in the cooling era
https://www.ncbi.nlm.nih.gov/pubmed/32682749

Neighborhood inequality and emergency department use in neonatal intensive care unit graduates
https://www.ncbi.nlm.nih.gov/pubmed/32621816
Association of early antibiotic exposure and necrotizing enterocolitis: causality or confounding bias? (PDF)
https://www.jpeds.com/article/S0022-3476(20)30959-8/pdf
Reply (PDF)
https://www.jpeds.com/article/S0022-3476(20)30960-4/pdf
Risk of bias in study on early antibiotics and necrotizing enterocolitis (PDF)
https://www.jpeds.com/article/S0022-3476(20)30847-7/pdf
Reply (PDF)
https://www.jpeds.com/article/S0022-3476(20)30848-9/pdf

Pediatric Research

Cyclic AMP in human preterm infant blood is associated with increased TLR-mediated production of acute-phase and anti-inflammatory cytokines in vitro
https://pubmed.ncbi.nlm.nih.gov/31578034
Dose of budesonide with surfactant affects lung and systemic inflammation after normal and injurious ventilation in preterm lambs
https://pubmed.ncbi.nlm.nih.gov/32066138
Serial assessment of fat and fat-free mass accretion in very preterm infants: a randomized trial
https://pubmed.ncbi.nlm.nih.gov/32634820
Altered brain metabolism contributes to executive function deficits in school-aged children born very preterm
https://pubmed.ncbi.nlm.nih.gov/32590836
Serum cytokine profiles in infants with infantile hemangiomas on oral propranolol treatment: VEGF and bFGF, potential biomarkers predicting clinical outcomes
https://pubmed.ncbi.nlm.nih.gov/32311699
Randomised controlled trial: Can topical timolol maleate prevent complications for small superficial infantile haemangiomata in high-risk areas?
https://pubmed.ncbi.nlm.nih.gov/32357362
Microbiome of the first stool after birth and infantile colic
https://pubmed.ncbi.nlm.nih.gov/32053826
Stress as tool or toxin: physiologic markers and subjective report in neonatal simulation
https://pubmed.ncbi.nlm.nih.gov/32045934
Maternal dietary fat intake and the risk of congenital heart defects in offspring
https://pubmed.ncbi.nlm.nih.gov/32120376

Archives of Disease in Childhood - Fetal & Neonatal Edition

Umbilical cord milking in preterm infants: a systematic review and meta-analysis (PDF)
https://fn.bmj.com/content/fetalneonatal/105/6/572.full.pdf
Comparison of the management recommendations of the Kaiser Permanente neonatal early-onset sepsis risk calculator (SRC) with NICE guideline CG149 in infants ≥34 weeks' gestation who developed early-onset sepsis
https://pubmed.ncbi.nlm.nih.gov/32170032
Economic evaluation alongside the Speed of Increasing milk Feeds Trial (SIFT)
https://fn.bmj.com/content/fetalneonatal/105/6/587.full.pdf
Regional brain volumes, microstructure and neurodevelopment in moderate–late preterm children
https://pubmed.ncbi.nlm.nih.gov/32132139
The practice of blood volume submitted for culture in a neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/32198199
Corrective steps to enhance ventilation in the delivery room
https://pubmed.ncbi.nlm.nih.gov/32152191

Low risk of necrotising enterocolitis in enterally fed neonates with critical heart disease: an observational study (PDF)
https://fn.bmj.com/content/fetalneonatal/105/6/609.full.pdf
Randomised trial of azithromycin to eradicate Ureaplasma in preterm infants (PDF)
https://fn.bmj.com/content/fetalneonatal/105/6/615.full.pdf
Developmental trajectories of infants born at less than 30 weeks' gestation on the Bayley-III Scales
https://pubmed.ncbi.nlm.nih.gov/32366516
Blue LED phototherapy in preterm infants: effects on an oxidative marker of DNA damage
https://pubmed.ncbi.nlm.nih.gov/32269147
Parent experience of caring for neonates with seizures
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7581607
Continuous neurally adjusted ventilation: a feasibility study in preterm infants
https://pubmed.ncbi.nlm.nih.gov/32269148
Generating longitudinal growth charts from preterm infants fed to current recommendations
https://pubmed.ncbi.nlm.nih.gov/32451355
Quality improvement programme to increase the rate of deferred cord clamping at preterm birth using the Lifestart trolley
https://pubmed.ncbi.nlm.nih.gov/32350065
Resuscitation outcomes for weekend deliveries of very low birthweight infants
https://pubmed.ncbi.nlm.nih.gov/32414815
Nasal insertion depths for neonatal intubation
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Provider visual attention on a respiratory function monitor during neonatal resuscitation
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how does the BAPM framework for practice on perinatal management of extreme preterm birth before 27 weeks of gestation impact delivery of newborn life support? a resuscitation council UK response
https://pubmed.ncbi.nlm.nih.gov/32273302
Reflexes that impact spontaneous breathing of preterm infants at birth: a narrative review
https://pubmed.ncbi.nlm.nih.gov/32350064

Journal of Perinatology

New-generation intravenous fat emulsions and bronchopulmonary dysplasia in preterm infants: a systematic review and meta-analysis
https://pubmed.ncbi.nlm.nih.gov/32636446
Neonatal intestinal dysbiosis
https://www.nature.com/articles/s41372-020-00829-2
Improving perinatal regionalization: 10 years of experience with an Arkansas initiative
https://pubmed.ncbi.nlm.nih.gov/32678318
The association of maternal hypertensive disorders with neonatal congenital heart disease: analysis of a United States cohort
https://pubmed.ncbi.nlm.nih.gov/32859942
Endostatin and ST2 are predictors of pulmonary hypertension disease course in infants
https://pubmed.ncbi.nlm.nih.gov/32366869
Novel biomarkers of bronchopulmonary dysplasia and bronchopulmonary dysplasia-associated pulmonary hypertension
https://pubmed.ncbi.nlm.nih.gov/32811975
The effect of routine surveillance and decolonization on the rate of Staphylococcus aureus infections in a level IV neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/32772050
Cost-effectiveness of probiotics for necrotizing enterocolitis prevention in very low birth weight infants
https://pubmed.ncbi.nlm.nih.gov/32811974

A role for neonatal bacteremia in deaths due to intestinal perforation: spontaneous intestinal perforation compared with perforated necrotizing enterocolitis
https://pubmed.ncbi.nlm.nih.gov/32433511
Clinical determinants of postoperative outcomes in surgical necrotizing enterocolitis
https://pubmed.ncbi.nlm.nih.gov/32669645
Earlier re-initiation of enteral feeding after necrotizing enterocolitis decreases recurrence or stricture: a systematic review and meta-analysis (PDF)
https://www.nature.com/articles/s41372-020-0722-1
A comparison of macronutrient-based methods for deriving energy values in human milk
https://pubmed.ncbi.nlm.nih.gov/32665689
Zinc deficiency limiting head growth to discharge in extremely low gestational age infants with insufficient linear growth: a cohort study
https://pubmed.ncbi.nlm.nih.gov/32788617
Type of feeding provided with dextrose gel impacts hypoglycemia outcomes: comparing donor milk, formula, and breastfeeding
https://pubmed.ncbi.nlm.nih.gov/32792637
Fish oil-containing multicomponent lipid emulsion vs soy-based lipid emulsion and neurodevelopmental outcomes of children born < 29 weeks' gestation
https://pubmed.ncbi.nlm.nih.gov/32507860
Assuring safe patient care in a level III NICU in anticipation of hospital closure
https://pubmed.ncbi.nlm.nih.gov/32203173
Management of chronic pulmonary hypertension in neonates with bronchopulmonary dysplasia: perspectives of neonatologists with hemodynamic expertise and pediatric cardiologists (PDF)
https://www.nature.com/articles/s41372-020-00791-z

Neonatology

Epidural-related fever and maternal and neonatal morbidity: a systematic review and meta-analysis (PDF)
https://www.karger.com/Article/Pdf/504805
Agreement of cardiac output measurements between bioreactance and transthoracic echocardiography in preterm infants during the transitional phase: a single-centre, prospective study
https://pubmed.ncbi.nlm.nih.gov/32114576
Dynamic light scattering: a new noninvasive technology for neonatal heart rate monitoring (PDF)
https://www.karger.com/Article/Pdf/506771
Supratentorial brain metrics predict neurodevelopmental outcome in very preterm infants without brain injury at age 2 years
https://pubmed.ncbi.nlm.nih.gov/32396898
Neonatal umbilical arterial catheter removal is accompanied by a marked decline in phlebotomy blood loss
https://pubmed.ncbi.nlm.nih.gov/32564030
A comparison of UK preterm anthropometric charts and INTERGROWTH-21st: is it time to change growth charts?
https://pubmed.ncbi.nlm.nih.gov/32396901
Postnatal corticosteroids policy for very preterm infants and bronchopulmonary dysplasia
https://pubmed.ncbi.nlm.nih.gov/32454484
The thromboelastographic profile at birth in very preterm newborns with patent ductus arteriosus
https://pubmed.ncbi.nlm.nih.gov/32485708
Effect of intrauterine growth restriction on cerebral regional oxygen saturation in preterm and term neonates during immediate postnatal transition
https://pubmed.ncbi.nlm.nih.gov/32516786
Antenatal magnesium sulfate and preeclampsia differentially affect neonatal cerebral oxygenation (PDF)
https://www.karger.com/Article/Pdf/507705

Delivery of positive end-expiratory pressure using self-inflating bags during newborn resuscitation is possible despite mask leak
https://pubmed.ncbi.nlm.nih.gov/32610333
Differences in serum alkaline phosphatase levels in infants with spontaneous intestinal perforation versus necrotizing enterocolitis with perforation
https://pubmed.ncbi.nlm.nih.gov/32750698
Improving the bilirubin management program in the newborn nursery: background, aims, and protocol
https://pubmed.ncbi.nlm.nih.gov/32036378
Saliva for assessing vitamin a status in extremely preterm infants: a diagnostic study
https://pubmed.ncbi.nlm.nih.gov/32114572
Ampicillin treatment increases placental interleukin-1 beta concentration and polymorphonuclear infiltration in Group B streptococcus-induced chorioamnionitis: a preclinical study
https://pubmed.ncbi.nlm.nih.gov/32375156
A preterm infant with multiple anomalies diagnosed with atypical CHARGE syndrome after a novel CHD7 variant confirmed using whole-genome sequencing
https://pubmed.ncbi.nlm.nih.gov/32126561
Neonatal dieulafoy lesion requiring massive transfusion protocol and surgical intervention
https://pubmed.ncbi.nlm.nih.gov/32325456

American Journal of Perinatology
Predictors of early preterm birth despite vaginal progesterone therapy in singletons with short cervix
https://www.ncbi.nlm.nih.gov/pubmed/32344443
Induction of labor versus cesarean delivery in twin pregnancies
https://www.ncbi.nlm.nih.gov/pubmed/31344713
Secretion management in tracheostomized infants using unconventional approaches and outcomes: a case series
https://www.ncbi.nlm.nih.gov/pubmed/31365933
A multisite examination of everyday discrimination and the prevalence of spontaneous preterm birth in African American and Latina women in the United States
https://www.ncbi.nlm.nih.gov/pubmed/31365929
Neonatal jaundice: the other side of the coin in the development of allergy
https://www.ncbi.nlm.nih.gov/pubmed/31365932
Smoking during pregnancy and adverse birth and maternal outcomes in California, 2007 to 2016
https://www.ncbi.nlm.nih.gov/pubmed/31365931

Journal of Neonatal-Perinatal Medicine
No new content

Maternal Health, Neonatology and Perinatology
No new content

Neoreviews
Historical Perspectives: Unsilencing suffering: promoting maternal mental health in neonatal intensive care units
https://pubmed.ncbi.nlm.nih.gov/33139508
Congenital neuroblastoma
https://pubmed.ncbi.nlm.nih.gov/33139509
Intravascular hemolysis and complications during extracorporeal membrane oxygenation
https://pubmed.ncbi.nlm.nih.gov/33139510
Perinatal arterial ischemic stroke
https://pubmed.ncbi.nlm.nih.gov/33139511
Neonatal indirect hyperbilirubinemia
https://pubmed.ncbi.nlm.nih.gov/33139512

Case 1: A 31-week fetus with intestinal atresia and sudden fetal hemorrhage
https://pubmed.ncbi.nlm.nih.gov/33139513
Case 2: An uncommon peripherally inserted central catheter position with an uncommon diagnosis
https://pubmed.ncbi.nlm.nih.gov/33139514
Case 3: Hypoxia in a full-term neonate
https://pubmed.ncbi.nlm.nih.gov/33139515
Strip of the month: Intra-amniotic infection
https://pubmed.ncbi.nlm.nih.gov/33139516
A large tortuous umbilical cord with superficial abdominal wall varicose veins in a newborn
https://pubmed.ncbi.nlm.nih.gov/33139517
Video: Endotracheal tube replacement in a neonate using an airway exchange catheter
https://pubmed.ncbi.nlm.nih.gov/33139518

JAMA Pediatrics
Association of prenatal acetaminophen exposure measured in meconium with risk of attention-deficit/hyperactivity disorder mediated by frontoparietal network brain connectivity
https://www.ncbi.nlm.nih.gov/pubmed/32986124
Association between maternal perinatal depression and anxiety and child and adolescent development: a meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/32926075

BMC Pediatrics
C-reactive protein- and clinical symptoms-guided strategy in term neonates with early-onset sepsis reduced antibiotic use and hospital stay: a quality improvement initiative (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02426-w.pdf
Dose-dependent effect of human milk on bronchopulmonary dysplasia in very low birth weight infants (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02394-1.pdf
Reversal of blood flow in deep cerebral vein in preterm intraventricular hemorrhage: two case reports (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02414-0.pdf

Pediatric Critical Care Medicine
Clinical characteristics and outcomes for neonates, infants, and children referred to a regional pediatric intensive care transport service for extracorporeal membrane oxygenation
https://pubmed.ncbi.nlm.nih.gov/32886461

New England Journal of Medicine
Exome sequencing for prenatal diagnosis in nonimmune hydrops fetalis
https://pubmed.ncbi.nlm.nih.gov/33027564
Nonimmune hydrops fetalis — more than meets the eye?
https://pubmed.ncbi.nlm.nih.gov/33027567
Intussusception after rotavirus vaccine introduction in India
https://pubmed.ncbi.nlm.nih.gov/33176083
Transition zone in hirschsprung's disease
https://pubmed.ncbi.nlm.nih.gov/33207097
Killing the pathogen and sparing the placenta
https://pubmed.ncbi.nlm.nih.gov/33207100
A randomized trial of laryngeal mask airway in neonatal resuscitation (PDF)
https://www.nejm.org/doi/pdf/10.1056/NEJMoa2005333?articleTools=true

Lancet
A baby with red plaques on the face and a first-degree heart block: neonatal lupus
https://pubmed.ncbi.nlm.nih.gov/33129393
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Clinical outcome of children with corpus callosum agenesis
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https://pubmed.ncbi.nlm.nih.gov/33030872
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BASIC SCIENCE SELECTIONS
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Glomerular developmental delay and proteinuria in the preterm neonatal rabbit
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Prenatal indole-3-carbinol administration activates aryl hydrocarbon receptor-responsive genes and attenuates lung injury in a bronchopulmonary dysplasia model
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G-protein-coupled estrogen receptor protects retinal ganglion cells via inhibiting endoplasmic reticulum stress under hyperoxia
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Parenteral lipid emulsions induce unique ileal fatty acid and metabolomic profiles but do not increase the risk of necrotizing enterocolitis in preterm pigs
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Growth of head circumference and body length in preterm infants receiving a multicomponent vs a soybean-based lipid emulsion: a randomized controlled trial
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Asthma prevalence, lung and cardiovascular function in adolescents born preterm
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Neurodevelopmental outcomes in very preterm infants: The role of severity of bronchopulmonary dysplasia
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Comparative performance of head ultrasound and MRI in detecting preterm brain injury and predicting outcomes: a systematic review
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