Publications Working Group

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Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – December 2019

Human milk use in the preoperative period is associated with a lower risk for necrotizing enterocolitis in neonates with complex congenital heart disease Cognata A, Kataria-Hale J, Griffiths P, et al. J Pediatr.

This was a single center retrospective study of 546 infants of any gestational age with an isolated cardiac lesion at high risk for NEC (ductal-dependent lesions, transposition of the great arteries, truncus arteriosus, and aorto-pulmonary window). The authors evaluated the hypothesis that exposure to cow's milk or higher feeding volumes (>100ml/kg/day) preoperatively increased the risk of NEC in infants with complex congenital heart disease. 3.3% of the infants studies developed Bell stage I-III NEC. Using a multivariable regression model, they found that feeding volumes exceeding 100 mL/kg/d were associated with a significantly greater risk and an exclusive unfortified human milk diet was associated with a significantly lower risk of preoperative NEC in this cohort of infants with complex congenital heart disease.

Short-term effects of early initiation of magnesium infusion combined with cooling after hypoxiaischemia in term piglets

Lingam I, Meehan C, Avdic-Belltheus A, et al. Pediatr Res.

The authors used a newborn piglet model of hypoxic-ischemia with therapeutic hypothermia to randomize 15 piglets to receive either magnesium sulfate and hypothermia or saline and hypothermia. Serum and CSF magnesium levels were higher in the magnesium-treated group. aEEG was improved among the moderate-severe encephalopathy piglets treated with magnesium, but no differences were noted in magnetic resonance spectroscopy at 24 or 48 hours. The magnesium group also had less cell death, and the therapy was well tolerated. They conclude these data suggest there is an incremental benefit that warrants additional pre-clinical studies.

Very preterm neonates receiving "aggressive" nutrition and early nCPAP had similar long-term respiratory outcomes as term neonates (PDF) Panagiotounakou P, Sokou R, Gounari E, et al. Pediatr Res.

A group of infants was followed for 8-10 years including 85 preterm infants <1500g or <32 weeks and 62 term infants without respiratory problems at birth. NICU care of the preterm group was characterized as "aggressive" nutrition and early, persistent CPAP. Aggressive nutrition included feeding advancement 24-36 mL/kg/day to 200 mL/kg/day and increased up to 240 mL/kg/day if growth was unsatisfactory. CPAP was used as a primary respiratory support mode or a post-extubation mode with permissive hypercapnia and continued until 33-34 weeks. Term babies had increased growth parameters at 2 and 8

years. Preterm and term groups were similar in FEV1, forced vital capacity, number of lower respiratory infections, and the number of hospitalizations for respiratory infections up to 8 years. The authors suggest the combination of "aggressive" nutrition and early, persistent CPAP may contribute to improved long-term respiratory outcomes among preterm infants.

Exome sequencing of extreme phenotypes in bronchopulmonary dysplasia Hadchouel A, Decobert F, Besmond C, et al. *Eur J Pediatr.*

The authors selected 6 infants born very preterm with severe bronchopulmonary dysplasia and 8 very preterm born controls for exome sequencing. They were unable to identify any rare variant shared by several infants with an extremely severe phenotype. These results are not consistent with the role of rare causative variants in bronchopulmonary dysplasia's development and argue for the highly polygenic nature of susceptibility of this disorder.

Simvastatin attenuates lung functional and vascular effects of hyperoxia in preterm rabbits Salaets T, Tack B, Jimenez J, et al. *Pediatr Res.*

The authors used transcriptome analysis in a preterm rabbit model for BPD to identify dysregulation of key genes for inflammation, vascular growth and lung development which could be prevented by simvastatin. They found that simvastatin partially prevented the effect of hyperoxia on lung function. Simvastatin completely prevented hyperoxia-induced arterial remodeling, in association with partial restoration of VEGFA and VEGF receptor 2 (VEGFR2) expression, but decreased survival in pups exposed to normoxia, but not to hyperoxia.

Baby NINJA (nephrotoxic injury negated by just-in-time action): reduction of nephrotoxic medicationassociated acute kidney injury in the neonatal intensive care unit Stoops C, Stone S, Evans E, et al. *J Pediatr*.

This is a single center quality improvement project aimed at reducing nephrotoxic medication use in a level IV NICU to prevent nephrotoxic-induced AKI using surveillance for nephrotoxic medication exposure. Such high-risk infants meeting the criteria were monitored using serial serum creatinine levels. The authors report reductions in nephrotoxic medication use (from 16.4 to 9.6 per 1000 patient-days; P = 0.03), nephrotoxic medication-AKI (from 30.9% to 11.0% P < 0.001), and in AKI intensity from 9.1 to 2.9 per 100 patient-days (P < .001) using a systematic surveillance program. The study concludes that systematically identifying such high-risk infants can prevent nephrotoxic-induced AKI.

A multicentered randomized study on early versus rescue Calsurf administration for the treatment of respiratory distress syndrome in preterm infants Pong 7. Chang L. Chang H. et al. Am | Peringtol

Rong Z, Chang L, Cheng H, et al. Am J Perinatol.

The authors report a multicenter randomized control trial comparing early and rescue Calsurf administration in preterm infants with RDS. The study included 305 infants between 26.0 to 32.6 weeks gestation who required nCPAP at birth. In the early group (n=154), neonates were intubated-given surfactant and extubated (INSURE) while in the rescue group (n=151), neonates were given Calsurf after clinical manifestation. Reintubation rates (within 72 hours) and incidence of bronchopulmonary dysplasia were not significantly different between the two groups.

<u>Oral propranolol in prevention of severe retinopathy of prematurity: a systematic review and metaanalysis</u>

Stritzke A, Kabra N, Kaur S, et al. J Perinatol.

The authors conducted a meta-analysis to determine the efficacy of oral propranolol treatment in prevention of severe retinopathy of prematurity (ROP) in premature infants born ≤32 weeks gestational

age. Six studies (five clinical trials and one observational study) including 461 infants met inclusion criteria using propranolol. Systematic assessment of studies showed that prophylactic oral propranolol appeared to be effective in preventing severe ROP in premature infants ≤32 weeks gestational age. Additional well powered, multinational, randomized control trials reporting on long-term outcomes are needed.

Duration of significant patent ductus arteriosus and bronchopulmonary dysplasia in extremely preterm infants

Mirza H, Garcia J, McKinley G, et al. J Perinatol.

The authors sought to demonstrate the association between the duration of significant patent ductus arteriosus (PDA) and bronchopulmonary dysplasia (BPD) in extremely preterm infants. To this end, 273 extremely preterm infants (<29 weeks) whose PDA status was confirmed at <7 days of life were included. The study cohort was divided into four groups based on the duration of significant PDA (147 no PDA, 50 PDA <1 week, 35 PDA 1-2 weeks, and 41 PDA >2 weeks). Longer duration of significant PDA was associated with a higher risk for BPD/death in extremely preterm infants.

Neonatal antifungal consumption is dominated by prophylactic use; outcomes from the pediatric antifungal stewardship: optimizing antifungal prescription study Ferreras-Antolín L, Irwin A, Atra A, et al. *Pediatr Infect Dis J.*

This retrospective study included 280 infants (≤90 days of age) from 12 centers in England who received systemic antifungals. The authors found that antifungals were prescribed for a prophylactic reason in 79.6% of infants and that fluconazole was the most common antifungal used (76.7% of all prescriptions). Finally, the authors noted that the number of microbiologic proven invasive candidiasis was low: 5.4%.

Pediatrics

Measles antibody levels in young infants https://www.ncbi.nlm.nih.gov/pubmed/31753911 Establishing new norms for developmental milestones https://www.ncbi.nlm.nih.gov/pubmed/31727860 Prenatal and infancy nurse home visiting and 18-year outcomes of a randomized trial https://www.ncbi.nlm.nih.gov/pubmed/31748254 Prenatal and infancy nurse home visiting effects on mothers: 18-year follow-up of a randomized trial https://www.ncbi.nlm.nih.gov/pubmed/31748253 Early-life predictors of fetal alcohol spectrum disorders https://www.ncbi.nlm.nih.gov/pubmed/31744890 Neonatal provider workforce (Technical report- Committee of Fetus and Newborn) (PDF) https://pediatrics.aappublications.org/content/pediatrics/144/6/e20193147.full.pdf Ethical issues in newborn sequencing research: the case study of BabySeq https://www.ncbi.nlm.nih.gov/pubmed/31719124

Journal of Pediatrics

Human milk use in the preoperative period is associated with a lower risk for necrotizing enterocolitis in neonates with complex congenital heart disease https://www.ncbi.nlm.nih.gov/pubmed/31561958 Chronology and determinants of respiratory function changes following administration of systemic

Chronology and determinants of respiratory function changes following administration of systemic postnatal corticosteroids in extremely preterm infants https://www.ncbi.nlm.nih.gov/pubmed/31500862 Improved neurodevelopmental outcomes associated with bovine milk fat globule membrane and lactoferrin in infant formula: a randomized, controlled trial

https://www.ncbi.nlm.nih.gov/pubmed/31668885

Trends in outcomes for neonates born very preterm and very low birth weight in 11 high-income countries

https://www.ncbi.nlm.nih.gov/pubmed/31587861

Developmental outcomes of extremely preterm infants with a need for child protective services supervision

https://www.ncbi.nlm.nih.gov/pubmed/31500860

Nutrition, growth, brain volume, and neurodevelopment in very preterm children <u>https://www.ncbi.nlm.nih.gov/pubmed/31561956</u>

The impact of severe maternal morbidity on very preterm infant outcomes https://www.ncbi.nlm.nih.gov/pubmed/31519443

Adverse birth outcomes and birth telomere length: a systematic review and meta-analysis

https://www.ncbi.nlm.nih.gov/pubmed/31630890

Brain injury in infants with critical congenital heart disease: insights from two clinical cohorts with different practice approaches

https://www.ncbi.nlm.nih.gov/pubmed/31451185

Predicting long-term survival without major disability for infants born preterm https://www.ncbi.nlm.nih.gov/pubmed/31493909

Antenatal steroid exposure, aerobic fitness, and physical activity in adolescents born preterm with very low birth weight

https://www.ncbi.nlm.nih.gov/pubmed/31604627

Efficacy of high-flow nasal cannula vs standard oxygen therapy or nasal continuous positive airway pressure in children with respiratory distress: a meta-analysis

https://www.ncbi.nlm.nih.gov/pubmed/31570155

Baby NINJA (nephrotoxic injury negated by just-in-time action): reduction of nephrotoxic medicationassociated acute kidney injury in the neonatal intensive care unit https://www.ncbi.nlm.nih.gov/pubmed/31761141

Pediatric Research

Short-term effects of early initiation of magnesium infusion combined with cooling after hypoxia– ischemia in term piglets

https://www.ncbi.nlm.nih.gov/pubmed/31357208

Tissue damage in the heart after cardiac arrest induced by asphyxia and hemorrhage in newborn pigs <u>https://www.ncbi.nlm.nih.gov/pubmed/31336381</u>

New insights into neonatal coagulation: normal clot formation despite lower intra-clot thrombin levels <u>https://www.ncbi.nlm.nih.gov/pubmed/31404918</u>

Vitamin D status among preterm infants with cholestasis and metabolic bone disease <u>https://www.ncbi.nlm.nih.gov/pubmed/31330529</u>

A transformation of oxygen saturation (the saturation virtual shunt) to improve clinical prediction model calibration and interpretation

https://www.ncbi.nlm.nih.gov/pubmed/31382268

Non-contact heart and respiratory rate monitoring of preterm infants based on a computer vision system: a method comparison study

https://www.ncbi.nlm.nih.gov/pubmed/31351437

Very preterm neonates receiving "aggressive" nutrition and early nCPAP had similar long-term respiratory outcomes as term neonates (PDF)

https://www.nature.com/articles/s41390-019-0514-5.pdf

Colonization by B. infantis EVC001 modulates enteric inflammation in exclusively breastfed infants (PDF) <u>https://www.nature.com/articles/s41390-019-0533-2.pdf</u>

Early life antecedents of positive child health among 10-year-old children born extremely preterm (PDF) <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6802282/pdf/nihms-1526944.pdf</u>

Journal of Perinatology

Finally, a tool to address extubation anxiety!

https://www.ncbi.nlm.nih.gov/pubmed/31624323

Oral propranolol in prevention of severe retinopathy of prematurity: a systematic review and metaanalysis

https://www.ncbi.nlm.nih.gov/pubmed/31570797

The impact of decision quality on mental health following periviable delivery

https://www.ncbi.nlm.nih.gov/pubmed/31209275

Risk of hospitalization for common neonatal morbidities in preterm and term infants: assessing the impact of one or more major congenital anomalies

https://www.ncbi.nlm.nih.gov/pubmed/31395956

Infant mortality: the contribution of genetic disorders

https://www.ncbi.nlm.nih.gov/pubmed/31395954

Apgar score of 0 at 10 min and survival to 1 year of age: a retrospective cohort study in Washington state

https://www.ncbi.nlm.nih.gov/pubmed/31388116

Delivery room asphyxia in neonates with ductal-dependent congenital heart disease: a retrospective cohort study

https://www.ncbi.nlm.nih.gov/pubmed/31434996

Resuscitation outcomes of infants that do not achieve a 5 min target SpO2 saturation <u>https://www.ncbi.nlm.nih.gov/pubmed/31488904</u>

Early palliative care reduces stress in parents of neonates with congenital heart disease: validation of the "Baby, Attachment, Comfort Interventions"

https://www.ncbi.nlm.nih.gov/pubmed/31488903

Duration of significant patent ductus arteriosus and bronchopulmonary dysplasia in extremely preterm infants

https://www.ncbi.nlm.nih.gov/pubmed/31554913

Echocardiographic prediction of severe pulmonary hypertension in neonates undergoing therapeutic hypothermia for hypoxic-ischemic encephalopathy

https://www.ncbi.nlm.nih.gov/pubmed/31471580

A predictive model for extubation readiness in extremely preterm infants

https://www.ncbi.nlm.nih.gov/pubmed/31455825

Patterns of phlebotomy blood loss and transfusions in extremely low birth weight infants https://www.ncbi.nlm.nih.gov/pubmed/31582812

Improving neonatal resuscitation in Tennessee: a large-scale, quality improvement project https://www.ncbi.nlm.nih.gov/pubmed/31417143

The Growth and Development Unit. A proposed approach for enhancing infant neurodevelopment and family-centered care in the Neonatal Intensive Care Unit

https://www.ncbi.nlm.nih.gov/pubmed/31582813

Is prophylaxis with early low-dose hydrocortisone in very preterm infants effective in preventing bronchopulmonary dysplasia?

https://www.ncbi.nlm.nih.gov/pubmed/31471578

American Journal of Perinatology

Early postnatal IGF-1 and IGFBP-1 blood levels in extremely preterm infants: Relationships with indicators of placental insufficiency and with systemic inflammation https://www.ncbi.nlm.nih.gov/pubmed/30685870

A genome-wide analysis of clinical chorioamnionitis among preterm infants <u>https://www.ncbi.nlm.nih.gov/pubmed/30674050</u>

Perinatal factors affecting coagulation parameters at birth in preterm and term neonates: A retrospective cohort study

https://www.ncbi.nlm.nih.gov/pubmed/30703808

Birth size and gestational age specific outcomes of inhaled nitric oxide therapy in preterm neonates with clinically diagnosed pulmonary hypertension

https://www.ncbi.nlm.nih.gov/pubmed/30674051

Validation of the Siggaard–Andersen acid–base nomogram for Hemoglobin F: Implications for fetal cord blood gas analysis

https://www.ncbi.nlm.nih.gov/pubmed/30674052

A multicentered randomized study on early versus rescue Calsurf administration for the treatment of respiratory distress syndrome in preterm infants

https://www.ncbi.nlm.nih.gov/pubmed/30716790

Weight-based guide overestimates endotracheal tube tip position in extremely preterm infants <u>https://www.ncbi.nlm.nih.gov/pubmed/30780185</u>

Does postmenstrual age affect medical patent ductus arteriosus treatment success in preterm infants? <u>https://www.ncbi.nlm.nih.gov/pubmed/30726998</u>

Methemoglobinemia associated with late-onset neonatal sepsis: A single-center experience https://www.ncbi.nlm.nih.gov/pubmed/30708394

Mindfulness training among parents with preterm neonates in the neonatal intensive care unit: A pilot study

https://www.ncbi.nlm.nih.gov/pubmed/30703809

Useful platelet indices for the diagnosis and follow-up of patent ductus arteriosus https://www.ncbi.nlm.nih.gov/pubmed/31087312

Maternal Health, Neonatology and Perinatology

Induction of labor and early-onset sepsis guidelines: impact on NICU admissions in Erie County, NY (PDF) <u>https://mhnpjournal.biomedcentral.com/track/pdf/10.1186/s40748-019-0114-8</u>

<u>Neoreviews</u>

Psychosocial stress and adversity: effects from the perinatal period to adulthood https://neoreviews.aappublications.org/content/20/12/e686 Renal replacement therapy in neonates https://neoreviews.aappublications.org/content/20/12/e697 Evaluation and long-term management of neurogenic bladder in spinal dysraphism https://neoreviews.aappublications.org/content/20/12/e711 The effect of preterm birth on renal development and renal health outcome https://neoreviews.aappublications.org/content/20/12/e725 Case 1: Lethal pulmonary hemorrhage in a 3-day-old term infant https://neoreviews.aappublications.org/content/20/12/e737 Case 2: A newborn with a changing rash https://neoreviews.aappublications.org/content/20/12/e740 Case 3: Sudden unexpected collapse in a full-term infant https://neoreviews.aappublications.org/content/20/12/e744 Strip of the month: torsed or not? https://neoreviews.aappublications.org/content/20/12/e748 An extremely premature newborn with cutaneous lesions https://neoreviews.aappublications.org/content/20/12/e757 A neonate with precordial pulsations https://neoreviews.aappublications.org/content/20/12/e761

JAMA Pediatrics

Association of widespread adoption of the 39-week rule with overall mortality due to stillbirth and infant death

https://www.ncbi.nlm.nih.gov/pubmed/31657852

Breastfeeding trends by race/ethnicity among US children born from 2009 to 2015 <u>https://www.ncbi.nlm.nih.gov/pubmed/31609438</u>

BMC Pediatrics

G6PD genetic variations in neonatal Hyperbilirubinemia in Indonesian Deutromalay population (PDF) <u>https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1882-z.pdf</u>

Association of cleft lip and palate on mother-to-infant bonding: a cross-sectional study in the Japan Environment and Children's Study (JECS) (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1877-9.pdf

Prepregnancy obesity is associated with cognitive outcomes in boys in a low-income, multiethnic birth cohort (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1853-4.pdf

Neonatal mortality and its determinates in public hospitals of Gamo and Gofa zones, southern Ethiopia: prospective follow up study (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1881-0.pdf

Communication between mothers and health workers is important for quality of newborn care: a qualitative study in neonatal units in district hospitals in South Africa (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1874-z.pdf

Maternal H. pylori seropositivity is associated with gestational hypertension but is irrelevant to fetal growth and development in early childhood (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1863-2.pdf

Application value of three-dimensional arterial spin labeling perfusion imaging in investigating cerebral blood flow dynamics in normal full-term neonates (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1876-x.pdf

Neonatal body composition by air displacement plethysmography in healthy term singletons: a systematic review (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1867-y.pdf

Colon stenosis due to acute neonatal appendicitis in a preterm baby: a case report (PDF) https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1873-0.pdf

Neonatal body composition: crossectional study in healthy term singletons in Germany (PDF) <u>https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1837-4.pdf</u>

Changes in incidence and etiology of early-onset neonatal infections 1997–2017 – a retrospective cohort study in western Sweden (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1866-z.pdf

The maternal antibody against diphtheria, tetanus and pertussis showed distinct regional difference in China (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1860-5.pdf

Prenatal and neonatal factors involved in the development of childhood allergic diseases in Guangzhou primary and middle school students (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1865-0.pdf

Analyses of pathological cranial ultrasound findings in neonates that fall outside recent indication guidelines: results of a population-based birth cohort: survey of neonates in Pommerania (SNiP-study) (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1843-6.pdf

Differences in attitudes to feeding post repair of Gastroschisis and development of a standardized feeding protocol (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1858-z.pdf

Can early surgery improve the outcome of patients with meconium peritonitis? A single-center experience over 16 years (PDF)

https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1844-5.pdf

Comparison of family centered care with family integrated care and mobile technology (mFICare) on preterm infant and family outcomes: a multi-site quasi-experimental clinical trial protocol (PDF) https://link.springer.com/content/pdf/10.1186%2Fs12887-019-1838-3.pdf

Pediatric Critical Care Medicine

Volume guaranteed ventilation during neonatal transport https://www.ncbi.nlm.nih.gov/pubmed/31453987

Outcomes of infants supported with extracorporeal membrane oxygenation using centrifugal versus roller pumps: an analysis from the extracorporeal life support organization registry https://www.ncbi.nlm.nih.gov/pubmed/31567621

Editorial: there and back again: roller pumps versus centrifugal technology in infants on extracorporeal membrane oxygenation

https://www.ncbi.nlm.nih.gov/pubmed/31804441

New England Journal of Medicine

Images in clinical medicine: Neonatal hydrocolpos https://www.ncbi.nlm.nih.gov/pubmed/31826342

Lancet

Epileptic encephalopathies of infancy: welcome advances https://www.ncbi.nlm.nih.gov/pubmed/31862247 Universal birth registration by 2030: progress and challenges https://www.ncbi.nlm.nih.gov/pubmed/31839280

<u>JAMA</u>

Effect of fresh vs standard-issue red blood cell transfusions on multiple organ dysfunction syndrome in critically ill pediatric patients: Randomized clinical trial https://www.ncbi.nlm.nih.gov/pubmed/31821429 Association between fertility treatment and cancer risk in children https://www.ncbi.nlm.nih.gov/pubmed/31821429

<u>BMJ</u>

Does general anesthesia affect neurodevelopment in infants and children? <u>https://www.ncbi.nlm.nih.gov/pubmed/31818811</u> Maternal diabetes during pregnancy and early onset of cardiovascular disease in offspring: population based cohort study with 40 years of follow-up <u>https://www.ncbi.nlm.nih.gov/pubmed/31801789</u>

Pediatric Infectious Disease Journal

Neonatal antifungal consumption Is dominated by prophylactic use; Outcomes from the pediatric antifungal stewardship: Optimizing antifungal prescription study <u>https://www.ncbi.nlm.nih.gov/pubmed/31568253</u> Growth patterns in children with congenital cytomegalovirus infection <u>https://www.ncbi.nlm.nih.gov/pubmed/31738339</u> Neonatal meningitis and subdural empyema caused by an unusual pathogen <u>https://www.ncbi.nlm.nih.gov/pubmed/31738340</u> Early-onset sepsis among preterm neonates in China, 2015 to 2018 <u>https://www.ncbi.nlm.nih.gov/pubmed/31738341</u>

Pediatric Cardiology

Umbilical cord blood gas in newborns with prenatal diagnosis of congenital heart disease: Insight into inutero and delivery hemodynamics <u>https://www.ncbi.nlm.nih.gov/pubmed/31471626</u>

Cardiac Troponin T in healthy full-term infants

https://www.ncbi.nlm.nih.gov/pubmed/31489446

Left ventricular diastolic dysfunction and diastolic heart failure in preterm infants

https://www.ncbi.nlm.nih.gov/pubmed/31598743

Pediatric Neurology

Implementation of neonatal neurocritical care program improved short-term outcomes in neonates with moderate-to-severe hypoxic ischemic encephalopathy

https://www.ncbi.nlm.nih.gov/pubmed/31047757

Neuron-specific enolase in cerebrospinal fluid predicts brain injury after sudden unexpected postnatal collapse

https://www.ncbi.nlm.nih.gov/pubmed/31023601

Obstetrics and Gynecology

Stillbirth associated with infection in a diverse U.S. cohort <u>https://www.ncbi.nlm.nih.gov/pubmed/31764728</u> Maternal zika virus infection: Association with small-for-gestational-age neonates and preterm birth <u>https://www.ncbi.nlm.nih.gov/pubmed/31764729</u> Maternal and perinatal morbidity and mortality associated with anemia in pregnancy <u>https://www.ncbi.nlm.nih.gov/pubmed/31764734</u> Subsequent pregnancy outcomes after failed vacuum-assisted delivery <u>https://www.ncbi.nlm.nih.gov/pubmed/31764735</u>

American Journal of Obstetrics & Gynecology

Editorial: Vasa previa: time to make a difference (PDF)

https://www.ajog.org/article/S0002-9378(19)31036-1/pdf

The fetal origins of mental illness

https://www.ncbi.nlm.nih.gov/pubmed/31207234

The impact of occupational shift work and working hours during pregnancy on health outcomes: a systematic review and meta-analysis

https://www.ncbi.nlm.nih.gov/pubmed/31276631

Fetal electrocardiography ST-segment analysis for intrapartum monitoring: a critical appraisal of conflicting evidence and a way forward

https://www.ncbi.nlm.nih.gov/pubmed/30980794

Opioids affect the fetal brain: reframing the detoxification debate

https://www.ncbi.nlm.nih.gov/pubmed/31323217

The combined impact of maternal age and body mass index on cumulative live birth following in vitro fertilization

https://www.ncbi.nlm.nih.gov/pubmed/31163133

Fetal growth patterns in pregnancy-associated hypertensive disorders: NICHD Fetal Growth Studies (PDF)

https://www.ajog.org/article/S0002-9378(19)30792-6/pdf

First stage of labor progression in women with large-for-gestational age infants <u>https://www.ncbi.nlm.nih.gov/pubmed/31238039</u>

Prediction of spontaneous vaginal delivery in nulliparous women with a prolonged second stage of labor: the value of intrapartum ultrasound

https://www.ncbi.nlm.nih.gov/pubmed/31589867 Vasa previa: a multicenter retrospective cohort study https://www.ncbi.nlm.nih.gov/pubmed/31201807 Frequency of spontaneous resolution of vasa previa with advancing gestational age https://www.ncbi.nlm.nih.gov/pubmed/31233708 In utero exposure to antibiotics and risk of congenital malformations: a population-based study https://www.ncbi.nlm.nih.gov/pubmed/31260651 Letters: Unexpected term NICU admissions: a marker of obstetrical care quality? (PDF) https://www.ajog.org/article/S0002-9378(19)31033-6/pdf

ADDITIONAL JOURNAL SELECTIONS

Glucocorticoids equally stimulate epithelial Na transport in male and female fetal alveolar cells Laube M, Riedel D, Ackermann B, et al. *Int J Mol Sci.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31861781</u>

How to ventilate preterm infants with lung compliance close to circuit compliance: real-time simulations on an infant hybrid respiratory simulator Stankiewicz B, Pałko KJ, Darowski M, et al. *Med Biol Eng Comput.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31853776</u>

Exome sequencing of extreme phenotypes in bronchopulmonary dysplasia Hadchouel A, Decobert F, Besmond C, et al. *Eur J Pediatr.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31848748</u>

Severe but not moderate hyperoxia of newborn mice causes an emphysematous lung phenotype in adulthood without persisting oxidative stress and inflammation Kindermann A, Binder L, Baier J, et al. *BMC Pulm Med.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31842840</u>

Simvastatin attenuates lung functional and vascular effects of hyperoxia in preterm rabbits Salaets T, Tack B, Jimenez J, et al. *Pediatr Res.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31816623</u>

An in-line high frequency flow interrupter applied to nasal CPAP: Improved carbon dioxide clearance in a premature infant lung model Sivieri EM, Eichenwald EC, Rub DM, et al. *Pediatr Pulmonol.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31469253</u>

Long-term neurological effects of neonatal caffeine treatment in a rabbit model of preterm birth Van der Veeken L, Grönlund S, Gerdtsson E, et al. *Pediatr* Res. <u>https://www.ncbi.nlm.nih.gov/pubmed/31812154</u>

Mitochondrial DNA variation modulates alveolar development in newborn mice exposed to hyperoxia Kandasamy J, Rezonzew G, Jilling T, et al. *Am J Physiol Lung Cell Mol Physiol.* <u>https://www.ncbi.nlm.nih.gov/pubmed/31432715</u>

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