Publications Working Group
Ayan Rajgarhia, Page Editor - Children's Mercy 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 – September 2019

Early childhood vaccination status of preterm infants
Hofstetter AM, Jacobson EN, deHart MP, et al. *Pediatrics.*

The authors used the Washington State Immunization Information System to assess vaccine status of infants born in a single urban academic medical center between 2008 and 2013. The population of 10,367 was divided into preterm (<37 weeks) and term (37-43 weeks). 19% were preterm. Overall completed vaccination rates were low, but preterm infants were undervaccinated at 19 and 36 months compared to the term population (47.5% vs 54.0% and 63.6% vs 71.3%, respectively). Flu vaccination was also lower in the preterm group.

Delivery room continuous positive airway pressure and pneumothorax
Smithhart W, Wyckoff MH, Kapadia V, et al. *Pediatrics.*

This study report on retrospective analysis of delivery room CPAP (without PPV) use in infants born 35-42 weeks at a single center from 2005-2015. Using facemask and NeoPuff, CPAP was typically started at 5cm H2O and increased to 8 if needed. CPAP with increased O2 increased over time, and CPAP with 21% O2 increased following updated NRP guidelines in 2011. Pneumothorax was more common among infants who received CPAP; this effect was greater in infants who received CPAP without supplemental O2. Only 7.9% of patients with pneumothorax received either thoracocentesis or thoracostomy, and no data are available for infants who received CPAP in the delivery room but were not admitted to the NICU.

Enhanced nutrient supply and intestinal microbiota development in very low birth weight infants
Blakstad EW, Korpela K, Lee S, et al. *Pediatr Res.*

Promoting a healthy intestinal microbiota may have positive effects on short- and long-term outcomes in very low birth weight (VLBW; BW < 1500 g) infants. 50 VLBW infants were randomized to an intervention group receiving enhanced nutrient supply or a control group. Fecal samples from 45 infants collected between birth and discharge were analyzed using 16S ribosomal RNA (rRNA) amplicon sequencing. Nutrition may affect richness, diversity, and microbiota composition. There was no increase in relative abundance of pathogens among infants receiving enhanced nutrient supply. Favorable microbiota development was associated with improved weight gain.

An economic analysis of human milk supplementation for very low birth weight babies in the USA (PDF)
Hampson G, Roberts SLE, Lucas A, et al. *BMC Pediatr.*
An exclusive human milk diet (EHMD) using human milk based products (pre-term formula and fortifiers) has been shown to lead to significant clinical benefits for very low birth weight (VLBW) babies (below 1250 g). The investigators conducted an economic analysis of EHMD compared to usual practice of care amongst VLBW babies in the US, which is to include cow's milk based products when required. An EHMD is dominant in cost-effectiveness terms, that is it is both cost-saving and clinically beneficial, for VLBW babies in a US-based setting.

Inadequate oral feeding as a barrier to discharge in moderately preterm infants
Edwards L, Cotten CM, Smith PB, et al. *J Perinatol.*

In this prospective study using the NICHD Neonatal research network data, it was found that inadequate oral feeding (IOF) was the most common barrier to discharge in moderately preterm infants, affecting 37% of them. IOF was associated with RDS, PDA, sepsis, NEC and BPD compared to infants discharged and was associated with medical NEC and BPD compared to infants remaining hospitalized for an alternative reason.

Bronchopulmonary dysplasia is associated with altered brain volumes and white matter microstructure in preterm infants
Lee JM, Choi YH, Hong J, et al. *Neonatology.*

In 56 preterm infants studied (33 with BPD and 23 without BPD), infants with BPD were found to have smaller cerebral white matter volumes, marked reductions in fractional anisotropy in the corpus callosum, corticospinal tract and superior cerebellar peduncle compared with the infants with no BPD, with a significance level of $p \leq 0.008$ as a Bonferroni correction for multiple comparisons highlighting the impact of BPD on neurodevelopment.

Inhaled epoprostenol for pulmonary hypertension treatment in neonates: A 12-Year experience
Berger-Caron F, Piedboeuf B, Morissette G, et al. *Am J Perinatol.*

This retrospective cohort study included infants < 28 days with PPHN treated with iPGI2 (epoprostenol) in the neonatal or pediatric intensive care units of a single institution between 2004 and 2016. A total of 43 patient episodes were reviewed. The authors found that oxygenation index and FiO2 decreased after initiation ($p=0.047$ and $p=0.0018$ respectively) and no significant adverse effects were reported.

Fetal exposure to maternal inflammation interrupts murine intestinal development and increases susceptibility to neonatal intestinal injury
Elgin TG, Fricke EM, Gong H, et al. *Dis Model Mech*.

To simulate fetal exposure to inflammation induced by chorioamnionitis, pregnant mice were injected intraperitoneally with lipopolysaccharide (LPS), after which pups were delivered at term. Induced inflammation had no effect on growth but decreased goblet and Paneth cells numbers, increased serum IL-6-dependent cytokines, and enhanced the susceptibility to LPS-induced intestinal injury later in life. These findings provide an explanation for the higher incidence of NEC in preterm infants exposed to chorioamnionitis.

Milk analysis using milk analyzers in a standardized setting (MAMAS) study: A multicentre quality initiative
Kwan C, Fusch G, Rochow N, et al. *Clin Nutr.*

To investigate consistency between human milk analyzers, the authors tested identical milk samples using the Unity SpectraStar and MIRIS Human Milk Analyzers. They identified significant variations in accuracy and precision between the analyzers' fat, protein and lactose measurements which were by minimized by establishing individual correction algorithms and inclusion of repeated assessments. The authors conclude that the variations are clinically relevant and highlight the need to follow GCLP when using milk analyzers to ensure proper adjustment of macronutrients.

Fraction of inspired oxygen as a predictor of CPAP failure in preterm infants with respiratory distress syndrome: a prospective multicenter study
Gulczyńska E, Szczapa T, Hożejowski R, et al. *Neonatology.*

In this multicenter, prospective study of infants <30 weeks gestation in whom CPAP was initiated within the first 15 min after birth, the authors investigated factors predictive of CPAP failure in the first 72 h, specifically the role of FiO2. Using logistic regression models, demographic, perinatal, and respiratory parameters were analyzed and FiO2 threshold was determined with ROC curves. CPAP failure occurred in 108/389 infants (27.8%). Birth weight and FiO2 in the second hour of life (prognostic threshold of FiO2=0.29) were significant predictors of CPAP failure. Non-responders to CPAP were noted have a higher incidence of complications such as pneumothorax, BPD and severe IVH and a higher mortality rate.

Factors impacting physician recommendation for tracheostomy placement in pediatric prolonged mechanical ventilation: a cross-sectional survey on stated practice
Meyer-Macaulay CB, Dayre McNally J, O'Hearn K, et al. *Pediatr Crit Care Med.*

This article details results of a cross sectional web-based survey of physicians practicing at 16 tertiary academic Canadian pediatric hospitals. Using specific cases, the authors sought to characterize their practices and influencing factors toward tracheostomy for prolonged mechanical ventilation. They concluded that physicians remain reluctant to recommend tracheostomy for children requiring prolonged ventilation due to lung disease alone at 3 weeks of mechanical ventilation. Upper airway obstruction was associated with increased willingness while life-limiting condition, severe neurologic injury, unrepaired congenital heart disease, multiple organ system failure, and noninvasive ventilation were associated with a decreased willingness to recommend tracheostomy in pediatric patients.

Pediatrics
Parenteral antibiotic therapy duration in young infants with bacteremic urinary tract infections
https://www.ncbi.nlm.nih.gov/pubmed/31431480
Early childhood vaccination status of preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31391213
Delivery room continuous positive airway pressure and pneumothorax
https://www.ncbi.nlm.nih.gov/pubmed/31399490
Maternal voice and infant sleep in the neonatal intensive care unit
https://www.ncbi.nlm.nih.gov/pubmed/31409691
Commentary: An end in sight: shorter duration of parenteral antibiotics in neonates
https://www.ncbi.nlm.nih.gov/pubmed/31431481
Commentary: Understanding the risks and benefits of delivery room CPAP for term infants
https://www.ncbi.nlm.nih.gov/pubmed/31399489
Prenatal opioid exposure: neurodevelopmental consequences and future research priorities

https://www.ncbi.nlm.nih.gov/pubmed/31462446
Does it matter if this baby is 22 or 23 weeks?
https://www.ncbi.nlm.nih.gov/pubmed/31395622
Reducing variability in the infant sepsis evaluation (revise): a national quality initiative
https://www.ncbi.nlm.nih.gov/pubmed/31434688

Journal of Pediatrics
Short sleep duration and later overweight in infants
https://www.ncbi.nlm.nih.gov/pubmed/31208782
Prenatal, perinatal, and early childhood factors associated with childhood obstructive sleep apnea
https://www.ncbi.nlm.nih.gov/pubmed/31253409
Neonatal antibiotics and prematurity are associated with an increased risk of functional gastrointestinal disorders in the first year of life
https://www.ncbi.nlm.nih.gov/pubmed/31201028
Associations of neonatal noncardiac surgery with brain structure and neurodevelopment: A prospective case-control study
https://www.ncbi.nlm.nih.gov/pubmed/31235385
Risk of meningitis in infants aged 29 to 90 days with urinary tract infection: A systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/31230888
Late-onset circulatory collapse and risk of cerebral palsy in extremely preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31229321
Randomized controlled trial of iron-fortified versus low-iron infant formula: Developmental outcomes at 16 years
https://www.ncbi.nlm.nih.gov/pubmed/31253407
Association of neonatologist continuity of care and short-term patient outcomes
https://www.ncbi.nlm.nih.gov/pubmed/31201026
Echography-guided surfactant therapy to improve timeliness of surfactant replacement: A quality improvement project
https://www.ncbi.nlm.nih.gov/pubmed/31079857
Follow-up after percutaneous patent ductus arteriosus occlusion in lower weight infants
https://www.ncbi.nlm.nih.gov/pubmed/31262530
Implications of mothers' social networks for risky infant sleep practices
https://www.ncbi.nlm.nih.gov/pubmed/31201032
Small-for-gestational age birth confers similar educational performance through middle school
https://www.ncbi.nlm.nih.gov/pubmed/31301852
Necrotizing enterocolitis: Using regulatory science and drug development to improve outcomes
https://www.ncbi.nlm.nih.gov/pubmed/31235383
Comparing the risk of sudden unexpected infant death to common causes of childhood injury death
https://www.ncbi.nlm.nih.gov/pubmed/31229319
A low cost, skin-color-matching tool to detect hyperbilirubinemia
https://www.ncbi.nlm.nih.gov/pubmed/31439166
A significant portion of sudden unexpected infant death appears attributable to suffocation
https://www.ncbi.nlm.nih.gov/pubmed/31439167
Stem cells for bronchopulmonary dysplasia: A promising yet challenging journey lies ahead
https://www.ncbi.nlm.nih.gov/pubmed/31255387
More on the impact of American Academy of Pediatrics palivizumab guidance for infants with respiratory syncytial virus infection
https://www.ncbi.nlm.nih.gov/pubmed/31204022

Pediatric Research

Commentary on enhanced nutrient supply and intestinal microbiota development in very low birth weight infants
https://www.ncbi.nlm.nih.gov/pubmed/31200389

Regional tissue oxygenation monitoring in the neonatal intensive care unit: evidence for clinical strategies and future directions
https://www.ncbi.nlm.nih.gov/pubmed/31247635

Cord blood leptin DNA methylation levels are associated with macrosomia during normal pregnancy
https://www.ncbi.nlm.nih.gov/pubmed/31117117

ABO blood group and procoagulant factors: the hypercoagulation hypothesis ABO and Procoagulant factors
https://www.ncbi.nlm.nih.gov/pubmed/31158844

Enhanced nutrient supply and intestinal microbiota development in very low birth weight infants
https://www.ncbi.nlm.nih.gov/pubmed/31086354

Exploration of potential biochemical markers for persistence of patent ductus arteriosus in preterm infants at 22–27 weeks' gestation
https://www.ncbi.nlm.nih.gov/pubmed/30287890

Adrenal function links to early postnatal growth and blood pressure at age 6 in children born extremely preterm
https://www.ncbi.nlm.nih.gov/pubmed/30631138

Heart rate fluctuation after birth predicts subsequent cardiorespiratory stability in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31086292

Comparison of MRI and neurosonogram 1- and 2-dimensional morphological measurements of the newborn corpus callosum
https://www.ncbi.nlm.nih.gov/pubmed/30965354

Altered neonatal white and gray matter microstructure is associated with neurodevelopmental impairments in very preterm infants with high-grade brain injury
https://www.ncbi.nlm.nih.gov/pubmed/31212303

Forced oscillation measurements in the first week of life and pulmonary outcome in very preterm infants on noninvasive respiratory support
https://www.ncbi.nlm.nih.gov/pubmed/31108499

Maternal anemia type during pregnancy is associated with anemia risk among offspring during infancy
https://www.ncbi.nlm.nih.gov/pubmed/31129681

Moderate altitude impacts birth weight: 30 years retrospective sibling analyses using record linkage data
https://www.ncbi.nlm.nih.gov/pubmed/31112991

Family reflections: prematurity
https://www.ncbi.nlm.nih.gov/pubmed/30763950

Insights image for exploration of potential biochemical markers for persistence of patent ductus arteriosus in preterm infants at 22–27 weeks' gestation
https://www.ncbi.nlm.nih.gov/pubmed/31195403

Journal of Perinatology

Supporting breastfeeding for women on opioid maintenance therapy: a systematic review
https://www.ncbi.nlm.nih.gov/pubmed/31263203

The association between the legalization of recreational marijuana and both small for gestational age births and NICU admissions in Colorado
https://www.ncbi.nlm.nih.gov/pubmed/31270431

Short interpregnancy interval as a risk factor for preterm birth in non-Hispanic Black and White women in California
https://www.ncbi.nlm.nih.gov/pubmed/31209276

Practical considerations with 17-Hydroxyprogesterone caproate for preterm birth prevention: does timing of initiation and compliance matter?

https://www.ncbi.nlm.nih.gov/pubmed/31217529
Contribution of previable births to infant mortality rate racial disparity in the United States
https://www.ncbi.nlm.nih.gov/pubmed/31089258
Results of full postmortem examination in a cohort of clinically unexplained stillbirths: undetected fetal growth restriction and placental insufficiency are prevalent findings
https://www.ncbi.nlm.nih.gov/pubmed/31266993
Patient and hospital characteristics associated with severe maternal morbidity among postpartum readmissions
https://www.ncbi.nlm.nih.gov/pubmed/31312037
Cefazolin pharmacokinetics in premature infants
https://www.ncbi.nlm.nih.gov/pubmed/30944398
Inadequate oral feeding as a barrier to discharge in moderately preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31296918
Birth weight discordance in very low birth weight twins: mortality, morbidity, and neurodevelopment
https://www.ncbi.nlm.nih.gov/pubmed/31312035
Impact of feeding difficulties in the NICU on neurodevelopmental outcomes at 8 and 20 months corrected age in extremely low gestational age infants
https://www.ncbi.nlm.nih.gov/pubmed/31300707
Comparing videofluoroscopy and endoscopy to assess swallowing in bottle-fed young infants in the neonatal intensive care unit
https://www.ncbi.nlm.nih.gov/pubmed/31332272
Transitioning from gavage to full oral feeds in premature infants: When should we discontinue the nasogastric tube?
https://www.ncbi.nlm.nih.gov/pubmed/31366911
Renal function in small for gestational age preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31316148
Trends in reticulocyte hemoglobin equivalent values in critically ill neonates, stratified by gestational age
https://www.ncbi.nlm.nih.gov/pubmed/31350450
Bronchopulmonary dysplasia: risk prediction models for very-low- birth-weight infants
https://www.ncbi.nlm.nih.gov/pubmed/31337853
Correlating objective echocardiographic parameters in patients with pulmonary hypertension due to bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/31312036
Medication use in infants with severe bronchopulmonary dysplasia admitted to United States children's hospitals
https://www.ncbi.nlm.nih.gov/pubmed/31227785
Neurodevelopmental outcomes in infants treated with intravitreal bevacizumab versus laser
https://www.ncbi.nlm.nih.gov/pubmed/31341226
Improving preoperative identification of infants at risk for severe retinopathy of prematurity
https://www.ncbi.nlm.nih.gov/pubmed/31089254
Implementation of a probiotic protocol to reduce rates of necrotizing enterocolitis
https://www.ncbi.nlm.nih.gov/pubmed/31358866

Neonatology

Mask versus prongs for nasal continuous positive airway pressure in preterm infants: a systematic review and meta-analysis
https://www.ncbi.nlm.nih.gov/pubmed/31163418
Four-dimensional ultrasound for evaluating newborn cardiac output: a pilot study of healthy infants
https://www.ncbi.nlm.nih.gov/pubmed/31137032
Are neonatal trials better conducted and reported over the last 6 decades? an analysis on their risk-of-bias status in cochrane reviews
https://www.ncbi.nlm.nih.gov/pubmed/31108494

Cerebral oxygenation in neonates immediately after cesarean section and mode of maternal anesthesia
https://www.ncbi.nlm.nih.gov/pubmed/31096224
Lung ultrasound to assess the etiology of persistent pulmonary hypertension of the newborn (lupphyn study): a pilot study
https://www.ncbi.nlm.nih.gov/pubmed/31096216
Accuracy of brain natriuretic peptide for diagnosing pulmonary hypertension in severe bronchopulmonary dysplasia
https://www.ncbi.nlm.nih.gov/pubmed/31096210
Phenobarbital, midazolam pharmacokinetics, effectiveness, and drug-drug interaction in asphyxiated neonates undergoing therapeutic hypothermia
https://www.karger.com/article/pdf/499330
Bronchopulmonary dysplasia is associated with altered brain volumes and white matter microstructure in preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31112968
Fraction of inspired oxygen as a predictor of CPAP failure in preterm infants with respiratory distress syndrome: a prospective multicenter study
https://www.karger.com/article/pdf/499674
FEEDMI: a study protocol to determine the influence of infant-feeding on very-preterm-infant's gut microbiota
https://www.ncbi.nlm.nih.gov/pubmed/31132782

American Journal of Perinatology

Pediatric nurses' knowledge of and self-efficacy in breastfeeding counseling
https://www.ncbi.nlm.nih.gov/pubmed/30551232
Associations between maternal exposure to bisphenol A or triclosan and gestational hypertension and preeclampsia: The MIREC study
https://www.ncbi.nlm.nih.gov/pubmed/30551231
Distribution of late-onset neonatal sepsis pathogens differs in inpatient and outpatient settings
https://www.ncbi.nlm.nih.gov/pubmed/30551230
Inhaled epoprostenol for pulmonary hypertension treatment in neonates: A 12-Year experience
https://www.ncbi.nlm.nih.gov/pubmed/30551229
Therapeutic hypothermia in Brazil: A multiprofessional national survey
https://www.ncbi.nlm.nih.gov/pubmed/30553235
An accurate automated local similarity factor-based neural tree approach toward tissue segmentation of newborn brain MRI
https://www.ncbi.nlm.nih.gov/pubmed/30553234
Association between uterine tachysystole during the last hour of labor and cord blood lactate in parturients at term gestation
https://www.ncbi.nlm.nih.gov/pubmed/30567001
Obestatin reduces intestinal damage in experimental necrotizing enterocolitis in newborn rats
https://www.ncbi.nlm.nih.gov/pubmed/30567000
Can platelet mass index be a parameter to predict intraventricular hemorrhage in very-low-birth-weight newborns?
https://www.ncbi.nlm.nih.gov/pubmed/30566999
Central versus low-lying umbilical venous catheters: A multicenter study of practices and complications
https://www.ncbi.nlm.nih.gov/pubmed/30566998
The association between oxidative stress and cardiac functions in infants born to preclamptic mothers
https://www.ncbi.nlm.nih.gov/pubmed/30583298

Neoreviews

Noninvasive ventilation in the delivery room for the preterm infant
https://neoreviews.aappublications.org/content/20/9/e489
Oxygen therapy for neonatal resuscitation in the delivery room
https://neoreviews.aappublications.org/content/20/9/e500
Caveats of cooling: available evidence and ongoing investigations of therapeutic hypothermia
https://neoreviews.aappublications.org/content/20/9/e513
Case 1: preterm neonate with hydrops and lactic acidosis
https://neoreviews.aappublications.org/content/20/9/e520
Case 2: severe respiratory distress at birth: a rare cause
https://neoreviews.aappublications.org/content/20/9/e524
Case 3: late preterm infant with respiratory distress
https://neoreviews.aappublications.org/content/20/9/e527
Strip of the month: fetal decelerations: use of vacuum assistance to achieve a vaginal delivery
https://neoreviews.aappublications.org/content/20/9/e530
Legal briefs: venous catheter tips need to stay out of the heart
https://neoreviews.aappublications.org/content/20/9/e543
A newborn with progressive generalized red-purple papules and plaques
https://neoreviews.aappublications.org/content/20/9/e539

JAMA Pediatrics

Prenatal special supplemental nutrition program for women, infants, and children participation: A step toward human capital development
https://www.ncbi.nlm.nih.gov/pubmed/31260027
Association of revised WIC food package with perinatal and birth outcomes: A quasi-experimental study
https://www.ncbi.nlm.nih.gov/pubmed/31260072
Disclosure of infant unsafe sleep practices by African American mothers in primary care settings
https://www.ncbi.nlm.nih.gov/pubmed/31260002

BMC Pediatrics

Improvement in gross motor function and muscle tone in children with cerebral palsy related to neonatal icterus: an open-label, uncontrolled clinical trial (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6704727/pdf/12887_2019_Article_1669.pdf
Imperforate anus associated with anomalous pulmonary venous return in scimitar syndrome. Case report from a tertiary hospital in Ethiopia (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6710880/pdf/12887_2019_Article_1643.pdf
Comparison of NIV-NAVA and NCPAP in facilitating extubation for very preterm infants (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6712684/pdf/12887_2019_Article_1683.pdf
Congenital bronchopulmonary foregut malformation: systematic review of the literature (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6721191/pdf/12887_2019_Article_1686.pdf
Reducing preterm mortality in eastern Uganda: the impact of introducing low-cost bubble CPAP on neonates <1500 g (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6724283/pdf/12887_2019_Article_1698.pdf
Does the fortified milk with high iron dose improve the neurodevelopment of healthy infants? Randomized controlled trial (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6727503/pdf/12887_2019_Article_1679.pdf
Optimizing gentamicin conventional and extended interval dosing in neonates using Monte Carlo simulation – a retrospective study (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6729057/pdf/12887_2019_Article_1676.pdf
A review of -multidrug-resistant Enterobacteriaceae in a neonatal unit in Johannesburg, South Africa (PDF)

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6731552/pdf/12887_2019_Article_1709.pdf
Multicenter prospective clinical study to evaluate children short-term neurodevelopmental outcome in congenital heart disease (children NEURO-HEART): study protocol (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6737686/pdf/12887_2019_Article_1689.pdf
Newborn gender as a predictor of neonatal outcome in mixed gender twins born with very low birth weight (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6737713/pdf/12887_2019_Article_1713.pdf
Early prediction of spontaneous Patent Ductus Arteriosus (PDA) closure and PDA-associated outcomes: a prospective cohort investigation (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6743099/pdf/12887_2019_Article_1708.pdf
An economic analysis of human milk supplementation for very low birth weight babies in the USA (PDF)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6744712/pdf/12887_2019_Article_1691.pdf

Pediatric Critical Care Medicine
Antibiotic prophylaxis for open chest management after pediatric cardiac surgery
https://www.ncbi.nlm.nih.gov/pubmed/31107376
Current epidemiology of vocal cord dysfunction after congenital heart surgery in young infants
https://www.ncbi.nlm.nih.gov/pubmed/31246739
Impact of age of packed RBC transfusion on oxygenation in patients receiving extracorporeal membrane oxygenation
https://www.ncbi.nlm.nih.gov/pubmed/31232850
Criteria for critical care infants and children: PICU admission, discharge, and triage practice statement and levels of care guidance
https://www.ncbi.nlm.nih.gov/pubmed/31483379
Superiority of dynamic needle tip positioning for ultrasound-guided peripheral venous catheterization in patients younger than 2 years old: a randomized controlled trial
https://www.ncbi.nlm.nih.gov/pubmed/31232853
Factors impacting physician recommendation for tracheostomy placement in pediatric prolonged mechanical ventilation: a cross-sectional survey on stated practice
https://www.ncbi.nlm.nih.gov/pubmed/31246744

Lancet
Planned early delivery or expectant management for late preterm pre-eclampsia (PHOENIX): a randomised controlled trial
https://www.ncbi.nlm.nih.gov/pubmed/30773459

New England Journal of Medicine
A randomized trial of prenatal n−3 fatty acid supplementation and preterm delivery
https://www.ncbi.nlm.nih.gov/pubmed/31509674
Perilous politics — morbidity and mortality in the Pre-Roe era
https://www.ncbi.nlm.nih.gov/pubmed/31483960
Parenting during graduate medical training — practical policy solutions to promote change
https://www.ncbi.nlm.nih.gov/pubmed/31509672
Breaching the professional–personal boundary — an unrecognized risk for burnout
https://www.ncbi.nlm.nih.gov/pubmed/31509673

JAMA
Mediterranean diet during pregnancy
https://www.ncbi.nlm.nih.gov/pubmed/31550027
Optimal gestational weight gain.
https://www.ncbi.nlm.nih.gov/pubmed/31529002

Incidence of maternal sepsis and sepsis-related maternal deaths in the United States
https://www.ncbi.nlm.nih.gov/pubmed/31479129

Pediatric Infectious Disease Journal

A clinical score to support antiretroviral management of HIV-exposed infants on the day of birth
https://www.ncbi.nlm.nih.gov/pubmed/31107423
Gram-negative late-onset sepsis in extremely low birth weight infants is emerging in the Netherlands despite quality improvement programs and antibiotic stewardship
https://www.ncbi.nlm.nih.gov/pubmed/31274834

Pediatric Neurology

The risk of developing secondary central nervous system tumors after diagnostic irradiation from computed tomography in pediatrics: A literature review
https://www.ncbi.nlm.nih.gov/pubmed/31235364
Impact of age and motor function in a phase 1/2A study of infants with SMA type 1 receiving single-dose gene replacement therapy
https://www.ncbi.nlm.nih.gov/pubmed/31277975
Early detection of cerebral palsy using sensorimotor tract biomarkers in very preterm infants
https://www.ncbi.nlm.nih.gov/pubmed/31201071
Early amplitude-integrated electroencephalography predicts long-term outcomes in term and near-term newborns with severe hyperbilirubinemia
https://www.ncbi.nlm.nih.gov/pubmed/31253564

Obstetrics and Gynecology

Association of labor with neonatal respiratory outcomes at 36–40 weeks of gestation
https://www.ncbi.nlm.nih.gov/pubmed/31403604
Perinatal Palliative Care ACOG COMMITTEE OPINION SUMMARY, Number 786
https://www.ncbi.nlm.nih.gov/pubmed/31441821

American Journal of Obstetrics & Gynecology

Association between hypertensive disorders and fetal growth restriction in twin compared with singleton gestations
https://www.ncbi.nlm.nih.gov/pubmed/31029663
Comparing pregnancy outcomes and loss rates in elective twin pregnancy reduction with ongoing twin gestations in a large contemporary cohort
https://www.ncbi.nlm.nih.gov/pubmed/30995460

BASIC SCIENCE SELECTIONS

Alterations in glucose concentrations affect DNA methylation at Lrg1 in an ex vivo rat cortical slice model of preterm brain injury
Cartier J, Piyasena C, Sparrow SA, et al. *Eur J Neurosci.*
https://www.ncbi.nlm.nih.gov/pubmed/31512324

Early life supraphysiological levels of oxygen exposure permanently impairs hippocampal mitochondrial function
Ramani M, Miller K, Brown J, et al. *Sci Rep*.
https://www.ncbi.nlm.nih.gov/pubmed/31527593

Tissue injury and astrocytic reaction, but not cognitive deficits, are dependent on hypoxia duration in very immature rats undergoing neonatal hypoxia-ischemia
Durán-Carabali LE, Sanches EF, Odorcyk FK, et al. *Neurochem Res.*
https://www.ncbi.nlm.nih.gov/pubmed/31564017

Gestational age influences the early microarchitectural changes in response to mechanical ventilation in the preterm lamb lung
Oakley RB, Tingay DG, McCall KE, et al. *Front Pediatr*.
https://www.ncbi.nlm.nih.gov/pubmed/31497582

Fetal exposure to maternal inflammation interrupts murine intestinal development and increases susceptibility to neonatal intestinal injury
Elgin TG, Fricke EM, Gong H, et al. *Dis Model Mech.*
https://www.ncbi.nlm.nih.gov/pubmed/31537532

Prematurity blunts the feeding-induced stimulation of translation initiation signaling and protein synthesis in muscle of neonatal piglets
Naberhuis JK, Suryawan A, Nguyen HV, et al. *Am J Physiol Endocrinol Metab.*
https://www.ncbi.nlm.nih.gov/pubmed/31503514

TLR (toll-like receptor) 4 antagonism prevents left ventricular hypertrophy and dysfunction caused by neonatal hyperoxia exposure in rats
Mian MOR, He Y, Bertagnolli M, et al. *Hypertension.*
https://www.ncbi.nlm.nih.gov/pubmed/31476902

The duration of fetal antenatal steroid exposure determines the durability of preterm ovine lung maturation
Kemp MW, Saito M, Schmidt AF, et al. *Am J Obstet Gynecol.*
https://www.ncbi.nlm.nih.gov/pubmed/31494126

Lactoferrin-induced myeloid-derived suppressor cell therapy attenuates pathologic inflammatory conditions in newborn mice
Liu Y, Perego M, Xiao Q, et al. *J Clin Invest.*
https://www.ncbi.nlm.nih.gov/pubmed/31483289

Advanced MRI analysis to detect white matter brain injury in growth restricted newborn lambs
Malhotra A, Sepehrizadeh T, Dhollander T, et al. *Neuroimage Clin.*
https://www.ncbi.nlm.nih.gov/pubmed/31473545

TNF-alpha antagonist attenuates systemic lipopolysaccharide-induced brain white matter injury in neonatal rats
Shin SH, Kim EK, Lee KY, et al. *BMC Neurosci*.
https://www.ncbi.nlm.nih.gov/pubmed/31470812

Clinical/Translational
Comparison between weight gain and Fenton preterm growth z scores in assessing the risk of retinopathy of prematurity
Cerda AM, McCourt EA, Thevarajah T, et al. *J AAPOS.*
https://www.ncbi.nlm.nih.gov/pubmed/31520720

Airway obstruction in young adults born extremely preterm or extremely low birth weight in the postsurfactant era
Doyle LW, Irving L, Haikerwal A, et al. *Thorax*.
https://www.ncbi.nlm.nih.gov/pubmed/31558625

Decreased pulmonary capillary volume in adolescents born very preterm
Drummond D, Hadchouel A, Le Bourgeois M, et al. *Acta Paediatr.*
https://www.ncbi.nlm.nih.gov/pubmed/31531873

Attainment targets for protein intake using standardised, concentrated and individualised neonatal parenteral nutrition regimens
Morgan C and Tan M. *Nutrients*.
https://www.ncbi.nlm.nih.gov/pubmed/31509953

Mesenchymal stem cells for the prevention of bronchopulmonary dysplasia
Namba F. *Pediatr Int.*
https://www.ncbi.nlm.nih.gov/pubmed/31487104

Immune and inflammatory proteins in cord blood as predictive biomarkers of retinopathy of prematurity in preterm infants
Park YJ, Woo SJ, Kim YM, et al. *Invest Ophthalmol Vis.* Sci.
https://www.ncbi.nlm.nih.gov/pubmed/31525777

Postnatal cerebral hyperoxia is associated with an increased risk of severe retinopathy of prematurity retinopathy of prematurity
Richter AE, Bos AF, Huiskamp EA, et al. *Neonatology.*
https://www.ncbi.nlm.nih.gov/pubmed/31487704

Effect of early versus standard central line removal on growth of very low birthweight premature infants: a protocol for a non-inferiority randomised controlled trial
Romańska J, Margas W, Bokiniec R, et al. *BMJ Open*.
https://www.ncbi.nlm.nih.gov/pubmed/31530607

High mobility group box 1 protein (HMGB1) as biomarker in hypoxia-induced persistent pulmonary hypertension of the newborn: a clinical and in vivo pilot study
Tang Z, Jiang M, Ou-Yang Z, et al. *Int J Med Sci*.
https://www.ncbi.nlm.nih.gov/pubmed/31523175

Milk analysis using milk analyzers in a standardized setting (MAMAS) study: A multicentre quality initiative
Kwan C, Fusch G, Rochow N, et al. *Clin Nutr.*
https://www.ncbi.nlm.nih.gov/pubmed/31526612