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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – October 2020

Outcomes of maternal-newborn dyads after maternal SARS-CoV-2
Verma S, Bradshaw C, Auyeung NSF, et al. *Pediatrics.*

This multicenter, observational, descriptive cohort study sought to describe characteristics and outcomes of maternal-newborn dyads with confirmed maternal SARS-CoV-2 infection. There were a total of 149 mothers with SARS-CoV-2 infection and 149 newborns analyzed (3 sets of twins; 3 stillbirths). Symptomatic mothers had more premature deliveries, and their newborns were more likely to require intensive care than asymptomatic mothers. Although there was no distinct evidence of vertical transmission from mothers with SARS-CoV-2 to their newborns, perinatal morbidities were observed among both mothers and newborns.

Does umbilical cord milking increase the risk of severe intraventricular hemorrhage in extreme preterm neonates? A multitreatment comparison
Sanchez-Ramos L, Mc Cullough D, Mitta M, et al. *Am J Obstet Gynecol.*

Systematic reviews comparing umbilical cord milking (UCM) with delayed cord clamping (DCC) and early cord clamping (ECC) have shown that UCM is associated with neonatal benefits, including reduced rates of intraventricular hemorrhage (IVH). However, a recent large randomized trial comparing UCM with DCC reported a significantly higher rate of severe IVH in the UCM group. Due to this uncertainty, the authors performed a direct and indirect comparison meta-analysis to assess the risk of IVH in preterm neonates managed with UCM vs DCC and ECC. The authors found that UCM does not increase the incidence of IVH, overall. However, in extreme preterm infants UCM appears to be associated with an increased frequency of severe IVH.

Exposure to morphine and caffeine induces apoptosis and mitochondrial dysfunction in a neonatal rat brain
Kasala S, Briyal S, Prazad P, et al. *Front Pediatr.*

Since simultaneous use of morphine (M) and caffeine (C) is common in the NICU, authors chose to determine the effects of M and C, independently and in combination, on mitochondrial dysfunction and neural apoptosis in neonatal rat brain. They found that M+C showed a significantly higher expression of Bax compared to either alone with gender related differences. Importantly they found evidence of apoptosis and cell damage in all medication groups compared to controls. They conclude that use of morphine with caffeine in the first week of life increases brain apoptosis and cell damage compared to individual use.

Erythropoietin improves atrophy, bleeding and cognition in the newborn intraventricular hemorrhage
Hierro-Bujalance C, Infante-Garcia C, Sanchez-Sotano D, et al. *Front Cell Dev Biol.*

Because erythropoietin (EPO) has CNS protective properties, the authors chose to investigate its impact on germinal matrix-intraventricular hemorrhage (GM-IVH). EPO was administered to 7-day-old mice using an intraventricular collagenase model of GM-IVH. EPO treatment limited brain atrophy and ventricular enlargement, restored neuronal density, ameliorated dendritic spine loss, and reduced inflammation and small vessel bleeding. These data support the positive effect of EPO treatment in a preclinical model of GM-IVH.

Positive end-expiratory pressure in newborn resuscitation around term: a randomized controlled trial
Holte K, Ersdal H, Eilevstjønn J, et al. *Pediatrics.*

In this randomized controlled trial to determine if adding a new PEEP valve to the bag-mask during resuscitation of term and near-term newborns could improve heart rate response, Helping Babies Breathe trained midwives resuscitated 417 newborns using self-inflating bags with (n=211) or without (n=206) a new integrated PEEP valve. Heart rate response measured by ECG was the primary outcome, and clinical outcome and ventilation data were recorded. No difference in HR response or 24hr mortality was noted. However the PEEP group had a median measured PEEP of 4.7 millibar, received lower tidal volume (4.9 vs 6.3 ml/kg) and had a borderline lower expired CO2 (2.9 vs 3.3 %). The authors concluded that the findings did not support routine use of PEEP during resuscitation of newborns around term.

The route, dose, and interval of epinephrine for neonatal resuscitation: a systematic review
Isayama T, Mildenhall L, Schmölzer GM, et al. *Pediatrics.*

In this systematic review of human and relevant animal studies comparing standard IV vs other doses, routes and intervals of epinephrine administration in neonatal resuscitation, the authors evaluated several data sources and used the GRADE tool for analysis. Among 593 retrieved records, only 2 of 4 eligible cohort studies yielded data allowing comparisons. There were no differences between IV and ET epinephrine for the primary outcome of death at hospital discharge or for failure to achieve return of spontaneous circulation, time to return of spontaneous circulation (1 study; 50 infants), or proportion receiving additional epinephrine (2 studies; 97 infants). There were no differences in outcomes between 2 endotracheal doses in 1 study. Acknowledging that there is sparse human evidence for this question, the authors conclude that while ET vs IV epinephrine resulted in similar outcomes in human studies, animal studies continue to suggest benefit of IV administration using currently recommended doses.

Association between dopamine and cerebral autoregulation in preterm neonates
Solanki NS and Hoffman SB. *Pediatr Res.*

Cerebral NIRS and continuous blood pressure monitoring were used to assess cerebral autoregulation in 61 preterm neonates in the first 96 hours after birth. Gestational age was 24-29 weeks, and mean birthweight was 849g. 61 patients were studied, and 23 were treated with dopamine infusion at a dose range up to 20mcg/kg/min. Data were analyzed in 10min epochs, and only epochs with a steady dopamine dose were included. Impaired cerebral autoregulation (ICA) was defined as a MAP and rScO2 correlation coefficient >0.5 for each 10min epoch. Neonates treated with dopamine had increased time of ICA (23 ±10% vs 14 ±7%, $p<0.001$). The maximum time of ICA occurred at a dopamine dose of 11-15mcg/kg/min with a less ICA for a dose range of 16-20mcg/kg/min. The authors conclude that dopamine use is associated with ICA, which highlights the need for uniform parameters for dopamine use and close monitoring to avoid wide fluctuations in blood pressure.

Effect of high-dose erythropoietin on blood transfusions in extremely low gestational age neonates: post hoc analysis of a randomized clinical trial
Juul SE, Vu PT, Comstock BA, et al. *JAMA Pediatr.*

In post hoc analysis of the PENUT trial, transfusion data were analyzed after extremely preterm neonates were randomized to high-dose erythropoietin vs placebo until 32 weeks PMA. Of 936 infants, more infants in the erythropoietin group were transfusion-free at 12 weeks after birth (117 vs 43, p<0.001). Erythropoietin reduced the number of transfusions [RR 0.66 (CI 0.59-0.75)] but was associated with a higher hematocrit at 33 weeks PMA. Erythropoietin treatment also reduced total transfused volume by 25.7 (CI 18-33) mL and the number of donors [RR 0.67 (CI 0.57-0.77)]. The authors conclude that high-dose erythropoietin followed by maintenance doses with careful management of iron status can be safely added to interventions to minimize blood transfusions in preterm infants.

Synthetic surfactant CHF5633 compared with poractant alfa in the treatment of neonatal respiratory distress syndrome: a multicenter, double-blind, randomized, controlled clinical trial
Ramanathan R, Biniwale M, Sekar K, et al. *J Pediatr.*

This is a randomized trial comparing the efficacy and safety of a new synthetic surfactant (CHF5633) with poractant alfa, for respiratory distress syndrome (RDS) in preterm infants. The study included 123 eligible neonates between 24 0/7 to 29 6/7 weeks gestational age, and 113 were treated (56 and 57 in CHF5633 and poractant alfa groups, respectively). Both groups had decreased FiO2 and respiratory severity score from baseline at 24 hours, 7 and 28 days (P < .001) with no statistically significant differences between groups. The authors conclude that CHF5633 showed similar efficacy and safety as poractant alfa in neonates born preterm with moderate-to-severe RDS.

Antibiotic treatments and patient outcomes in necrotizing enterocolitis
Murphy C, Nair J, Wrotniak B, et al. *Am J Perinatol.*

This single center study reviewed the impact of different antibiotic treatments on necrotizing enterocolitis (NEC) outcomes in 160 NEC patients. Fourteen different antibiotics were used for NEC, most commonly Ampicillin, Gentamicin, and Metronidazole (AGM). Medical NEC patients more likely received AGM (37 vs. 6%, p < 0.001) without any outcome differences between ≤10 days versus longer courses. Surgical NEC patients more likely received vancomycin (80 vs. 30%, p < 0.001) and antipseudomonal agents (69 vs. 15%, p < 0.001). The authors conclude that antibiotic use for NEC varies substantially without definite differences in outcomes, and suggest using narrow-spectrum and shorter antibiotic courses.

Dose-escalation trial of budesonide in surfactant for prevention of bronchopulmonary dysplasia in extremely low gestational age high-risk newborns (SASSIE)
McEvoy CT, Ballard PL, Ward RM, et al. *Pediatr Res.*

This phase I/II open label dose-escalation trial conducted at 4 U.S. hospitals treated 24 mechanically ventilated infants between 23+0 and 27+6 weeks gestational age between postnatal days 3 to 14. Infants received budesonide in calfactant at three different escalating budesonide concentrations (0.025, 0.05, and 0.10 mg/kg) and were compared to historic matched controls from the Trial of Late SURFactant (TOLUSURF). The authors found that there was a decrease in tracheal aspirate cytokine levels in those infants who had previous cytokine elevation and a time and dose dependent decrease in blood cortisol concentrations. Respiratory outcomes did not differ from controls.

COVID-19

Global health: New insights on COVID-19's hyperinflammation in children
https://pubmed.ncbi.nlm.nih.gov/33079162
Research letter: Evaluation for SARS-CoV-2 in breast milk from 18 infected women
https://pubmed.ncbi.nlm.nih.gov/32822495
Viewpoint: Pediatrics and COVID-19
https://pubmed.ncbi.nlm.nih.gov/32960248
A multicentered study on epidemiologic and clinical characteristics of 37 neonates with community-acquired COVID-19
https://pubmed.ncbi.nlm.nih.gov/32932329
Evidence based care for pregnant women with covid-19
https://pubmed.ncbi.nlm.nih.gov/32907823
Outcomes of maternal-newborn dyads after maternal SARS-CoV-2
https://pubmed.ncbi.nlm.nih.gov/32737153
Prenatal neonatology telemedicine consultation for patients with fetal anomalies during the COVID-19 pandemic era: rapid implementation and lessons learned
https://pubmed.ncbi.nlm.nih.gov/32796925
Handover of patients: the challenges of COVID-19
https://pubmed.ncbi.nlm.nih.gov/32826937
Newborns of COVID-19 mothers: short-term outcomes of co-locating and breastfeeding from the pandemic's epicenter
https://pubmed.ncbi.nlm.nih.gov/32778684
Covid-19 and breastfeeding: what's the risk?
https://pubmed.ncbi.nlm.nih.gov/32661368
The clinical course of SARS-CoV-2 positive neonates
https://pubmed.ncbi.nlm.nih.gov/32632198
Visitation restrictions: is it right and how do we support families in the NICU during COVID-19?
https://pubmed.ncbi.nlm.nih.gov/32772051
Editorial: Perinatal COVID-19 infection prevention: infographics for patients and providers
https://pubmed.ncbi.nlm.nih.gov/32683668
Outcomes in COVID-19 positive neonates and possibility of viral vertical transmission: a narrative review
https://pubmed.ncbi.nlm.nih.gov/32736407

Pediatrics

Early neurodevelopmental trajectories for autism spectrum disorder in children born very preterm
https://pubmed.ncbi.nlm.nih.gov/32900877
Early hypoxic respiratory failure in extreme prematurity: mortality and neurodevelopmental outcomes
https://pubmed.ncbi.nlm.nih.gov/32943536
Positive end-expiratory pressure in newborn resuscitation around term: a randomized controlled trial
https://pubmed.ncbi.nlm.nih.gov/32917847
Epinephrine for neonatal resuscitation: the limits of knowledge
https://pubmed.ncbi.nlm.nih.gov/32907922
Routine intubation in newborns with congenital diaphragmatic hernia
https://pubmed.ncbi.nlm.nih.gov/32963021
The route, dose, and interval of epinephrine for neonatal resuscitation: a systematic review
https://pubmed.ncbi.nlm.nih.gov/32907923
Orchestrated testing of formula type to reduce length of stay in neonatal abstinence syndrome
https://pubmed.ncbi.nlm.nih.gov/32913133

Journal of Pediatrics

The left heart, systemic circulation, and bronchopulmonary dysplasia: Relevance to pathophysiology and therapeutics
https://pubmed.ncbi.nlm.nih.gov/32553872

Association of poor postnatal growth with neurodevelopmental impairment in infancy and childhood: Comparing the fetus and the healthy preterm infant references
https://pubmed.ncbi.nlm.nih.gov/32525038

Trends in perinatal practices and neonatal outcomes of very low birth weight infants during a 16-year period at NEOCOSUR centers
https://pubmed.ncbi.nlm.nih.gov/32454113

Hand function at 18-22 months is associated with school-age manual dexterity and motor performance in children born extremely preterm
https://pubmed.ncbi.nlm.nih.gov/32474029

A comparison of strategies for managing the umbilical cord at birth in preterm infants
https://pubmed.ncbi.nlm.nih.gov/32442446

Cardiovascular outcomes in young adulthood in a population-based very low birth weight cohort
https://pubmed.ncbi.nlm.nih.gov/32553866

Cost-effectiveness analysis of screening extremely low birth weight children for hepatoblastoma using serum alpha-fetoprotein
https://pubmed.ncbi.nlm.nih.gov/32470475

Synthetic surfactant CHF5633 compared with poractant alfa in the treatment of neonatal respiratory distress syndrome: a multicenter, double-blind, randomized, controlled clinical trial
https://pubmed.ncbi.nlm.nih.gov/32553868

Actuarial survival based on gestational age in days at birth for infants born at <26 weeks of gestation
https://pubmed.ncbi.nlm.nih.gov/32474028

Brief Report: SARS-CoV-2 infection in patients with Down syndrome, congenital heart disease, and pulmonary hypertension: is down syndrome a risk factor? (PDF)
https://www.jpeds.com/article/S0022-3476(20)30830-1/pdf

Brief Report: Sustainability of a clinical examination-based approach for ascertainment of early-onset sepsis in late preterm and term neonates
https://pubmed.ncbi.nlm.nih.gov/32511960

Pediatric Research

NEC-like intestinal injury is ameliorated by Lactobacillus rhamnosus GG in parallel with SIGIRR and A20 induction in neonatal mice
https://www.ncbi.nlm.nih.gov/pubmed/32053825

Effects of Klotho supplementation on hyperoxia-induced renal injury in a rodent model of postnatal nephrogenesis
https://www.ncbi.nlm.nih.gov/pubmed/32059229

** Hormone levels in preterm and donor human milk before and after Holder pasteurization
https://www.ncbi.nlm.nih.gov/pubmed/32000260

Association between dopamine and cerebral autoregulation in preterm neonates (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7223955/pdf/41390_2020_Article_790.pdf

Dose-escalation trial of budesonide in surfactant for prevention of bronchopulmonary dysplasia in extremely low gestational age high-risk newborns (SASSIE) (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7223897/pdf/41390_2020_Article_792.pdf

Oxygen saturation histograms predict nasal continuous positive airway pressure-weaning success in preterm infants (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7223394/pdf/41390_2020_Article_772.pdf

Specific cognitive correlates of the quality of life of extremely preterm school-aged children without major neurodevelopmental disability
https://www.ncbi.nlm.nih.gov/pubmed/32050254

Prediction of short-term neonatal complications in preterm infants using exome-wide genetic variation and gestational age: a pilot study (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7416450/pdf/nihms-1553751.pdf
Impact of maternal hypertensive disorders on offspring's neurodevelopment: a longitudinal prospective cohort study in China
https://www.ncbi.nlm.nih.gov/pubmed/32018276
Family reflections: neonatal sepsis
https://www.ncbi.nlm.nih.gov/pubmed/32316031

Archives of Disease in Childhood - Fetal & Neonatal Edition
No new articles

Journal of Perinatology
Marijuana: the effects on pregnancy, the fetus, and the newborn
https://pubmed.ncbi.nlm.nih.gov/32507859
Impact of pregnancy marijuana use on birth outcomes: results from two matched population-based cohorts
https://pubmed.ncbi.nlm.nih.gov/32139807
Evaluating the effect of hospital setting on outcomes for neonatal abstinence syndrome
https://pubmed.ncbi.nlm.nih.gov/32086436
Effects of polysubstance exposure on neonatal outcomes for infants with intrauterine opioid exposure
https://pubmed.ncbi.nlm.nih.gov/32641774
Adverse neonatal outcomes associated with maternal severe mental health diagnoses and opioid use
https://pubmed.ncbi.nlm.nih.gov/32753708
Exchange transfusion safety and outcomes in neonatal hyperbilirubinemia
https://pubmed.ncbi.nlm.nih.gov/32152492
Comparison of end-tidal carbon monoxide measurements with direct antiglobulin tests in the management of neonatal hyperbilirubinemia
https://pubmed.ncbi.nlm.nih.gov/32203175
Clinical decision support tool for phototherapy initiation in preterm infants
https://pubmed.ncbi.nlm.nih.gov/32792630
Implementation of a statewide, multisite fetal tele-echocardiography program: evaluation of more than 1100 fetuses over 9 years
https://pubmed.ncbi.nlm.nih.gov/32382116
Impact of standardized prenatal documentation among newborns with ductal-dependent heart disease
https://pubmed.ncbi.nlm.nih.gov/32398739
Assessing speech exposure in the NICU: Implications for speech enrichment for preterm infants
https://pubmed.ncbi.nlm.nih.gov/32362660
Variability in the systems of care supporting critical neonatal intensive care unit transitions
https://pubmed.ncbi.nlm.nih.gov/32665688
Pediatric contact allergens in the neonatal intensive care unit
https://pubmed.ncbi.nlm.nih.gov/32807911
A quality improvement initiative to implement the eat, sleep, console neonatal opioid withdrawal syndrome care tool in Massachusetts' PNQIN collaborative
https://pubmed.ncbi.nlm.nih.gov/32678314
Improving transport time for babies with antenatally diagnosed transposition of the great arteries reduces the need for ECMO
https://pubmed.ncbi.nlm.nih.gov/32393830
Sixty years of phototherapy for neonatal jaundice: from serendipitous observation to standardized treatment and rescue for millions
https://pubmed.ncbi.nlm.nih.gov/32561834
Blinded by the light? Possible phototherapy downsides
https://pubmed.ncbi.nlm.nih.gov/32393831

Creating the optimal environment of care in the newborn ICU: recommended standards for newborn ICU design, 9th edition and related articles
https://pubmed.ncbi.nlm.nih.gov/32859957

Neonatology
No new articles

American Journal of Perinatology
The impact of previous obstetric history on the risk of spontaneous preterm birth in women with a sonographic short cervix
https://pubmed.ncbi.nlm.nih.gov/32198747
Placental findings in postpartum preeclampsia: a comparative retrospective study
https://pubmed.ncbi.nlm.nih.gov/31266066
Association of caloric intake, protein intake, and enteral feeding initiation with weight gain in infants born 32 to 34 weeks' gestation
https://pubmed.ncbi.nlm.nih.gov/31238346
Factors associated with timeliness of surgical repair among infants with myelomeningocele: California perinatal quality care collaborative, 2006 to 2011
https://pubmed.ncbi.nlm.nih.gov/31307103
Antibiotic treatments and patient outcomes in necrotizing enterocolitis
https://pubmed.ncbi.nlm.nih.gov/31307104
Simulation in neonatal-perinatal medicine fellowship programs
https://pubmed.ncbi.nlm.nih.gov/31307105
Selective head versus whole body cooling treatment of hypoxic-ischemic encephalopathy: comparison of electroencephalogram and magnetic resonance imaging findings
https://pubmed.ncbi.nlm.nih.gov/31344712
Beyond the first wave: consequences of COVID-19 on high-risk infants and families (PDF)
https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0040-1715839.pdf

Journal of Neonatal-Perinatal Medicine
No new content

Maternal Health, Neonatology and Perinatology
Maternal and cord blood vitamin D level and the infant gut microbiota in a birth cohort study
https://mhnpjournal.biomedcentral.com/articles/10.1186/s40748-020-00119-x

Neoreviews
Neonatal presentations of metabolic disorders
https://pubmed.ncbi.nlm.nih.gov/33004558
Genetic etiologies of neonatal seizures
https://pubmed.ncbi.nlm.nih.gov/33004559
Mediastinal air collection in a preterm male
https://pubmed.ncbi.nlm.nih.gov/33004560
Vein of galen malformation
https://pubmed.ncbi.nlm.nih.gov/33004561
Case 1: Rapidly rising bilirubin level in a 3-day-old term infant
https://pubmed.ncbi.nlm.nih.gov/33004562
Case 2: A salty baby
https://pubmed.ncbi.nlm.nih.gov/33004563
Case 3: Term infant with apnea
https://pubmed.ncbi.nlm.nih.gov/33004564

Established and emerging treatments for patients with inborn errors of metabolism
https://pubmed.ncbi.nlm.nih.gov/33004565

JAMA Pediatrics
Effect of high-dose erythropoietin on blood transfusions in extremely low gestational age neonates: post hoc analysis of a randomized clinical trial
https://pubmed.ncbi.nlm.nih.gov/32804205
Defining very preterm populations for systematic reviews with meta-analyses
https://pubmed.ncbi.nlm.nih.gov/32539115

BMC Pediatrics
Body temperature instability and respiratory morbidity in the very low birth weight infant: a multiple case, intensive longitudinal study (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02351-y
Study protocol: parents as pain management in Swedish neonatal care – SWEpap, a multi-center randomized controlled trial (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02356-7
Pediatric neurodevelopment by prenatal Zika virus exposure: a cross-sectional study of the Microcephaly Epidemic Research Group Cohort (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02331-2
Capillary blood reference intervals for platelet parameters in healthy full-term neonates in China (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02373-6
Effects of guided counseling during pregnancy on birth weight of newborns in West Gojjam Zone, Ethiopia: a cluster-randomized controlled trial (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02363-8
The risks of advancing parental age on neonatal morbidity and mortality are U- or J-shaped for both maternal and paternal ages (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-020-02341-0

Pediatric Critical Care Medicine
Editorial: Extubation after neonatal and pediatric cardiac surgery: where and when? (PDF)
https://pdfs.journals.lww.com/pccmjournal/2020/10000/Extubation_After_Neonatal_and_Pediatric_Cardiac.14.pdf
Letter: Noninvasive surfactant use in the treatment of respiratory distress syndrome (PDF)
https://pdfs.journals.lww.com/pccmjournal/2020/10000/Noninvasive_Surfactant_Use_in_the_Treatment_of.25.pdf
Mirrored ribs: a sign for pneumothorax in neonates
https://www.ncbi.nlm.nih.gov/pubmed/32452975

New England Journal of Medicine
Review article: Congenital adrenal hyperplasia due to 21-hydroxylase deficiency
https://pubmed.ncbi.nlm.nih.gov/32966723

Lancet
Correspondence: Newborn pulse oximetry screening in the UK: a 2020 survey
https://pubmed.ncbi.nlm.nih.gov/32950070

JAMA
See COVID Section

BMJ

Comment: Black babies cared for by black doctors less likely to die in US: revolutionize medical education to tackle problem in UK
https://pubmed.ncbi.nlm.nih.gov/32994192
Education: Neonatal sepsis
https://pubmed.ncbi.nlm.nih.gov/33004379
Risk of complicated birth at term in nulliparous and multiparous women using routinely collected maternity data in England: cohort study
https://pubmed.ncbi.nlm.nih.gov/33004347
Education: Growth concerns in the early weeks of life
https://pubmed.ncbi.nlm.nih.gov/32958514

Pediatric Infectious Disease Journal

Using preventive health alerts in the electronic health record improves Hepatitis C virus testing among infants perinatally exposed to Hepatitis C
https://pubmed.ncbi.nlm.nih.gov/32453202
Prevention of acquisition of cytomegalovirus infection in pregnancy through hygiene-based behavioral interventions: A systematic review and gap analysis
https://pubmed.ncbi.nlm.nih.gov/32502127

Pediatric Cardiology

Central vascular thrombosis in neonates with congenital heart disease awaiting cardiac intervention
https://pubmed.ncbi.nlm.nih.gov/32472152
Assessing patent ductus arteriosus (PDA) significance on cardiac output by whole-body bio-impedance
https://pubmed.ncbi.nlm.nih.gov/32524206
Chiari network associated with hypoxemia in a neonate: case report and review of the literature
https://pubmed.ncbi.nlm.nih.gov/32729053

Pediatric Neurology

No relevant articles

Obstetrics and Gynecology

Elective labor induction at 39 Weeks of gestation compared with expectant management: Factors associated with adverse outcomes in low-risk nulliparous women
https://pubmed.ncbi.nlm.nih.gov/32925628
Maternal and neonatal outcomes in hospital-based deliveries with water immersion
https://pubmed.ncbi.nlm.nih.gov/32925614
Pathophysiologic origins of brachial plexus injury
https://pubmed.ncbi.nlm.nih.gov/32925630
Outcomes of subsequent births after placenta accreta spectrum
https://pubmed.ncbi.nlm.nih.gov/32925617

American Journal of Obstetrics & Gynecology

Impact of growth discordance in twins on preeclampsia based on chorionicity
https://www.ncbi.nlm.nih.gov/pubmed/32247845
Paired maternal and fetal cardiac functional measurements in women with gestational diabetes mellitus at 35–36 weeks' gestation
https://www.ncbi.nlm.nih.gov/pubmed/32335051
Prevalence, risk factors, and outcome of postprocedural amniotic band disruption sequence after fetoscopic laser surgery in twin-twin transfusion syndrome: a large single-center case series (PDF)
https://www.ajog.org/article/S0002-9378(20)30464-6/pdf
Does umbilical cord milking increase the risk of severe intraventricular hemorrhage in extreme preterm neonates? A multitreatment comparison (PDF)

https://www.ajog.org/article/S0002-9378(20)30668-2/pdf
Maternal mortality among women with coronavirus disease 2019 admitted to the intensive care unit (PDF)
https://www.ajog.org/article/S0002-9378(20)30636-0/pdf

Hospital Pediatrics
Variation in care and clinical outcomes among infants hospitalized with hyperbilirubinemia
https://pubmed.ncbi.nlm.nih.gov/32917777

BASIC SCIENCE SELECTIONS
Dexmedetomidine alleviates neurobehavioral impairments and myelination deficits following lipopolysaccharide exposure in early postnatal rats
Wu Z, Xue H, Zhang Y, et al. *Life Sci.*
https://www.ncbi.nlm.nih.gov/pubmed/33038375

Novel peptide derived from IGF-2 displays anti-angiogenic activity in vitro and inhibits retinal angiogenesis in a model of oxygen-induced retinopathy
Zheng Y, Sun Q, Xu X, et al. *Clin Exp Ophthalmol*
https://www.ncbi.nlm.nih.gov/pubmed/33026147

Restoring BMP4 expression in vascular endothelial progenitors ameliorates maternal diabetes-induced apoptosis and
Cao S, Reece EA, Shen WB, et al. *Cell Death Dis.*
https://www.ncbi.nlm.nih.gov/pubmed/33060561

Proteomics reveals region-specific hemostatic alterations in response to mechanical ventilation in a preterm lamb model of lung injury
Schmid C, Ignjatovic V, Pang B, et al. *Thromb Res.*
https://www.ncbi.nlm.nih.gov/pubmed/33075590

Exposure to morphine and caffeine induces apoptosis and mitochondrial dysfunction in a neonatal rat brain
Kasala S, Briyal S, Prazad P, et al. *Front Pediatr.*
https://www.ncbi.nlm.nih.gov/pubmed/33042927

The effects of antenatal dexamethasone and hyperglycemia on cardiovascular adaptation to asphyxia in preterm fetal sheep
Lear CA, Davidson JO, Dhillon SK, et al. *Am J Physiol Regul Integr Comp Physiol.*
https://www.ncbi.nlm.nih.gov/pubmed/33074015

Intranasal mesenchymal stem cell therapy to boost myelination after encephalopathy of prematurity
Vaes JEG, van Kammen CM, Trayford C, et al. *Glia.*
https://www.ncbi.nlm.nih.gov/pubmed/33045105

ADDITIONAL JOURNAL SELECTIONS
Neurobehavior of newborn infants exposed prenatally to methadone and identification of a neurobehavioral profile linked to poorer neurodevelopmental outcomes at age 24 months
Wouldes TA and Woodward LJ. *PLoS One.*
https://www.ncbi.nlm.nih.gov/pubmed/33064777

Macrolides for the prevention and treatment of feeding intolerance in preterm low birth weight infants: a systematic review and meta-analysis
Basu S and Smith S. *Eur J Pediatr.*
https://www.ncbi.nlm.nih.gov/pubmed/33044576

Serious neonatal morbidities are associated with differences in DNA methylation among very preterm infants
Everson TM, O'Shea TM, Burt A, et al. *Clin Epigenetics.*
https://www.ncbi.nlm.nih.gov/pubmed/33076993

Transcatheter closure of patent ductus arteriosus in infants with weight under 1,500 grams
Fraisse A, Bautista-Rodriguez C, Burmester M, et al. *Front Pediatr.*
https://www.ncbi.nlm.nih.gov/pubmed/33072674

Association of paternal smoking with the risk of neural tube defects in offspring: A systematic review and meta-analysis of observational studies
Luo L, Diao J, Li J, et al. *Birth Defects Res.*
https://www.ncbi.nlm.nih.gov/pubmed/33068074

Racial and ethnic disparities in maternal and infant outcomes among opioid-exposed mother-infant dyads in Massachusetts (2017-2019)
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