

EDITOR'S FOCUS

Volume 88 No. 4 October 2020

Early Career Investigator



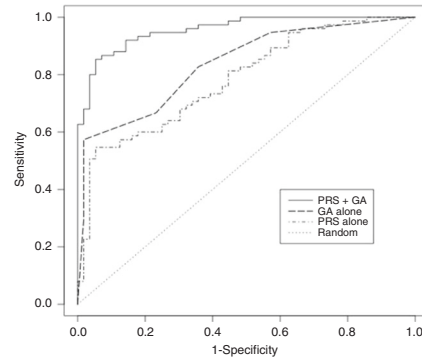
Congratulations to Ashley Merianos, the Early Career Investigator for October. Dr. Merianos grew up in Cincinnati, OH, and obtained four degrees from the University of Cincinnati, including her doctorate. She is passionate about integrated health services promotion focused on underserved pediatric populations, with a particular emphasis on tobacco exposure. In this issue, Dr. Merianos and colleagues provide evidence that children exposed to tobacco are high utilizers of healthcare resources. She points out that success is not often linear, requiring flexibility, but the detours can provide invaluable learning opportunities. See pages 522 and 571.

Involving families reduces late-onset sepsis in preterm infants



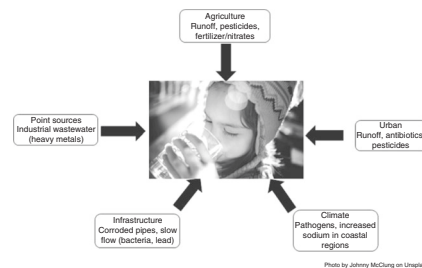
A growing body of evidence outlines the advantages of single-family rooms (SFRs) in neonatal intensive care units. One such benefit is a reduction in late-onset sepsis (LOS). In a study by van Veenendaal et al., SFRs coupled with implementation of an integrated family care program led to reduced LOS and length of hospitalization in preterm infants. This association appeared to be partially mediated through a reduction in use of a central venous line and parenteral nutrition support. An accompanying Comment contextualizes these findings with other studies demonstrating improved parent–infant bonding and parental well-being in SFR environments. In an Insights piece, a mother describes the emotional impact of neonatal sepsis, which sparked her advocacy for increased sepsis awareness. See pages 593, 533 and 681.

Genetic risk and complications of prematurity



Within the preterm population, neonatal complications are distributed unevenly but are closely associated with decreasing gestational age, male sex, and Caucasian race among many other factors. Genetic factors also influence neonatal complications such as bronchopulmonary dysplasia and retinopathy of prematurity, but individual genetic risk is often difficult to assign. Stewart and colleagues examined exomes from preterm infants and derived a polygenic risk score (PRS) for neonatal complications. Interestingly, PRS was highly predictive of neonatal complications and, when combined with gestational age, derived an area under the curve of 0.87. These findings point to the strong genetic influence on morbidity in preterm neonates. See page 653.

Society for Pediatric Research draws attention to water contaminants



In this comprehensive review, Bantol and colleagues summarize the robust body of evidence supporting water contaminants as an important source of disease in children and describe strategies for prevention and intervention as well as comments on US policy pertaining to regulation of water toxicants. Importantly, they point out that water contaminants represent a vivid example of health disparity in vulnerable and poor populations. Their call to action is supported by an accompanying Comment that discusses modern-day opportunities for, as well as threats to, successful implementation of clean water for all in the United States. See pages 535 and 529.

Predicting the timing of thelarche



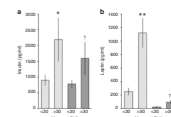
Thelarche—the initiating event of puberty—occurs earlier in obese and African-American girls. Savinainen and colleagues identified child- and parent-related predictors of age at thelarche in nearly 200 Caucasian females. Body fat percentage and exposure to parental smoking were strongly associated with earlier thelarche in the cohort, and height was associated with earlier thelarche after correction for body mass index. These findings may assist pediatric healthcare providers in counseling families and provide additional evidence for limiting tobacco smoke exposure in children. (Photo: Martin Barraud/Getty.) See page 676.

Maternal hypertension and neurodevelopmental impairment in offspring



There has been conflicting evidence regarding whether maternal hypertension during pregnancy is associated with cognitive impairment and/or developmental delay in offspring. Some of this discrepancy may be explained by the various classifications of maternal hypertension identified during pregnancy. Chen and colleagues identified several nuanced relationships between etiology of maternal hypertension and subcategories reflecting offspring neurodevelopment at 6 months of age, and these relationships were preserved in multivariate analysis. Their report suggests that maternal hypertension is an important, independent contributor to neurodevelopmental outcomes in infancy (Photo: Jamie Grill/Getty.) See page 668.

Pasteurization removes hormones from human milk



Vass et al. assessed milk samples from mothers of preterm infants and donor milk for metabolically active hormones to determine how Holder pasteurization affects their concentration. They found that leptin is highly concentrated in preterm human milk and is reduced more than eightfold by Holder pasteurization. In comparison to pasteurized term milk, unpasteurized preterm human milk is enriched for leptin (~16-fold) and exhibits lower cortisol concentrations. These important observations highlight several differences in human milk-based diets for preterm infants. See page 612.