Publications Working Group
Ayan Rajgarhia, Page Editor - Children's Mercy Hospital
Jonathan P. Mintzer - Stony Brook Children's Hospital
Jayasree Nair - University at Buffalo
Craig Nankervis - Nationwide Children's Hospital
Christopher Rouse - The Elliot Hospital + USUHS
Jeffrey Shenberger - Brenner Children's Hospital/Wake Forest School of Medicine
Mark Weems - University of Tennessee Health Science Center
Ranjith Kamity - NYU Winthrop Hospital

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

Section on Neonatal-Perinatal Medicine

ARTICLES OF INTEREST – October 2019

Use of a modified early-onset sepsis risk calculator for neonates exposed to chorioamnionitis
Sloane AJ, Coleman C, Carola DL, et al. *J Pediatr.*

The authors sought to validate the recently modified Kaiser Permanente early-onset sepsis (EOS) calculator with a higher baseline incidence in chorioamnionitis exposed neonates. The risk and management categories were calculated using the calculator with an EOS incidence of 4/1000. The results were compared with a previous analysis of the same cohort that used an EOS incidence of 0.5/1000. When using an EOS risk of 4 of 1000 in infants exposed to mothers with chorioamnionitis, the EOS calculator has the ability to capture an increased number of neonates with culture-positive EOS. However, this change also leads to nearly a 3-fold increase in the use of empiric antibiotics and an evaluation with blood culture in almost all infants born to mothers with chorioamnionitis.

Morbidity of persistent pulmonary hypertension of the newborn in the first year of life
Steurer MA, Baer RJ, Oltman S, et al. *J Pediatr.*

This population-based study examined an administrative database which included 7,847 infants, ≥34 weeks' gestational age diagnosed with PPHN between 2005 to 2012 in California. The primary outcome was defined as post-discharge mortality or hospital readmission during the first year of life. Compared to 2,477 infants without PPHN, infants with mild PPHN had an adjusted risk ratio of 2.2 (95% CI, 2.0-2.5), infants with congenital diaphragmatic hernia as an etiology for PPHN had an adjusted risk ratio of 8.6 (95% CI, 7.0-10.6), and infants with meconium aspiration syndrome as an etiology had an adjusted risk ratio of 4.0 (95% CI, 3.6-4.4)

Repurposing azithromycin for neonatal neuroprotection
Barks JDE, Liu Y, Wang L, et al. *Pediatr Res.*

Using a neonatal rodent model of hypoxic ischemic brain injury, the authors evaluated the neuroprotective efficacy of azithromycin, a widely available antibiotic with anti-inflammatory properties. Effects of various doses as well as timing of administration was also evaluated. Outcomes included measures of sensorimotor function and brain damage by neuropathology. All azithromycin doses improved function and reduced brain damage compared to saline controls, with dose dependent efficacy and improved outcomes noted with 3 injections over 48hrs. The authors concluded that with their result demonstrating improved functional and neuropathology outcomes, azithromycin is an attractive candidate drug to evaluate for neonatal neuroprotection in clinical trials.

Elective induction of labor at 39 weeks compared with expectant management: a meta-analysis of cohort studies
Grobman WA and Caughey AB. *Am J Obstet Gynecol.*

In this systematic review and meta-analysis of 6 cohort studies, the authors sought to assess whether elective induction of labor at 39 weeks among low-risk nulliparous women has reduced the chance of cesarean and other adverse maternal and perinatal outcomes, outside of research settings. They identified 6 cohort studies out of the initial 375 studies shortlisted that met inclusion criteria, with 66,019 women undergoing elective labor induction at 39 weeks and 584,390 undergoing expectant management. Elective induction at 39 weeks was associated with a significantly lower frequency of cesarean delivery, peripartum infection, neonatal respiratory morbidity, meconium aspiration syndrome NICU admission and perinatal mortality.

Controlled trial of two incremental milk-feeding rates in preterm infants
Dorling J, Abbott J, Berrington J, et al. *N Engl J Med.*

This is a prospective multicenter randomized control trial comparing slower feed increments (18ml/kg/day) to faster increments (30ml/kg/day) involving 2804 infants (born <32 weeks or <1500g) born between 2013 to 2015 from 55 hospitals. The faster group reached full feeds at a median of 7 days vs 9 days in slower group. The study showed no significant difference in survival without moderate or severe neurodevelopmental disability at 24 months (68.1% vs 65.5%, slower vs faster increment groups respectively; p=0.16). Late onset sepsis, necrotizing enterocolitis, death during hospitalization, weight and head-circumference at discharge were not different between the groups.

Prevalence of survival without major comorbidities among adults born prematurely
Crump C, Winkleby MA, Sundquist J, et al. *JAMA.*

This is a national cohort study of all 2 566 699 persons born in Sweden between 1973 and 1997, followed up for survival and comorbidities through December 2015. Median age was 29.8 years at the end of the study. The Adolescent and Young Adult Health Outcomes and Patient Experience (AYA HOPE) Comorbidity Index was used to define comorbidities. Further stratification of the 5.8% born preterm showed that 54.6% were alive with no comorbidities vs 63% for persons born full term, with a much lower prevalence of 22.3% for those born extremely preterm. The study concluded that majority survived to adulthood without major comorbidities, with significantly worse outcomes in those born extremely preterm.

Surfactant plus budesonide decreases lung and systemic responses to injurious ventilation in preterm sheep
Hillman NH, Kothe TB, Schmidt AF, et al. Am J Physiol Lung Cell Mol Physiol.

To test whether Budesonide and surf (surf) would decrease the injury from injurious and normal tidal volume (VT) ventilation, the authors exposed preterm sheep to normal VT + surf (prior to ventilation) or injurious VT (high pressure, 100% O2 prior to surf + saline or surf + budesonide). They found that the addition of budesonide to surf improved lung physiology, and decreased pro-inflammatory cytokines in the lung, liver, and brain to levels similar to lambs receiving normal VT.

Impact of peri-intraventricular haemorrhage and periventricular leukomalacia in the neurodevelopment of preterms: A systematic review and meta-analysis.
Gotardo JW, Volkmer NFV, Stangler GP, et al. PLoS One.

To determine the impact of PVL and PIVH on the incidence of cerebral palsy (CP) and development impairment in preterm neonates, the authors performed a meta-analysis using established databases. They found no evidence that PIVH causes impairment in neuropsychomotor development though newer studies showed an increased risk for lower intelligence in severe lesions. They also found that children with any PIVH, especially those < 1000 grams and severe PIVH, are at increased risk of developing CP, as well as children with PVL.

Lack of equipoise in the PDA-tolerate trial: a comparison of eligible infants enrolled in the trial and those treated outside the trial
Liebowitz M, Katheria A, Sauberan J, et al. *J Pediatr.*

The PDA-TOLERATE trial randomized infants with moderate or large PDA born <28 weeks to observation or PDA treatment. 202 infants were randomized, and there were no overall differences in any primary or secondary outcome. This report compares the 202 PDA-TOLERATE patients to 137 patients who were not eligible for randomization due to "lack-of-physician-equipoise" (LPE). The LPE group was treated prior to randomization based on a feeling they were too sick to wait for randomization. There were important differences in clinical characteristics between the groups. The LPE group was less mature and required more respiratory support but had earlier closure of the ductus and lower mortality. LPE treatment at ≤5 days of age was associated with decreased mortality and decreased BPD compared to LPE treatment ≥6 days of age. This suggests there may be a benefit of early treatment in a select group of premature neonates; however, optimal timing and patient selection remains unclear.

Pediatrics
Newborn screening for sickle cell disease using point-of-care testing in low-income setting
https://www.ncbi.nlm.nih.gov/pubmed/31530717
Neonatal CPAP for respiratory distress across Malawi and mortality
https://www.ncbi.nlm.nih.gov/pubmed/31540968

Journal of Pediatrics
The holy grail of ascertainment of early-onset neonatal sepsis
https://www.ncbi.nlm.nih.gov/pubmed/31256915
Altered functional brain network integration, segregation, and modularity in infants born very preterm at term-equivalent age
https://www.ncbi.nlm.nih.gov/pubmed/31358292
Volume of neonatal care and survival without disability at 2 years in very preterm infants: results of a French national cohort study
https://www.ncbi.nlm.nih.gov/pubmed/31280891
Parent preferences regarding home oxygen use for infants with bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/31256913
A prospective study of parent health-related quality of life before and after discharge from the neonatal intensive care unit
https://www.ncbi.nlm.nih.gov/pubmed/31256914
Upper airway pathology contributes to respiratory symptoms in children born very preterm
https://www.ncbi.nlm.nih.gov/pubmed/31402143
Use of a modified early-onset sepsis risk calculator for neonates exposed to chorioamnionitis
https://www.ncbi.nlm.nih.gov/pubmed/31208783
Morbidity of persistent pulmonary hypertension of the newborn in the first year of life
https://www.ncbi.nlm.nih.gov/pubmed/31399244

Social adjustment in adolescents born very preterm: evidence for a cognitive basis of social problems
https://www.ncbi.nlm.nih.gov/pubmed/31402139
T-cell receptor excision circles in newborns with congenital heart disease
https://www.ncbi.nlm.nih.gov/pubmed/31277900
Damaging variants in proangiogenic genes impair growth in fetuses with cardiac defects
https://www.ncbi.nlm.nih.gov/pubmed/31227283
Prematurity as an independent risk factor for the development of pulmonary disease
https://www.ncbi.nlm.nih.gov/pubmed/31262531
Making a genetic diagnosis in a level iv neonatal intensive care unit population: who, when, how, and at what cost?
https://www.ncbi.nlm.nih.gov/pubmed/31255390
Percutaneous closure of the patent ductus arteriosus in very low weight infants: considerations following us food and drug administration approval of a novel device
https://www.ncbi.nlm.nih.gov/pubmed/31255391
Lack of equipoise in the PDA-tolerate trial: a comparison of eligible infants enrolled in the trial and those treated outside the trial
https://www.ncbi.nlm.nih.gov/pubmed/31255386
Elevated nucleated red blood cells in neonates with down syndrome and pulmonary hypertension
https://www.ncbi.nlm.nih.gov/pubmed/31262527
Unicoronal synostosis
https://www.ncbi.nlm.nih.gov/pubmed/31255389
Dieulafoy lesion: an unusual cause of excessive gastric bleeding in a neonate
https://www.ncbi.nlm.nih.gov/pubmed/31201025
Myofibroma—a common congenital lesion
https://www.ncbi.nlm.nih.gov/pubmed/31201027

Pediatric Research
Repurposing azithromycin for neonatal neuroprotection
https://www.ncbi.nlm.nih.gov/pubmed/31100754
Increased miR-214 expression suppresses cell migration and proliferation in Hirschsprung disease by interacting with PLAGL2
https://www.nature.com/articles/s41390-019-0324-9
How skin anatomy influences transcutaneous bilirubin determinations: an in vitro evaluation
https://www.nature.com/articles/s41390-019-0471-z
Blunted sympathoadrenal activation accompanies hemodynamic stability after early ventilation and delayed cord clamping at birth in preterm lambs
https://www.ncbi.nlm.nih.gov/pubmed/31181565
Caspase-1 involves in bilirubin-induced injury of cultured rat cortical neurons
https://www.ncbi.nlm.nih.gov/pubmed/31195405
Placental clearance/synthesis of neurobiomarkers GFAP and UCH-L1 in healthy term neonates and those with moderate–severe neonatal encephalopathy
https://www.ncbi.nlm.nih.gov/pubmed/31132788
Fetal exposure to mercury and lead from intrauterine blood transfusions
https://www.ncbi.nlm.nih.gov/pubmed/31216568
Cerebral oxygenation and blood flow in normal term infants at rest measured by a hybrid near-infrared device (BabyLux)
https://www.ncbi.nlm.nih.gov/pubmed/31234195
Comparison of the INTERGROWTH-21st standard and a new reference for head circumference at birth among newborns in Southern China
https://www.ncbi.nlm.nih.gov/pubmed/31158843
Archives of Disease in Childhood - Fetal & Neonatal Edition
Cardiac arrest with pulseless electrical activity rhythm in newborn infants: a case series (PDF)

https://fn.bmj.com/content/fetalneonatal/104/6/F572.full.pdf
Neonatal outcomes in preterm multiples receiving delayed cord clamping (PDF)
https://fn.bmj.com/content/fetalneonatal/104/6/F575.full.pdf
Respiratory monitors to teach newborn facemask ventilation: a randomised trial
https://www.ncbi.nlm.nih.gov/pubmed/30636691
Aeration strategy at birth influences the physiological response to surfactant in preterm lambs
https://www.ncbi.nlm.nih.gov/pubmed/31498776
Validation of the disposable T-piece resuscitator (Neo-Tee): a bench study
https://www.ncbi.nlm.nih.gov/pubmed/30782967
Rapidly maturing fentanyl clearance in preterm neonates
https://www.ncbi.nlm.nih.gov/pubmed/31498775
New short-term heat inactivation method of cytomegalovirus (CMV) in breast milk: impact on CMV inactivation, CMV antibodies and enzyme activities
https://www.ncbi.nlm.nih.gov/pubmed/30728181
Effects of tracheal occlusion on the neonatal cardiopulmonary transition in an ovine model of diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/30728180
Neonatal cardiopulmonary transition in an ovine model of congenital diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/30728182
Assessing the deprivation gap in stillbirths and neonatal deaths by cause of death: a national population-based study
https://www.ncbi.nlm.nih.gov/pubmed/30842208
Duration of mechanical ventilation and neurodevelopment in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/30894396
Minimally invasive surfactant therapy failure: risk factors and outcome
https://www.ncbi.nlm.nih.gov/pubmed/31036700
One-year outcomes of infants born with congenital diaphragmatic hernia: a national population cohort study
https://www.ncbi.nlm.nih.gov/pubmed/31154421
Cerebral oxygenation and blood flow in term infants during postnatal transition: BabyLux project
https://www.ncbi.nlm.nih.gov/pubmed/31085677
Less invasive surfactant administration (LISA): chances and limitations (PDF)
https://fn.bmj.com/content/fetalneonatal/104/6/F655.full.pdf
Radiological feature of skip-segment Hirschsprung's disease
https://www.ncbi.nlm.nih.gov/pubmed/31401615
Congenital scars: a rare presentation of neonatal lupus
https://www.ncbi.nlm.nih.gov/pubmed/31362938
Scrotal ulcerations in a newborn secondary to unnoticed prenatal intestinal perforation
https://www.ncbi.nlm.nih.gov/pubmed/31273008
Letter: Current clinical practice in neonatologist-performed echocardiography in the UK
https://www.ncbi.nlm.nih.gov/pubmed/30737242
Letter: Tactile stimulation in the delivery room: do we practice what we preach?
https://www.ncbi.nlm.nih.gov/pubmed/30824474
Letter: Compromised pressure and flow during suction mask ventilation
https://www.ncbi.nlm.nih.gov/pubmed/30824473
Letter: 'Catch-up' growth of infants with IUGR does not significantly contribute to the whole-cohort weight gain pattern
https://www.ncbi.nlm.nih.gov/pubmed/31362940

Journal of Perinatology

The journal of perinatology turns a page
https://www.ncbi.nlm.nih.gov/pubmed/31551512
Sleep in infants with myelomeningocele—an opportunity to improve outcomes?
https://www.ncbi.nlm.nih.gov/pubmed/31420583
Transpyloric feeds and bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/31413309
Reply to: Transpyloric feeds and bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/31431655
Postnatal intervention for the treatment of FNAIT: a systematic review
https://www.ncbi.nlm.nih.gov/pubmed/30971767
The association of patient preferences and attitudes with trial of labor after cesarean
https://www.ncbi.nlm.nih.gov/pubmed/31270433
Amniotic fluid transitioning from clear to meconium stained during labor—prevalence and association with adverse maternal and neonatal outcomes
https://www.ncbi.nlm.nih.gov/pubmed/31320720
Health related quality of life (HRQoL) in mothers of premature infants at NICU discharge
https://www.ncbi.nlm.nih.gov/pubmed/31417142
Automated movement analysis to predict motor impairment in preterm infants: a retrospective study
https://www.ncbi.nlm.nih.gov/pubmed/31431653
Racial association and pharmacotherapy in neonatal opioid withdrawal syndrome
https://www.ncbi.nlm.nih.gov/pubmed/31388115
Treating infants with neonatal abstinence syndrome: an examination of three protocols
https://www.ncbi.nlm.nih.gov/pubmed/31383946
Extracorporeal membrane oxygenation and bloodstream infection in congenital diaphragmatic hernia
https://www.ncbi.nlm.nih.gov/pubmed/31383944
Families as educators: a family-centered approach to teaching communication skills to neonatology fellows
https://www.ncbi.nlm.nih.gov/pubmed/31371832
Transferring preterm infants into an open cot using a heated mattress at ≤ 1400 g
https://www.ncbi.nlm.nih.gov/pubmed/31388119
Tube feeding outcomes of infants in a Level IV NICU
https://www.ncbi.nlm.nih.gov/pubmed/31388118
Sleep-disordered breathing: an under-recognized problem in infants with myelomeningocele defects regardless of timing of repair
https://www.ncbi.nlm.nih.gov/pubmed/31320719
Prevention of excessive hypothermia in infants with hypoxic ischemic encephalopathy prior to admission to a quaternary care center: a neonatal outreach educational project
https://www.ncbi.nlm.nih.gov/pubmed/31092886
Journal Club: Morphine compared to placebo for procedural pain in preterm infants: safety, efficacy and equipoise
https://www.nature.com/articles/s41372-019-0476-9.pdf
Response to Dr. Kumar: Cord milking in preterm
https://www.ncbi.nlm.nih.gov/pubmed/31413310

Neonatology

Evidence-based practice: improving the quality of perinatal care
https://www.ncbi.nlm.nih.gov/pubmed/31167207
Heart rate monitoring in newborn babies: a systematic review (PDF)
https://www.karger.com/article/pdf/499675
Surfactant administration via thin catheter: a practical guide
https://www.ncbi.nlm.nih.gov/pubmed/31461712
Neurodevelopmental outcomes in preterm infants with white matter injury using a new MRI classification
https://www.ncbi.nlm.nih.gov/pubmed/31108490
Patent ductus arteriosus and the effects of its late closure in preterm infants with severe bronchopulmonary dysplasia (PDF)
https://www.karger.com/article/pdf/500269
The clinical risk index for babies ii for prediction of time-dependent mortality and short-term morbidities in very low birth weight infants
https://www.ncbi.nlm.nih.gov/pubmed/31307048
Delayed cord clamping versus early cord clamping in elective cesarean section: a randomized controlled trial
https://www.ncbi.nlm.nih.gov/pubmed/31266035
Cardiac output measurement using the ultrasonic cardiac output monitor: a validation study in newborn infants
https://www.ncbi.nlm.nih.gov/pubmed/31326967
Immune system regulation affected by a murine experimental model of bronchopulmonary dysplasia: genomic and epigenetic findings
https://www.ncbi.nlm.nih.gov/pubmed/31454811
Cardiorespiratory physiology following minimally invasive surfactant therapy in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31487729
Commentary on “infant formulas containing hydrolysed protein for prevention of allergic disease and food allergy” (PDF)
https://www.karger.com/article/pdf/495316
Mitochondrial disease caused by a novel homozygous mutation (gly106del) in the sco1 gene
https://www.ncbi.nlm.nih.gov/pubmed/31352446
Life-threatening extreme methemoglobinemia during standard dose nitric oxide therapy
https://www.ncbi.nlm.nih.gov/pubmed/31454813
Topical coconut oil contributes to systemic monolaurin levels in very preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31330518
Developmental outcomes following topical coconut oil in very preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31401634

American Journal of Perinatology

The accuracy and cost-effectiveness of selective fetal echocardiography for the diagnosis of congenital heart disease in patients with pregestational diabetes stratified by hemoglobin A1C
https://www.ncbi.nlm.nih.gov/pubmed/30991442
Sex-specific differences in late preterm neonatal outcomes
https://www.ncbi.nlm.nih.gov/pubmed/30991441
Health care professionals' perceptions about sensory-based interventions in the NICU
https://www.ncbi.nlm.nih.gov/pubmed/30577058
Pilot study of pharyngoesophageal dysmotility mechanisms in dysphagic infants of diabetic mothers
https://www.ncbi.nlm.nih.gov/pubmed/30577057
Variation in gastrostomy tube placement in premature infants in the United States
https://www.ncbi.nlm.nih.gov/pubmed/30577056

Patterns of preterm birth among women of native Hawaiian and pacific islander descent
https://www.ncbi.nlm.nih.gov/pubmed/30577054
Evolution of the bacillus calmette–guerin scar and its association with birth and pregnancy characteristics in a prospective cohort of infants in Iquitos, Peru
https://www.ncbi.nlm.nih.gov/pubmed/30583300
Understanding state-level variations in the US infant mortality: 2000 to 2015
https://www.ncbi.nlm.nih.gov/pubmed/30583299
Updating a perinatal risk scoring system to predict infant mortality
https://www.ncbi.nlm.nih.gov/pubmed/30593081
Early-onset neonatal sepsis and antibiotic use in northeast Thailand
https://www.ncbi.nlm.nih.gov/pubmed/30597491
Outcomes of congenital diaphragmatic hernia in one of the twins
https://www.ncbi.nlm.nih.gov/pubmed/30609432
Antepartum contraceptive counseling in women with preterm birth
https://www.ncbi.nlm.nih.gov/pubmed/30609431

Maternal Health, Neonatology and Perinatology

Perceptions of health professionals regarding minimally invasive tissue sampling (MITS) to identify the cause of death in stillbirths and neonates: results from a qualitative study (PDF)
https://mhnpjournal.biomedcentral.com/track/pdf/10.1186/s40748-019-0112-x
Application of 4% chlorhexidine to the umbilical cord stump of newborn infants in lower income countries: a systematic review and meta-analysis (PDF)
https://mhnpjournal.biomedcentral.com/track/pdf/10.1186/s40748-019-0111-y

Neoreviews

Historical perspectives: low birthweight and preterm infants in Indonesia
https://neoreviews.aappublications.org/content/20/10/e548
Maternal mortality in the United States: updates on trends, causes, and solutions
https://neoreviews.aappublications.org/content/20/10/e561
Fetal doppler assessment in neonatal care: analysis of fetal doppler abnormalities and neonatal outcomes
https://neoreviews.aappublications.org/content/20/10/e575
Update on prenatal laboratory screening: joint commission required elements
https://neoreviews.aappublications.org/content/20/10/e584
Case 1: apnea and hypotonia in a 1-month-old infant
https://neoreviews.aappublications.org/content/20/10/e592
Case 2: abdominal distention in a term infant with unilateral ventriculomegaly
https://neoreviews.aappublications.org/content/20/10/e594
Case 3: hydrops fetalis, pancytopenia, and hemolytic jaundice in a preterm neonate: a diagnosis made after 3 months
https://neoreviews.aappublications.org/content/20/10/e597
Strip of the month: preterm premature rupture of membranes with recurrent variable decelerations
https://neoreviews.aappublications.org/content/20/10/e600
A neonate with facial asymmetry
https://neoreviews.aappublications.org/content/20/10/e608
Intrauterine fetal transfusion
https://neoreviews.aappublications.org/content/20/10/e612

JAMA Pediatrics

The role of equity in US states' breastfeeding policies
https://www.ncbi.nlm.nih.gov/pubmed/31403682

Association between maternal fluoride exposure during pregnancy and IQ scores in offspring in Canada
https://www.ncbi.nlm.nih.gov/pubmed/31424532

National trends in the provision of human milk at hospital discharge among very low-birth-weight infants
https://www.ncbi.nlm.nih.gov/pubmed/31479097

Risk of wrong-patient orders among multiple vs singleton births in the neonatal intensive care units of 2 integrated health care systems
https://www.ncbi.nlm.nih.gov/pubmed/31449284

BMC Pediatrics

Thyroid dysfunction in preterm infants born before 32 gestational weeks (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1792-0

Clinical findings in congenital infection by Zika virus: a retrospective study in a reference hospital in Central-West Brazil (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1762-6

Effect of skill drills on neonatal ventilation performance in a simulated setting- observation study in Nepal (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1723-0

Prevalence of exclusive breastfeeding practice in the first six months of life and its determinants in Iran: a systematic review and meta-analysis (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1776-0

Nasal continuous positive airway pressure with head cap fixation as a contributing factor to extensive scalp necrosis in a preterm neonate with early-onset sepsis and scalp hematoma (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1721-2

A state-level study of opioid use disorder treatment access and neonatal abstinence syndrome (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1718-x

Immunoreactive trypsinogen levels in newborn screened infants with an inconclusive diagnosis of cystic fibrosis (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1756-4

Identifying medication errors in neonatal intensive care units: a two-center study (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1748-4

Effects of closed-loop automatic control of the inspiratory fraction of oxygen (FiO2-C) on outcome of extremely preterm infants – study protocol of a randomized controlled parallel group multicenter trial for safety and efficacy (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1735-9

Mortality and severe morbidity of very preterm infants: comparison of two French cohort studies (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1700-7

Factors affecting the growth of infants diagnosed with cystic fibrosis by newborn screening (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1727-9

Initial and delayed thyroid-stimulating hormone elevation in extremely low-birth-weight infants (PDF)
https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/s12887-019-1730-1

Pediatric Critical Care Medicine

The effect of levosimendan versus milrinone on the occurrence rate of acute kidney injury following congenital heart surgery in infants: a randomized clinical trial
https://www.ncbi.nlm.nih.gov/pubmed/31274775

Plasma neutrophil gelatinase-associated lipocalin is associated with acute kidney injury and clinical outcomes in neonates undergoing cardiopulmonary bypass
https://www.ncbi.nlm.nih.gov/pubmed/31206501

Short- and long-term outcomes of extremely preterm infants in japan according to outborn/inborn birth status
https://www.ncbi.nlm.nih.gov/pubmed/31232855

New England Journal of Medicine

Modeling the placenta with stem cells
https://www.ncbi.nlm.nih.gov/pubmed/31644851

Controlled trial of two incremental milk-feeding rates in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31597020

JAMA

Prevalence of survival without major comorbidities among adults born prematurely
https://www.ncbi.nlm.nih.gov/pubmed/31638681

Association of maternal gastric bypass surgery with offspring birth defects
https://www.ncbi.nlm.nih.gov/pubmed/31613339

BMJ

Association of early postnatal transfer and birth outside a tertiary hospital with mortality and severe brain injury in extremely preterm infants: observational cohort study with propensity score matching (PDF)
https://www.bmj.com/content/bmj/367/bmj.l5678.full.pdf

Pediatric Cardiology

Assessment of the fetal myocardial performance index in well-controlled gestational diabetics and to determine whether it is predictive of adverse perinatal outcome
https://www.ncbi.nlm.nih.gov/pubmed/31324952

Postnatal outcome following prenatal diagnosis of discordant atrioventricular and ventriculoarterial connections
https://www.ncbi.nlm.nih.gov/pubmed/31342118

Propofol formulation affects myocardial function in newborn infants
https://www.ncbi.nlm.nih.gov/pubmed/31414158

Pediatric Neurology

Recent advances in craniosynostosis
https://www.ncbi.nlm.nih.gov/pubmed/31421914

Hand preference develops across childhood and adolescence in extremely preterm children: the epicure study
https://www.ncbi.nlm.nih.gov/pubmed/31128891

Ictal video-electroencephalography findings in bathing seizures: two new cases and review of the literature
https://www.ncbi.nlm.nih.gov/pubmed/31272783

Corticosteroid therapy in neonatal incontinentia pigmenti with asymptomatic cerebral lesions
https://www.ncbi.nlm.nih.gov/pubmed/31201074

Obstetrics and Gynecology

Exploring inflammatory mediators in fetal and maternal compartments during human parturition
https://www.ncbi.nlm.nih.gov/pubmed/31503157

American Journal of Obstetrics & Gynecology

Elective induction of labor at 39 weeks compared with expectant management: a meta-analysis of cohort studies
https://www.ncbi.nlm.nih.gov/pubmed/30817905

A Core Outcome Set for the prevention and treatment of fetal GROwth restriction: deVeloping Endpoints: the COSGROVE study
https://www.ncbi.nlm.nih.gov/pubmed/31152710

Cervical length and quantitative fetal fibronectin in the prediction of spontaneous preterm birth in asymptomatic women with congenital uterine anomaly
https://www.ncbi.nlm.nih.gov/pubmed/31132343

Evaluation of fetal exposure to external loud noise using a sheep model: quantification of in utero acoustic transmission across the human audio range
https://www.ncbi.nlm.nih.gov/pubmed/31152712

Maternal surgery during pregnancy has a transient adverse effect on the developing fetal rabbit brain
https://www.ncbi.nlm.nih.gov/pubmed/31336075

BASIC SCIENCE SELECTIONS

Impact of early life antibiotic exposure and neonatal hyperoxia on the murine microbiome and lung injury
Althouse MH, Stewart C, Jiang W, et al. *Sci Rep.*
https://www.ncbi.nlm.nih.gov/pubmed/31628395

Leptin and EGF supplementation enhance the immune system maturation in preterm suckling rats suckling rat
Grases-Pintó B, Torres-Castro P, Marín-Morote L, et al. *Nutrients.*
https://www.ncbi.nlm.nih.gov/pubmed/31590415

Peptidomic analysis of hippocampal tissue for explore leptin neuroprotective effect on the preterm ischemia-hypoxia brain damage model rats
Feng E and Jiang L. *Neuropharmacology.*
https://www.ncbi.nlm.nih.gov/pubmed/31580838

Surfactant plus budesonide decreases lung and systemic responses to injurious ventilation in preterm sheep

Hillman NH, Kothe TB, Schmidt AF, et al. *Am J Physiol Lung Cell Mol Physiol.*
https://www.ncbi.nlm.nih.gov/pubmed/31617728

Hypoxia-ischemia in the immature rodent brain impairs serotonergic neuronal function in certain dorsal raphe nuclei
Reinebrant HE, Wixey JA and Buller KM. *Neural Regen Res.*
https://www.ncbi.nlm.nih.gov/pubmed/31571657

Cord blood s100b: reference ranges and interest for early identification of newborns with brain injury
Bouvier D, Giguère Y, Pereira B, et al. *Clin Chem Lab Med.*
https://www.ncbi.nlm.nih.gov/pubmed/31622243

ADDITIONAL JOURNAL SELECTIONS

Prone versus supine position for regional cerebral tissue oxygenation in preterm neonates receiving noninvasive ventilation
Barsan Kaya T, Aydemir O, Tekin AN, et al. *J Matern Fetal Neonatal Med.*
https://www.ncbi.nlm.nih.gov/pubmed/31615310

Impact of peri-intraventricular haemorrhage and periventricular leukomalacia in the neurodevelopment of preterms: a systematic review and meta-analysis
Gotardo JW, Volkmer NFV, Stangler GP, et al. *PLoS One.*
https://www.ncbi.nlm.nih.gov/pubmed/31600248

Cumulative evidence for association of sepsis and retinopathy of prematurity
Huang J, Tang Y, Zhu T, et al. *Medicine (Baltimore).*
https://www.ncbi.nlm.nih.gov/pubmed/31626109

Sex differences in brain connectivity and male vulnerability in very preterm children
Kozhemiako N, Nunes AS, Vakorin VA, et al. *Hum Brain Mapp.*
https://www.ncbi.nlm.nih.gov/pubmed/31587465

Adiposity and fat-free mass of children born with very low birth weight do not differ in children fed supplemental donor milk compared with those fed preterm formula
McGee M, Unger S, Hamilton J, et al. *J Nutr.*
https://www.ncbi.nlm.nih.gov/pubmed/31599955

Recent advances in our understanding of the mechanisms of lung alveolarization and bronchopulmonary dysplasia
Lignelli E, Palumbo F, Myti D, et al. *Am J Physiol Lung Cell Mol Physiol.*
https://www.ncbi.nlm.nih.gov/pubmed/31596603